

Haemorrhoids

Women are particularly prone to haemorrhoids, or ‘piles’ as they are commonly known, which are varicose veins that form inside the rectum. Sometimes after childbirth or following an episode of constipation, because of the straining and pressure in the area, they become external, and resemble a small bunch of grapes. They can vary from being mildly uncomfortable to extremely painful, and they often bleed, as their thin walls may be ruptured by a passing motion.

Our veins contain valves, which prevent blood flowing backwards. When the vessels are healthy and strong, this system works well. However, when the valves themselves become weak and inefficient, blood flows backwards and pools at certain points making the vessel wall swell out into a varicose vein.

What are the symptoms?

- Pressure and a feeling that ‘everything is falling out’ of your rectum.
- Soreness, irritation and sometimes sharp pains in the rectum.
- Itchiness around the anus.
- Small amounts of fresh red blood in the stools.

What causes them?

- The constant pressure of carrying a baby during pregnancy can precipitate haemorrhoids in a woman who has not previously been a sufferer.
- Straining on the toilet when constipated can weaken the vessel walls in the area.
- Lack of adequate nutrition – for example we know that vitamin C and bioflavonoids are necessary for the health of the walls of our blood vessels.
- Lifting heavy goods on a regular basis.
- Bouts of coughing.

What your doctor can do

- Examine your back passage to determine whether haemorrhoids are present, or whether there is likely to be any other physical problem, like a tear or a growth.
- Prescribe some soothing cream, suppositories or topical anaesthetic to help relieve the pain, if it is severe.
- Supply you with an anal dilator to manually replace external haemorrhoids after a motion.

- An enlightened doctor will tell you to increase your consumption of fruit and vegetable fibre, but not necessarily cereal fibre, which can sometimes make constipation worse.
- Give you, or refer you for, a course of injections, which over a period of three months cause the haemorrhoids to shrink.
- In severe cases, refer you for surgical removal of the haemorrhoids. This is a particularly painful operation, and there is no guarantee that the haemorrhoids won't re-form, unless you tackle the underlying cause.

What you can do

- Keep your motions very soft by eating a good diet. Follow the recommendations for The Very Nutritious Diet on page 437 or, if you think you may have food sensitivities, follow the recommendations for The Simple Exclusion Diet on page 460.
- Take supplements of magnesium at night to keep the motions soft, and two tablespoons of organic linseeds with your morning cereal to make the motions smooth, rather than dry and lumpy. The magnesium needs to be taken to gut tolerance level (see Constipation, page 136). This will prevent you from straining, which stresses the haemorrhoids further.
- Drink plenty of fruit juice, water and herbal tea.
- After each motion, gently bathe your tail end, and use some soothing herbal cream, either from the health-food shop or ask your herbal practitioner to make up a prescription for you.
- If you have external haemorrhoids, take care to manually replace them with an anal dilator greased with herbal cream.
- During an acute episode, keep your feet up when you can, until the pain and soreness has diminished.
- Make up a small bag of frozen peas and sit on it for 10 minutes. This should be repeated throughout the day when symptoms flare up, and will help to reduce the swelling and inflammation in the area.
- Take warm baths or showers rather than hot baths, as the intense heat may encourage even more blood into the area.
- Take regular exercise, including exercises for your pelvic floor and your tail end. Draw your muscles in as if you are trying to stop the flow of urine mid-cycle. Hold it for the count of ten, and then slowly release. You can repeat this exercise at convenient moments during the day.

Complementary therapies

Acupuncture, homeopathy, herbal medicine and cranial osteopathy all have something to offer in their own way. Improving the flow of fluid around the body will help to unblock the areas of stagnation. Additionally acupuncture may also be able to help strengthen the walls of the vessels.

See also: Standard references.

Hair Loss

There are different patterns of hair loss in women and men. In men there is often a receding hair line which is due to the action of the male hormone testosterone. Women may occasionally experience this pattern, but more usually have either generalised diffuse hair loss or alopecia areata.

Alopecia areata involves discrete patches of hair loss that are completely bald. It is common in young adults, and often recovers spontaneously. Treatment sometimes involves injection of steroids and always patience. There seems to be little that the patient can do to speed up the natural turn of events. Diffuse hair loss is exactly what it says it is, with generalised thinning and loss of hair from the top of the head. Generalised, often mild, scalp hair loss can also accompany any disease of the scalp such as psoriasis and eczema.

Research has shown that a large proportion of women reporting hair loss had low ferritin levels. The main reason for this is due to the loss of blood during menstruation, which is just enough to cause a gradual depletion of iron stores, particularly in women who suffer with heavy periods or eat little or no red meat.

What your doctor can do

He can investigate the cause by checking for:

- an underactive thyroid gland or other hormonal disturbance.
- a pregnancy.
- a fever or any severe illness.
- a side-effect of drugs.
- iron deficiency, or a mild lack of iron, might follow blood donation.

What you can do

- Eat The Very Nutritious Diet (page 437).
- Take a supplement of iron if you are anaemic or if the haemoglobin level is normal but at the lower end (11.0 to 12.5 mg/dl). A small supplement such as one tablet of Ferrous Sulphate taken daily with fruit juice for six months is safe and should correct any mild deficiency. You will need to take it for six months though as recovery is slow.
- Vitamin C works synergistically with iron, enhancing its absorption. Take a supplement of at least 1000 mg a day, and ensure that you drink a glass of orange juice when taking your iron supplement.
- Avoid tea as it contains tannin. This binds with iron, therefore inhibiting its absorption.
- Supplements of zinc and multi-vitamins might be helpful. Again they will need to be taken for several months.

Complementary therapies

Watch out for some unusual shampoos. Local applications are unlikely to make much difference and sensitisation can occur. For advice see a qualified trichologist (see your local Yellow Pages).

Halitosis

Bad breath, or halitosis as it is medically known, is detected in most cases by someone other than the sufferer themselves. It is not a very social topic of conversation, and even dentists, who are responsible for keeping us orally fit, are sometimes embarrassed about mentioning it to a patient. In the UK only four out of ten of us visit the dentist regularly, and some 15 per cent of regulars have moderate to severe gum disease, which is thought to cause some 60 per cent of bad breath.

The mere thought that our breath may be unsavoury does little for our self-confidence, and is likely to make us feel introverted and nervous. If you think you may be a sufferer check it out with your partner or a close friend, and ask them to be absolutely honest. A bad taste in your mouth doesn't always translate to a bad smell, and it is difficult to smell your own breath. If you do suffer, you need to know so that you can deal with it without delay.

What causes it?

- The most serious cause is an infection of the gums, where the bone supporting the teeth is eaten away after plaque (bacteria in the mouth) has been allowed to stagnate in the pockets of gum surrounding the teeth. Plaque becomes rotten and smelly as it ages, which is what causes the odour.

The milder form of gum disease is known as gingivitis, which means inflammation of the gums, and a more advanced form, which involves bone resorption, is called periodontitis or periodontosis. Not all gum infections cause bad breath though. It usually has to be an acute flare up or advanced gum disease before it affects the nostrils of others. Acute ulcerative gingivitis, or trench mouth as it more commonly known, will make the breath smell foul, and should be treated quickly.

- Stomach disorders such as hiatus hernia can create an oral odour.
- Infections of the tonsils and respiratory tract may also make the mouth smell.
- Hormonal changes, particularly a rise in the level of the hormone progesterone, can cause gums to be swollen, resulting in a bad taste and sometimes a bad smell. This is why symptoms are sometimes worse before a period or during pregnancy.

- A dry mouth, which can arise from stress or other illnesses, or simply as a result of too much exertion and not enough fluid, often causes bad breath.
- Food allergies often cause a reflux, food returning to the mouth after it has been digested, which is smelly.
- Crash diets affect the flow of saliva, and this is the body's natural mouth wash, flushing away odour-producing bacteria. Some drugs like sleeping pills can also dry the mouth. Constipation can be associated with halitosis (see page 136).

What your doctor can do

- Check to see whether you have a hiatus hernia, an upper respiratory tract infection, like infected tonsils, or constipation. If so, these should be treated and the problem will resolve by itself.
- If you are on medication, check to see whether you are suffering a dry mouth as a side-effect.

What your dentist can do

- Check for the presence of any form of gum disease, and if so treat it, see page 326. Gingivitis can be eliminated by careful tooth-brushing and flossing between the teeth, over a period of weeks or months. More severe forms of gum disease, where pockets of calculus (old, hard stagnated plaque) have developed between the gum and the tooth, may involve dental intervention. The pockets can be cleaned out by the dentist or the hygienist, and in severe cases where bone loss has occurred, but substantial bone still exists, the bones can be remodelled. Once the mouth has been cleaned up, your breath will undoubtedly feel fresher.
- Diagnose AUG – acute ulcerative gingivitis – or trench mouth, (see page 326) which needs urgent treatment with metronidazole, a special form of antibiotic.

Julia's story

Julia was a 36-year-old part-time sales assistant with two children. She had developed halitosis (bad breath) which made her feel extremely self-conscious.

'With hindsight I think my problem started years ago when my two children were small. Our eldest child had open-heart surgery as a toddler and I knew that he would need a further operation when he reached his teens. We had concerns about the little one at school plus my mouth and throat had become dry, which I presumed was

directly related to the anxiety. My husband eventually confirmed my worst fears, that my breath was very smelly, particularly in the two weeks before my period. I had a foul sour taste in my mouth and when I ran my tongue across my teeth I was aware of an equally unpleasant smell.

My first thought at the time was that I must have a dental problem. I was very embarrassed when I consulted my dentist, and extremely dismayed when he could find nothing wrong with my teeth, and only minor inflammation on the gums which I corrected with improved brushing. I read that halitosis can be caused by a number of illnesses, like lung disease and gastric ailments like hiatus hernia. But my doctor confirmed that there was nothing wrong with me in these departments.

I began to wonder if my problem had something to do with the food I was eating, so I made a point of avoiding all the acknowledged obnoxious smelling foods like onions, garlic and blue cheese. I brushed my teeth several times each day, flossed between them, gargled with mouthwash and chewed and sucked fresh-breath sweets and gum. Nothing worked and I became so embarrassed about the problem that I made sure I stood well away from people when I spoke to them. I even got into the habit of covering my mouth with my hand when having a conversation.

I felt very humiliated and self-conscious. I was used to being such a lively and outgoing person, it's hard not to be inhibited when you are trying to keep your mouth firmly shut. Most people are too polite to comment, but I knew they could smell my bad breath, which was so distressing. What didn't make sense was that the smell was worse for two weeks before my period, and seemed to improve after my period had begun. I had been having other premenstrual problems for many years which eventually lead me to the solution to my bad breath.

I read an article in a magazine about premenstrual syndrome, and not dreaming that my breath problem could be connected, I wrote for information. When I received the questionnaire from the WNAS I was stunned to see that bad breath was one of the premenstrual symptoms they asked about. I came to discover that life events and stress can upset the brain chemistry which influences our hormones. It turned out that I had an allergy to wheat, which seemed to cause a chemical reaction in my body, particularly before my period. Once I tidied up my diet and avoided wheat the bad breath cleared up completely. The only problem was that I had cravings for pasties in the two weeks before my period, and each time I indulged I'd feel the bad breath taste welling in my mouth. Once I tuned in to my body I realised that the pasties and other

foods containing wheat affected my gut too. This explained why my breath was worse premenstrually.

It's ten years since I kissed my bad breath goodbye. Occasionally I get the cravings for a pastie, and if I do indulge I feel that old familiar taste return. I managed to overcome the other premenstrual symptoms too and feel totally in control. It's wonderful to be able to smile and chat without having to be self-conscious.'

What you can do

- Follow The Good Oral Hygiene Plan on page 332.
- Omit from your diet any foods that you are aware upset your tummy, and of course avoid the known smelly foods like garlic and onions.
- Use an anti-bacterial mouth wash before brushing your teeth which helps to decrease the plaque levels, and thus reduce the smell.
- Coffee and cigarettes can dry your mouth, so it's best to cut these down, or better still, cut them out altogether.
- Ninety per cent of adults in the UK have gum disease and many suffer with halitosis or bad breath! Unlike toothbrushes and mouthwashes, dental floss can reach the plaque bacteria, decaying food and toxins, hidden beneath the gum line, which cause bad breath, gum disease and can lead to tooth loss. The WNAS recommends Glide floss which should be used daily in conjunction with tooth brushing by anyone who is keen to adopt a thorough, comfortable and effective oral hygiene routine.

See also: Allergies, Constipation, Influenza, recurrent coughs, colds and sore throats, The simple exclusion diet, References and Recommended reading.

Hay Fever and Allergic Rhinitis

Nasal irritation, discharge, sneezing and blockage are all the hallmarks of rhinitis which literally means 'inflammation of the nose'. This can occur at fixed times of the year, being related most frequently to pollens and is known as hay fever. Non-seasonal rhinitis may occur separately, or as well, and is often related to housedust mite allergy, but there are other possible causes. The symptoms of nasal irritation may be accompanied by throat itching, irritation in the ears, conjunctivitis with red watery eyes, and in more severe cases, asthma (see page 89).

The basic mechanism involved is that cells, called mast cells, present in the nose and lungs are stimulated by an allergen (a substance to which the individual is allergic), and subsequently release a variety of powerful

irritating chemicals, including histamine. These chemicals produce the symptoms of rhinitis, and in particular stimulate the production of mucus, possibly in an attempt to 'wash away' the triggering allergen as though it were a serious threat to health. The mast cell contains, on its surface, specific antibodies of a type called IgE that interacts with specific antigens. Other chemicals and cells found in the lining of the nose determine the degree to which the body produces this sensitising IgE antibody.

Who gets it?

Something like 10–15 per cent of the UK population suffer. There appears to have been a substantial rise in consultations for these problems over the last 40 years.

Air pollution, especially in cities, may have led to this rise in prevalence despite, in some situations, a fall in the seasonal pollen count. Pollutants such as sulphur dioxide may damage the lining of the nose. The magnitude of exposure to housedust mite or animals as a youngster may be a determining factor. In occupational allergies, cigarette smoking again seems to increase the chance of developing such allergic reactions.

There is some association with other allergic conditions such as eczema and asthma and there is therefore probably a genetic component in determining who is likely to suffer.

What causes it?

It will be useful to separate seasonal and non-seasonal allergies:

Seasonal allergies

- Tree pollens are present in the spring from early April onward to late May in the UK. Sensitivity is common, and symptoms start at these times before the grass pollen season is underway.
- Grass pollen is abundant from mid-May to early August, with the earlier times being more relevant to the warmer southern areas. Pollen counts rise in warm dry conditions and in the evening, as the air cools, pollen counts at ground level reach a maximum.
- Weed pollens follow grass, and are around from July to September in the UK.
- Sensitivity to mould is again not uncommon. There are many varieties present from June until the autumn. Moulds are Mother Nature's garbagemen, breaking down vegetable matter, and releasing millions of invisible spores. Depending upon the variety, this can occur in either warm summer weather following rain, or after a heavy dew. In the house, damp dark places, especially cellars, attract moulds. In the garden, compost heaps, piles of grass cuttings and the soil are all places where some moulds proliferate.

Non-seasonal allergies

- Housedust mites are the commonest perennial allergen. They are abundant in most homes and live on shed human skin scales, thriving in the warm, moderately moist conditions that are the norm in most centrally-heated modern homes. Carpets, bedding materials and furnishings are the major preferred residences for these common allergens. Dustmite counts tend to peak in the spring and autumn, and their level is greatly influenced by the type of materials found in the home, and cleaning habits.
- Animals, especially domestic pets, are again another common source of allergic material. This is often from the saliva of cats which is passed on to their hair but can also be present in the air and mixed in with housedust. Dog, rabbit, and horse hair as well as feathers are other possibilities. Sensitivity to an animal's urine can also develop in farm and laboratory workers.
- Cockroaches in semi-tropical climes and now some inner-city buildings are again a potential source of allergic rhinitis.
- Occupational exposure to animal products, chemicals, flour, yeast, enzymes in biological washing powders and in flour improvers, and rubber are all possibilities.
- Foods are a possibility though this is an uncertain area. From adult and child experience it would seem that sensitivity to artificial colours, dairy products and oranges are especially likely. Only repeated withdrawal and challenge will determine the issue.
- Sulphur dioxide is worth a special mention. This is a chemical pollutant found in the air, especially in relation to inner cities and industrial areas. Some are particularly sensitive to it as it readily irritates the lining of the nose and lungs. Small amounts of this and related chemicals called sulphites are used as a preservative in foods and beverages (E 220–227). It is a surprisingly common additive in wine, especially cheap acidic white wine and in some this tittle will aggravate symptoms of rhinitis and asthma. Concentrated squashes are another possible source.

What your doctor can do

- Help identify the allergen from your history, from skin prick tests or, occasionally, blood allergy tests.
- Advise about allergen avoidance (see opposite).
- Offer drug treatment with steroid nasal sprays, antihistamine tablets and nasal sprays, and a nasal spray of sodium cromoglycate which blocks the allergen's interaction with IgE and the activation of the mast cell.
- Rarely desensitisation is used for isolated grass-pollen sensitivity.

What you can do

Avoiding the allergen is a central part of treatment for most sufferers:

- It may be difficult to completely avoid seasonal allergens. Staying indoors with windows and doors closed during times of high grass pollen count is for many a thing of the past because of effective drug treatments. For some, going to the seaside and sitting on the beach with an on-shore wind blowing, is a way to reduce one's exposure to pollen.
- If mould sensitivity is a problem, make sure that you are not being exposed to mould in the house. Watch out for damp patches with dark discoloration of wallpaper, and treat such patches with an antifungal paint. If there is a lot of damp, then a builder may need to be consulted. Treat any dry, as well as wet rot, that affects wooden structures. It may be advisable to remove houseplants which encourage mould growth.
- Measures to reduce exposure to housedust mite can be highly effective though this can take two or more months before the full benefit is experienced. The following measures are recommended in approximate order of importance and cost:
 - Use a modern powerful vacuum cleaner with an efficient filtration system once or twice weekly in the bedroom and main living areas.
 - Vacuum the carpets, furniture and the mattress and pillows.
 - Clean sheets and duvet covers weekly on a hot wash.
 - Renew pillows, opting for a synthetic and not feather filling.
 - Use a synthetic filled duvet rather than wool blankets and sheets.
 - Put the pillow and duvet out into bright sunshine on a dry day for several hours each week or month when possible. This helps to kill off dustmites.
 - You can also wash pillows and duvets from time to time. Putting pillows into the freezer for 24 hours and then into a tumble drier for 30 minutes will help curtail the mite's activities.
 - Keep the temperature and humidity in the bedroom low.
 - Minimise the use of soft furnishings, cuddly toys and carpets in the bedroom.
 - Buy a new mattress.
 - Use specialised occlusive corners for the mattress and pillows. This is worth considering if symptoms persist despite simple measures, or if mite sensitivity is a factor in asthma which is severe enough to require regular treatment with substantial amounts of steroids.
- In the case of animal sensitivity, remove the animal from bedrooms and main living areas. Many children with asthma, without obvious animal sensitivity, are well advised not to have cats or dogs as pets in case they develop a sensitivity.

- In the case of exposure to a possible allergen at work, expert advice may be needed, particularly in the case of asthma that is severe enough to affect the quality of life.
- If food sensitivity really is suspected then try The Simple Exclusion Diet on page 460 (*only* with medical supervision if you have asthma).
- Try limiting exposure to sulphites in foods and beverages (this latter will include some beers and many acidic tasting wines).
- Exercise might help! A run or 40 minutes' aerobics is a pretty good way of clearing your nasal passages. Regular exercise over several weeks might reduce the overall degree of sensitivity of the lining of the nose.
- Avoid drugs that might worsen nasal congestion. Sensitivity to aspirin is a not infrequent problem. Be suspicious of this if there are also nasal polyps, a personal history of asthma, or a family history of aspirin intolerance. Paracetamol is usually a safe alternative. Those who are very sensitive may need expert advice, and may benefit from a specialised diet low in fruits, vegetables and other foods containing salicylates.
- Vitamin C, 1g twice daily, has a moderate antihistamine effect. It's simple, cheap and free from side-effects.
- Supplements of vitamin B or multi-vitamins might help. Vitamin B6, pyridoxine, is needed by the body for the breakdown of histamine.
- The bioflavonoid quercetin stabilises the membranes of the histamine-releasing cells which triggers allergic symptoms.

Headaches

The type of headache ranges from a classic migraine to an eyestrain headache, hunger headache to a sinus headache. However, for the purpose of this chapter we are going to examine tension headaches, which are familiar to practically everyone, being the most common human complaint. At least 80 per cent of the population suffer with tension headaches at some point, and they are essentially due to contractions of the muscles of the scalp, neck and face. It is primarily an adult problem, with women affected three times as often as men. About half of those afflicted will have headaches that are severe and disabling, and it is thought that between 10–20 per cent will consult a doctor about their headaches, as a primary symptom. Unlike migraine, which occurs periodically, the tension headache is often a daily occurrence. It usually gets worse as the day goes by, and it is not associated with visual disturbance.

What are the symptoms?

The symptoms of a tension headache usually consist of an aching or squeezing discomfort on both sides of the crown, temples and forehead. The description most often used to illustrate the headaches is 'It feels like a tight band around my head, like a skull cap' or 'as if a clamp or vice was squeezing my head'. Others feel as if their head is about to 'burst or explode', and they stress that there is a feeling of pressure as well as pain.

The neck is often involved, and so too, sometimes are the nose and jaw. The headaches may only last for a few hours, but can last for days, weeks and even months.

What causes them?

Tension headaches are frequently associated with spasm of the muscles of the scalp, neck or shoulders. Anxiety and depression are other emotional associates. A somewhat different view is that of cranial osteopathy which believes that tension headaches often come about because of stress to the fascia, the connective tissue structure under the skin. This can apparently be the result of physical, mental or emotional trauma.

The cause is usually a combination of overwork, stress, lack of exercise or an emotional crisis of some sort which causes the muscles to go into spasm. Whilst headaches may stand alone as a problem, they may also be a manifestation of various general medical diseases, or problems affecting the nervous system or the head. The risk of headaches being due to a serious condition increases after the age of 65 years of age. Other possibilities include bleeding or leakage from blood vessels at the base of the brain, and only very rarely a brain tumour.

What your doctor can do

- Examine you physically, and take a history of the problem, which is important for three reasons: firstly, to eliminate the possibility of the symptoms being anything other than a tension headache; secondly, to locate the source of the headache, such as the neck, which may have been forgotten; and thirdly, to put your mind at rest. Anxiety about an underlying brain haemorrhage or something will only serve to make the headaches worse.
- Once the cause is located, it may be that drugs are unnecessary. However, analgesics, and even sedatives, tranquillisers and other tension-relieving drugs are sometimes used. If drugs are used they should only be limited to short courses.
- Refer you to a neurologist if there is any cause for concern.

What you can do

- Eat a good diet. Follow the recommendations for The Very Nutritious Diet on page 437.
- Avoid excessive amounts of tea, coffee and alcohol.
- Identify any food allergies or sensitivities. Dairy products and caffeine have been implicated in the onset of headaches. However, caution is needed when cutting these foods out of the diet, because withdrawal symptoms can manifest, which can actually worsen headaches and induce feelings of nausea. The best advice is gradually to cut out the offending foods over a period of weeks.
- Avoid foods containing tyramine, which include chocolate, bananas, cheese, citrus fruit, peanut butter, pork, smoked fish, wine and products containing yeast. Tyramine can cause blood pressure to rise, resulting in a dull headache.
- Never miss a meal, as low blood sugar can often precipitate a headache.
- Talk through any problems you face, and aim to get a workable solution underway.
- Learn to manage your time, so that you have time for regular relaxation, (see page 29).
- Try to reorganise yourself so that you can avoid further stressful situations recurring (see page 25).
- Take regular exercise, preferably in the fresh air and sunlight when available, see (page 32).
- Massage your own scalp, forehead, temples and ears regularly, or treat yourself to a regular massage. Use some of the gentler and more relaxing aromatherapy oils like lavender, melissa or geranium.
- Take daily supplements of strong multi-vitamins and minerals, with a strong B complex. Add an extra supplement of magnesium, in the region of 300 mg per day, as magnesium acts as a muscle relaxant. It may take two or three months before it is fully effective.
- When you feel the stress is getting the better of you, try going for a walk or doing some deep breathing.
- Try chewing some ginger, either root or crystallised, as this old remedy can often reverse the process of a headache if caught in time.
- Always seek and treat the cause of the headache, rather than the symptom, as long-term reliance on painkillers can switch off the brain's natural ability to fight the headache.

Complementary therapies

Cranial osteopathy is the first choice of treatment, and may sort out the underlying physical cause of your headaches. Other therapies like herbal medicine, homeopathy and acupuncture all have something to offer.

See also: References.

Heart Failure

At its simplest, it is a failure of the pumping action of the heart. For a variety of reasons the heart may not be able to pump enough blood forwards around through the lungs and around the body. The heart has two sides: the right side pumps blood to the lungs where oxygen is collected and carbon dioxide released; the refreshed blood returns from the lungs to the left side of the heart from whence it is pumped around the body. This requires a greater degree of force and consequently the left side of the heart is bigger than the right side. Blood is prevented from flowing back in the wrong direction by a series of valves and chambers in both sides of the heart.

What are the symptoms?

- shortness of breath, especially with any activity, or at night when lying down
- fatigue
- ankle swelling
- cough
- irregular breathing pattern when asleep
- poor appetite
- sometimes, loss of weight

Who gets it?

The elderly are the largest group at risk, and heart failure is now one of the commonest reasons for admission to hospital throughout the developed world.

What causes it?

Often there is more than one cause. The main ones are:

- high blood pressure
- ischaemic heart disease
- disorders of the heart muscle or the heart valves
- alcoholism
- nutritional deficiencies
- rarely, infectious anaemia

What your doctor can do

- Assess the cause and severity. This often requires specialist referral for blood tests, x-rays, ECG (electro-cardiogram – an electrical heart

tracing) and ultrasound examination of the heart which can look at the function of the heart muscle and valves.

- Treat the failure with diuretics or water pills, digitalis (a very old-fashioned but effective drug derived from foxglove), and drugs that help to open up blood vessels and reduce the pressure under which the heart works. These latter drugs, called ACE Inhibitors, have greatly improved the outlook for many with heart failure and need to be prescribed more frequently. Occasionally treatment with beta blocker drugs.
- Advise about the need for supplements of potassium which may be deficient or in excess as a result of drug treatment.

What you can do

- Rest in bed with your feet up. This helps in the removal of excess fluid in acute episodes of heart failure. It is most useful to do this in the morning after the first dose of any diuretic or water pill.
- Follow The Low-Salt Diet (see page 449) as salt in the diet contributes to a build-up of water in the body and creates more work for the heart to do.
- Limit your intake of fluid to 2.5 litres per day.
- Make sure the diet is adequate in essential nutrients, especially protein, vitamin B, potassium and magnesium.
- Spread meals out during the day, as eating little and often is a good rule for you to follow.
- Limit alcohol to seven units per week.
- Avoid all alcohol. It is actually a poison and damages the heart muscle.
- Take supplements of multi-vitamins and magnesium, with your doctors approval as these may well make a difference if you are not eating very well.
- Weigh yourself regularly, as rapid weight loss or weight gain may signify deterioration in heart function.
- Exercise. Amazingly, very careful graded exercise is appropriate for those with mild to moderate heart failure once any acute episode is over. In fact this can lead to considerable improvement and actually helps correct the underlying weakness of the heart muscle in a way not achieved by drug therapy. Again specialist advice from your doctor is needed.

See also: Standard references.

HIGH BLOOD PRESSURE

The blood in our body circulates around due to the pumping action of the heart which causes the blood leaving the heart in the arteries to be at a

higher pressure than that which is returning to the heart in the veins. When the heart contracts, the pressure rises to reach a peak called the systolic pressure, and between contractions the pressure falls to what is termed the diastolic pressure.

When you have your blood pressure measured, both these levels are recorded and are expressed as the systolic value over the diastolic value. They are measured as millimetres of mercury which are written as 'mm Hg'. Elevation of either can be associated with an increased risk of a stroke and other disorders of the circulation. The clear association of a raised blood pressure with stroke risk, and the now established benefit of reducing blood pressure, means that doctors commonly measure blood pressure during routine examinations and patient visits.

Blood pressure values vary considerably from one person to another and from country to country. Furthermore our own blood pressure shows a substantial variation during the course of the day rising with stress, physical pain, exercise and sexual intercourse. There is usually a modest rise with age in most urban populations and much of this age-related rise has been attributed to the relatively high intakes of sodium salt found in the diet of developed communities.

Definitions of high blood pressure vary. In the USA and now in most other developed countries, many experts accept that if the blood pressure is consistently greater than 140/90 mm Hg, then this is worthy of a diagnosis of hypertension, and more importantly a signal to do something about it. For most adults a rise in either the diastolic or systolic readings above these values is associated with an increased risk of premature death. Values up to 159/99 are considered to be mild hypertension and may be improved by non-drug approaches. Hypertension with blood pressure values above 160/100 almost always needs drug treatment and, especially if there is evidence of damage to blood vessels, the kidney or heart. If not tackled vigorously, it is associated with greatly increased risk of early death usually from a stroke, kidney damage or a heart attack. The risk of all three rises as blood pressure rises, and there is also an increase in the furring up of arteries in the legs which leads to peripheral vascular disease. These conditions are dealt with elsewhere in this book. The optimal goal of treatment particularly in young people and diabetics is to lower systolic pressure to 140 or less and diastolic to 85 or less.

The mechanisms behind these diseases are damage to the walls of the arteries that are subjected to this increase in pressure. The artery wall becomes thickened, the lining damaged and more prone to the deposition of cholesterol, particularly if the blood level is elevated. The risk of blood pressure to health is thus greatly magnified if the person is overweight, smokes cigarettes, drinks excessively, has an elevated blood cholesterol, or eats a diet low in fresh fruit and vegetables.

The symptoms of a high blood pressure are few and far between. Usually with a mildly elevated pressure there are none, and the diagnosis is made by chance at routine examination. Headaches, giddiness, recurrent nose bleeds, a sensation of fullness in the head are all possible symptoms, but equally have many other causes. Dangerously high blood pressure can cause these as well as visual disturbance, symptoms relating to nerve damage, and even epilepsy or loss of consciousness. Symptoms relating to another condition causing the high blood pressure may also be present.

Who gets it?

The prevalence of high blood pressure obviously depends on the criteria set for its diagnosis. In the USA 33 per cent of white men and 38 per cent of black men in the age range eighteen to 74 years have a blood pressure above 140/90. The rise in systolic blood pressure with age means that the risk of high blood pressure is greater in the older population. Generally high blood pressure is more common in women compared with men, mainly from the age of 50 onward. In the UK the rates of high blood pressure in whites, Asians and blacks are similar. Urban populations tend to have higher pressures than those from rural communities. If Australian aborigines return from an urban to a rural existence there can be a substantial fall in blood pressure as well as reduction in other heart disease risk factors such as obesity and altered blood-fat levels. Reductions in salt and alcohol intake are top of the list of necessary changes.

What causes it?

The causes of high blood pressure have been one of the most hotly contested topics for the last 30 years. There are usually many minor contributing factors which produce a noticeable effect. This has important implications for treatment. Causes can be divided into three main categories:

- genetic
- environmental (e.g. diet)
- disease (e.g. hormonal disorders).

Genetic factors

These would seem to account for about 30 per cent of the variation in blood pressure, and are less important than environmental factors. The genetic mechanism may involve other factors such as weight, hormonal changes and a propensity to retain sodium. The effect of these is in turn capable of being reversed by appropriate dietary changes.

Environmental factors

There are many environmental factors considered on page 239 under the section 'What You Can Do', which interact with each other, and there is potentially substantial benefit in addressing most of them in every person with high blood pressure.

Two environmental factors that should be mentioned at this point are the effect of oestrogen and environmental poisons.

- The oral contraceptive pill and hormone replacement therapy (HRT) can cause a rise in blood pressure in a small percentage of users. This is in the region of 1–2 per cent of users only, but necessitates the doctor to monitor blood pressure levels when prescribing these or similar hormonal treatments.
- Steroid drugs and occasionally other medicines cause an elevation of blood pressure and require an alteration of the dose or change of treatment.
- Rarely, a raised blood pressure is due to past exposure to lead or possibly cadmium. These are two toxic minerals that can damage the kidneys and as a consequence cause high blood pressure as well as other health problems. A history of working with these minerals, no matter how long before should make one suspicious.

Disease factors

These are relevant to probably less than 10 per cent of newly diagnosed patients, and are for the most part outside the scope of this book. Brief details only will be given about these possible causes. Blood pressure can be raised in a wide variety of conditions including:

- kidney disease
- an underactive or overactive thyroid gland
- excessive production of adrenaline, cortisone and related substances
- structural abnormalities of the main artery leaving the heart, and occasionally a metabolic disorder.

Many of these conditions are rare but their importance is that their management may be very different from 'ordinary' high blood pressure and in some instances a cure can be genuinely achieved. Such conditions should be suspected if:

- there is a very high blood pressure, especially if it is not easily controlled by standard means.
- there is a family history of these rare causes or hormonal disorders.
- there is a personal history of kidney or urinary problems.
- there are persistent or severe headaches, palpitations or sweating and in all young people with a very high blood pressure.

Careful physical examination, blood tests, urine tests and a chest x-ray will detect the majority of them, and consequently all patients with high blood pressure should be carefully assessed by their doctor before beginning treatment.

What your doctor can do

- Assess your blood pressure by measuring it on three separate occasions. You should be sitting or lying down, relaxed and with no restrictive clothing on the upper part of the arm.
- Assess any possible damage that may have developed as a result of an elevated blood pressure. Enlargement and weakening of the heart, damage to the kidneys and changes to the blood vessels at the back of the eye are all possible, though now much less common due to the benefits of good treatment.
- Assess the possible causes, especially the presence of underlying medical conditions even if they are rare. The nature of any associated symptoms, examination, and results of simple blood and urine tests usually serve as a guide to these possibilities.
- Assess associated risk factors. An elevated blood pressure by itself may have relatively little health implication for the individual. Add one or more of the following and that can change dramatically: high alcohol intake, cigarette smoking, obesity, an elevated blood cholesterol, a poor diet and lack of exercise. These should all be discussed as appropriate by your doctor and the necessary advice given.
- Treat your blood pressure with drugs. There are many different types of drugs, and within each type of drug a variety to choose from. Commonly used drug types are:
 - *Diuretics* Now usually given as a very low dose, and are very useful in the elderly. They have the added bonus of possibly reducing calcium losses from the skeleton.
 - *Beta-Blockers* These act by blocking the action of adrenaline. They are more suited to young and middle-aged patients, especially if they suffer from coronary artery disease.
 - *Calcium antagonists* This family of drugs is useful for those with coronary artery disease. Some may cause ankle swelling as a side effect.
 - *Angiotensin Converting Enzyme Inhibitors* These act by counter-acting one of the hormonal mechanisms that underlie high blood pressure. They are particularly suited to those who have a weakened heart, and diabetics. Chronic dry cough is a common side-effect.
 - *Alpha-Blockers* Another type of drug that also acts against adrenaline. It may be particularly suited to blacks and diabetics.

- Monitor your progress, which is vital. Regular frequent checks at the start of therapy are needed, and when control is achieved these can reduce to once- or twice-yearly checks. Those with a very high blood pressure, heart disease or diabetes will need more careful monitoring with regular urine and occasional blood tests and x-rays.

What you can do

Once upon a time there was nothing for the patient to do except to have faith in their doctor and the treatment. That has changed. In fact it is probably fair to say that today the patient's efforts are considered as important as the doctor's. You can choose whether or not to address the environmental factors that so often play a part in high blood pressure, and the doctor should direct you to the most important areas to address, and work out how to combine them with appropriate drug therapy.

To explain it all a little further, there are a collection of factors relating to our day-to-day existence that determine our blood pressure. These probably interact with any genetic predisposition for the blood pressure to rise.

For example, blood pressure levels, both systolic and diastolic, rise with age in virtually all communities around the world. The rise is quite substantial in some, but does not develop in those communities where there is a very low intake of salt. It seems likely that this environmental factor, salt intake over many years, will influence blood pressure, especially in those who are predisposed to respond this way.

Another important factor is the age of the person, and how long these environmental factors have been at play. Initially blood pressure readings may fluctuate considerably with high levels being recorded intermittently. This is termed 'labile hypertension'. Eventually this usually leads to an established raised blood pressure, though it may take many years. If you set about tackling some of the environmental factors in the early stages it is likely that you will achieve substantial results, whereas in an older person with persistently elevated blood pressure, drug treatment is more likely to be needed in order to achieve satisfactory control.

The British Hypertension Society issued guidelines in the year 2000 that all hypertensive and borderline hypotensive should be advised about self-help non-drug approaches. The most important areas that may need to be tackled, and can be tackled by you, are:

- *Weight* Obesity is a major determinant of blood pressure, which also influences blood cholesterol, heart disease and stroke risk. Weight reduction is often all that is needed to control mildly elevated blood pressure that is newly found in an overweight person. Follow The Simple Weight-Loss Diet (see page 452).

- *Alcohol* Consuming anything other than very modest amounts of alcohol can raise blood pressure. This can happen temporarily the day after an evening's socialising, but in regular heavy drinkers the elevation in blood pressure can be very substantial. In one study of young heavy-drinking Australian men, the drop in blood pressure after several week's abstinence was better than the improvement achieved by use of standard drug therapy. Modest consumption of alcohol may protect against heart disease, so a reasonably conservative guide for those with a raised blood pressure would be seven units per week for women and ten for men which is half the safe amount recommended by The British Hypertension Society.
- *Salt* As we have already mentioned, salt seems to be an important determinant of a community's blood pressure. For individuals, modest salt restriction, reducing sodium intake from the current average of around 150 millimols per day to half this value, can produce a small fall in blood pressure of usually no more than five to ten points in either systolic or diastolic. Very severe salt restriction can be more effective, but such diets are very difficult to follow in the long term. It is rare that this measure alone is enough to control raised blood pressure. However it would seem unwise not to advise those with an elevated blood pressure to not make some restriction of their salt intake. See The Low-Salt Diet on page 449.

These three factors are the most important and should really be considered by all those with established or labile hypertension. The remaining factors are worth considering, particularly as they may be relatively easily corrected by making simple dietary changes and because these same changes may bring other important health benefits.

- *Potassium* Increasing the balance of this mineral, which broadly speaking is the antagonist of sodium, also helps to lower blood pressure. The effect is small and it is no longer considered advisable to use supplements of potassium too freely as they can easily cause stomach irritation. A high dietary intake of fresh fruit and vegetables which are the main sources of this mineral will normally suffice. This is sound advice for almost all of us, as high fruit intakes are associated with a reduced risk of having a stroke. The British Hypertension Society recommend a total of seven portions of fruit and vegetables daily.
- *Magnesium* The sister of potassium. Poor or barely adequate intakes are common certainly in adults in the UK, and losses can also occur as a side-effect of some diuretics (water pills) used in the treatment of high blood pressure. One Scandinavian study showed that supplements can help lower blood pressure levels slightly in women but not all similar studies have shown this small effect. Magnesium supplements can help

improve the balance of potassium. Consider trying a daily supplement of 200–300 mg. It should not be taken without medical advice by those with kidney problems.

- *Calcium* The big brother of magnesium, at least so far as the bones are concerned. It too may have an effect of mildly lowering blood pressure. This is small and of uncertain value until the results of further current trials are published. To its advantage it is simple, cheap and safe, and of course mostly worth considering for older people who may also need to minimise their risk of developing osteoporosis. An effective dose is not clear, but probably between 500 and 1000 mg per day.
- *Fats and oils* Cutting down on saturated fats, which come mainly from animal sources, and increasing the intake of polyunsaturates, can also help lower blood pressure slightly. There does seem to be some particular effect by fish oils, particularly the Omega-3 essential fatty acids.
- *Avoiding liquorice* The black chewy sweetmeat of our childhood, prepared from the root of a Mediterranean and Asian plant, has one interesting side effect: it encourages the retention of salt by the body which can lead to a rise in blood pressure, so avoid it.
- *Exercise* There are many reasons for doing it, and yes, you can add controlling high blood pressure to the list. Experts recommend a daily jog or brisk walk or any other pleasurable and easy-to-do regular exercise of your choice. Some 40 minutes three times per week is a good goal. The British Hypertension Society recommend walking briskly for 20 minutes each day. Exercise lowers blood cholesterol and is also associated with lowered risk of heart disease, stroke and osteoporosis. So what are you waiting for!
- *Stress avoidance* This is now broadly accepted as being effective. Relaxation exercises and even meditation have been successful in controlling blood pressure. Do it the simple cheap way and fit it in with your lifestyle and daily schedule. Try relaxing very fully at home (see page 29 and page 242).

Finally for those who have followed the self-help advice carefully and achieved a normal blood pressure your doctor could then reduce or even stop your daily treatment. In one British study 22 per cent of well controlled hypertensives were able to remain off medication but they should all be followed up regularly.

Everyone with high blood pressure should be careful about their weight, should not drink excessively, should limit salt intake and follow the general recommendations for The Very Nutritious Diet (see page 437) with an emphasis on a good daily intake of fresh fruit and vegetables and exercise. There is a great deal you can do to influence your blood pressure.

Complementary therapies

Relaxation therapies, acupuncture and herbalism are all possibilities to be considered. Whichever of these you choose, make sure that your blood pressure is monitored by your medical adviser. Alternatively you can, with his approval, buy a blood pressure machine called a sphygmomanometer and record it yourself at home. If you want to do this then you should keep a careful record of the readings you obtain and check these results with your doctor who should oversee the whole activity. A very high blood pressure is a danger and the consequences of it remaining untreated or under-treated are substantial.

Kathy's story

The reason Mrs Hadley wanted to see us was because of her long standing rheumatoid arthritis which had begun 30 years ago and had required her to take low dose steroids for the last ten years. Weight gain had become inevitable and had probably contributed to the recent deteriorations in her arthritis. However, this did not prove her main problem.

She was overweight at 83 kilos (13 stone) and many joints, especially those of her hands and knees, had been severely damaged by the arthritis. Her blood pressure was very high, recorded at 250/140, and her weight was increased to 84.5 kilos (13 stone 6 pounds). There were changes in the blood vessels at the back of her eye indicating that this elevation in blood pressure was not just a one-off. Routine blood and urine tests were fortunately satisfactory.

She was immediately put on a weight-reducing low-salt diet together with a beta-blocking drug. Within two weeks her weight was down to 81.75 kilos and her blood pressure had fallen to 185/104. The headaches that she had barely mentioned at her first appointment had cleared up and she felt a lot better in herself.

Over the next three months her weight finally came down to 80 kilos and blood pressure 160/100. She was eventually prescribed a lower dose beta blocker with a small amount of diuretic, continued to follow her reduced calorie, low-salt diet and took supplements of calcium and magnesium together with multi-vitamins. If left untreated, this very high blood pressure would almost certainly have brought substantial consequences.

See also: Standard references.

Hysterectomy

The term 'hysterectomy' originates from the Greek words *hystera* meaning uterus, and *ektome*, meaning to cut out. The earliest hysterectomies on record were performed 1,600 years ago in Greece, and despite the high death rate, this method of treatment continued. The procedure involves the removal of all or part of the female reproductive organs. When the ovaries are removed (oophorectomy) as well as the uterus, the procedure is referred to as a full or radical hysterectomy, and when the uterus alone is removed, it is known as a partial hysterectomy.

It is one of the most common operations performed on women these days, surpassed only by caesarian section. It is offered, mainly for the control of heavy bleeding, to 50 per cent of women in the USA, 22–34 per cent of Australian women, and 20–25 per cent of women in Britain. Despite these large percentages, there are many unanswered questions about how appropriate it is to perform a full or radical hysterectomy on many of the chosen women, and the effects that this operation then has on long-term health and life expectancy.

Although there are times when a hysterectomy may be a life-saver, as in the case of uterine or ovarian cancer, in our experience there is substantial evidence that it is often performed unnecessarily, without giving the patient sufficient information to make an informed decision. In the case of heavy bleeding, where the ovaries are healthy and there is no history of ovarian cancer in the family, it may not be necessary to remove the ovaries as well as the uterus. A full or radical hysterectomy will prematurely rob you of your supply of oestrogen, which plays a key role in keeping your body youthful (see Menopause on page 298). And yet, many uneducated women are told that it is better to have the ovaries removed at the time of surgery in order to avoid further trouble later. Let us now test this premise.

Apart from obvious fertility, some women associate their uterus with femininity, and feel that its presence makes them more sexually appealing to their partner. This may be particularly relevant in societies where the ability to reproduce is a highly respected function. At the WNAS we have encountered numerous patients who went into hospital believing that they were having relatively minor surgery, and woke up to find that they had lost both their uterus and their ovaries. Surely we are all entitled to fully informed consent, no matter what the operation. In the case of a radical hysterectomy, the consequences may be great, and it is impossible to turn back the clock. All too often we hear of gynaecologists who suggest a radical hysterectomy after childbirth, assuming that as no further children are desired there is little point in retaining the reproductive organs. This is still occasionally recommended for the treatment of PMS, which is totally unacceptable.

The advantages of hysterectomy

- no more periods
- an end to heavy bleeding and period pain
- no further risk of pregnancy
- no need to use contraception
- elimination of the threat of cancer of any of the reproductive organs
- no further need for cervical smears
- no more gynaecological operations needed

The disadvantages of hysterectomy

- an earlier menopause, with increased risks of the bone-thinning disease osteoporosis, and heart disease. The risks of this latter are reduced by taking HRT, but not all women will tolerate this
- little further protection by oestrogen from ageing
- surgery and an anaesthetic required
- possible complications, either at the time of the operation or afterwards
- time needed to convalesce after the operation
- help needed at home during the recovery period
- the prospect of needing to take HRT in the long term, without first demonstrating that it suits you
- lack of fertility
- possible reduced sexual satisfaction for you or your partner, and less comfortable sex (the vaginal tissues dry as a result of the falling levels of oestrogen)

The reasons for an hysterectomy

The most common reasons for performing an hysterectomy are heavy periods or fibroids (lumps of fibrous tissue that grow inside the uterus).

- *Heavy bleeding* When periods become heavy, especially if there is flooding or associated anaemia, your doctor may suggest hormone therapy treatment with tranexamic acid, which affects blood clotting, or an hysterectomy.
- *Fibroids* Usually, with careful surgery, these can be removed, and the uterus left intact.
- *Prolapse* Where the uterus has dropped down in the pelvic cavity, but this can usually be repaired.
- *Endometriosis* Where the lining of the uterus grows outside the uterus, around other organs. This can often be improved by non-surgical means (see page 363).
- *Pelvic Inflammatory Disease* This includes all manner of infections and pelvic pain, which should be treated with drugs, antibiotics and natural means (see page 366), with an hysterectomy being the last resort.

- *Cancer* It goes without saying that a hysterectomy should be performed quickly in any life-threatening situation. Cancer of the uterus, ovaries and cervix are major killers, which means there is no room for hesitation.

A study performed by the Australian Institute of Health and Welfare of the estimated 30,000 hysterectomies performed in Australia each year demonstrated that:

- fibroids accounted for 22 per cent of the hysterectomies
- heavy menstrual bleeding for 18 per cent
- prolapse 7–21 per cent, depending on the type of hospital and State
- endometriosis and adenomyosis (endometriosis growing within the thick wall of the uterus) 6–23 per cent
- cancer 1–12 per cent
- pelvic inflammatory disease 2–8 per cent, with a number of other reasons given for the remaining hysterectomies.

Types of hysterectomy

- *Total hysterectomy* The removal of the uterus, the cervix and the supporting ligaments, leaving the fallopian tubes and ovaries intact.
- *Partial hysterectomy* The removal of the upper two-thirds of the uterus only, leaving everything else intact.
- *Total hysterectomy with salpingo-oophorectomy* The removal of the uterus with the cervix and supporting ligaments, together with one or both sets of ovaries and fallopian tubes.
- *Radical hysterectomy* The removal of the uterus, cervix, supporting ligaments, both ovaries and fallopian tubes, as well as lymph nodes in the area, and the upper portion of the vagina. In women with cancer that may have infiltrated other areas, there may be little choice but to choose this option. For others there may be some flexibility.

Surgical alternatives to hysterectomy

Various techniques have been developed in the last few years to destroy the endometrium, the lining of the uterus, rather than removing the uterus itself. These methods, in principle, are usually performed through the vagina, possibly under local anaesthetic. They are far less invasive and traumatic, and the recovery time is a fraction of that for a hysterectomy. They are useful tools for women who suffer heavy bleeding that is resistant to drug therapy, or where there are side-effects to the drugs, and for women who are intolerant to general anaesthetic, or for whom anaesthetic may be life threatening (the obese, for example). However, they are not thought to be so suitable for women with large fibroids, endometriosis or a retroverted uterus (tilted backwards).

The methods use lasers, an electrically heated rollerball, and more recently a thermal technique, which involves passing hot water through the uterus, and are collectively known as 'endometrial ablation and resection'. We already know that they are not risk-free procedures, but the risks seem to be lower than for hysterectomy. They can cause infection, bleeding, damage to other organs, vessels or fluid overload. The worst scenario is that two women in every 10,000 die as a result of these procedures, compared with between two to six women out of every 10,000 that have a hysterectomy.

It is acknowledged that doctors performing these techniques need to be experienced, previously performing between ten and 80 operations, so as not to cause damage or perforate the uterus itself. Having said that, there are many satisfied customers. Periods may continue after surgery, but they are usually light. The stay in hospital is likely to be only one night, and women are often back at work within two weeks. Those with fibroids may need the procedure repeated in the future, and some even resort to an hysterectomy eventually.

What your doctor and consultant can do

- Give you an honest appraisal of what is physically wrong with you. So if you have fibroids, for example, you want to know how large they are and whether they could be removed without taking the uterus with them. It is possible to remove very large fibroids with skilled surgery, leaving the uterus intact.
- Give you a rundown of the treatment options available, before considering an hysterectomy.
- Assure you that, if the removal of your uterus seems necessary, the ovaries will remain, unless they are diseased. Leaving even part of an ovary puts you at an advantage.
- Have a respectful attitude towards your reproductive organs.

What you can do

- Read widely on the subject of hysterectomy (see Recommended reading on page 490).
- Take your time making a decision, and discuss the pros and cons with your partner.
- Follow the recommendations relating to your problem in this book for three or four months to see whether there is any improvement before agreeing to surgery.
- If you do have surgery, and cancer has not been diagnosed, explore the alternatives to hysterectomy with your surgeon, and put your views and requests relating to your ovaries in writing to the consultant before the operation.

Complementary therapies

Many of the complementary therapies have a great deal to offer in helping with period problems. Herbal therapy would be top of our list. Vitex agnus castus has been shown in one early study to reduce heavy bleeding in 60 per cent of the patients included. There are other herbs and homeopathic remedies that may be useful, and acupuncture is worth a try. Follow the recommendations for your specific problem by referring to the appropriate chapter.

Indigestion

One of the main functions of the stomach is to produce acid of a strength great enough to dissolve metal! Dangerous stuff, but only if not confined to a healthy stomach. Leading into the stomach is the oesophagus which carries swallowed food from the mouth down through the chest, pierces the diaphragm and, via a muscular valve-like mechanism, joins the top of the stomach. This muscular valve is intended to keep the contents of the stomach in the stomach and prevent them from washing back up into the oesophagus. But if this happens, this acid reflux (as it is known) will irritate the delicate lining of the oesophagus, causing pain and spasm. It can even trigger chest problems and asthma (see page 93).

A common factor with indigestion in middle-aged and older people is a hiatus hernia. This is when a small portion of the stomach passes up through the diaphragm. The protective valve-like mechanism is lost, and indigestion results.

What are the symptoms?

Typical symptoms include burning discomfort at the top of the abdomen and the lower part of the chest, which is often worse shortly after eating if bending or lying down. There may also be a desire to belch wind and a loss of appetite when it becomes difficult to swallow. It raises the possibility of scarring of the lower end of the oesophagus as a result of long-standing acid reflux, or even of a cancerous growth causing a partial blockage.

What causes it?

There are a number of factors that can lead to acid reflux with or without a hiatus hernia. They all have the potential to relax the muscular valve mechanism, stimulate an excessive amount of acid from the stomach or damage the protective covering of mucus that lines the lower end of the oesophagus. They include:

- smoking
- alcohol
- being overweight
- tea and coffee
- fatty foods
- possibly other foods to which there is an intolerance.
- stress

What your doctor can do

- Assess the severity of your symptoms.
- Investigate those with swallowing difficulties or who fail to respond to drug treatment.
- Prescribe one of three types of medicines:
 - Alkaline medicines based on magnesium or aluminium to neutralise the acid. These are suitable for mild symptoms.
 - Drugs that stop acid production. These can be very effective, especially Losec.
 - Drugs to help the muscles of the stomach to pass its contents out of the stomach.
- Rarely refer patients for surgical correction of a hiatus hernia. This once common operation is now hardly needed as drug therapy has become so effective.

What you can do

- Stop smoking. Tobacco increases stomach acidity and releases the muscular valve at the lower end of the oesophagus.
- Lose weight.
- Eat slowly. Chew your food well too.
- Avoid very fatty foods. Follow the recommendations for The Very Nutritious Diet (see page 437).
- Don't eat late at night. If you do, when you go to bed your stomach will still contain a significant amount of food and acid when you are lying down in bed.
- Prop the head of your bed up. Place books under the top legs. A pair of telephone directories will do the job nicely. This reduces the flow of acids upwards from the stomach.
- Avoid spicy food. This may be best, although, despite its reputation it only rarely causes problems.
- Reduce tea and coffee consumption. Use alternatives (see page 6).
- Peppermint tea has been traditionally consumed after a rich meal or to treat heartburn.
- Ginger in the form of tea, root or crystallised, is a natural carminative traditionally used to treat morning sickness, nausea, motion sickness and indigestion.
- Avoid foods that commonly cause digestive problems. These include

wheat, especially in wholemeal bread, bran, and wholegrain breakfast cereals, eggs, dairy products, citrus fruit and foods containing yeast. You could try The Simple Exclusion Diet (see page 460) if all else fails.

Complementary therapies

Acupuncture, homeopathy and herbalism may all have something to offer.

Ingrid's story

Ingrid was a 53-year-old licensee who had two grown up children. At the time she began taking HRT, to address her menopause symptoms, she developed a mystery gum disease and rather severe gastritis.

'I hadn't had any problems with my gums or my digestion before I started taking HRT and for the first two and a half years didn't link the two. My gum problems came on gradually and eventually became extremely painful. They felt very irritated, almost as if the gums were too big for the spaces between my teeth and no matter how much I cleaned them or rinsed them with mouthwash the symptoms persisted. The gastric reflux also began about the time I started taking HRT but my doctor insisted that neither of these conditions were related to the medication.

I eventually went off to see my dentist who said there was nothing wrong with my teeth. I simply had gingivitis, inflammation of the gums. He gave me a series of mouthwashes and dental paste to use which masked the problem for a while but did not seem to get to the root cause. I saw the dental hygienist every two months. She agreed there was a problem but also could not put her finger on what was causing the problem. I felt so miserable, in constant pain, it really wore me down.

I read about the natural approach to the menopause in the Daily Express and did not waste any time contacting the WNAS for some help and advice. I felt certain inside that the HRT was not really helping my gums, plus I was still experiencing menopausal symptoms despite taking it.

The WNAS programme involved making dietary changes and taking supplements aimed at helping my menopausal symptoms, plus also extra vitamin C to help with my gums. During the first month I noticed that the gum problem was easing and that the reflux was calming down. Before I could not eat a meal without feeling bloated, nauseous and experiencing heartburn. The worst side effect of the reflux was breathlessness where I felt I could not fill my lungs easily and panicked. My doctor's explanation was that

the acid from the gastric reflux was tipping into my lungs. However, it got to the point where I was vomiting after eating and drinking which made me feel awful and obviously restricted my social life.

Now, six months later, I am happy to report that my gums are healthy, the gastric reflux has gone and I don't experience any sickness or even feel sick after eating or drinking. I can almost eat everything. Occasionally I get an acid feeling after overdoing it but that really is rare now. I feel so much happier and the quality of my life has improved beyond belief. I'm grateful for every symptom-free day.'

Infertility

Although many women manage to conceive without any difficulty, approximately one in six couples experience problems. There are many underlying causes, which include the woman's age, the man's sperm count, and an assortment of other factors. About one in ten couples take more than a year to conceive, and one in 20 take more than two years.

There is no need to rush to be investigated if you are under 35, unless you have been trying to conceive for over two years. If you are over 35, having had regular sexual intercourse for a year, and experiencing a disturbed menstrual cycle, it would be acceptable to be investigated without further delay.

Infertility is best regarded as a problem of the couple, rather than the individual, and nutritional causes will often overlap, resulting in self-help measures being much the same for both. To fully understand the causes, it is best to separate them into female and male.

Causes of female infertility

By the time a woman is born, all the eggs that her ovaries will hold have already been produced! Several million eggs are in place initially, but only about 400 of them will reach maturity. The supply is influenced by smoking, even before birth, and daughters of women who smoked during pregnancy have fewer eggs, have more difficulty conceiving, and may reach the menopause earlier than the offspring of non-smokers.

The monthly release of an egg from the ovary is known as ovulation, and occurs at approximately mid-cycle with menstruation coming fourteen days later. Ovulation does not always occur with every cycle, but when an egg is released from the ovary it is picked up by the finger-shaped projections at the end of the fallopian tubes and then passes along towards the womb.

Failure of ovulation

A guide to whether or not an egg is being produced each month is whether the periods are regular, between twenty-five and thirty-five days. Ovulation can be checked for by measuring the blood level of the female sex hormone progesterone seven days before the next period is due. Usually this is day 21 of a 28 day cycle, but can be day twenty-eight in a 35 day cycle.

A rise in early morning body temperature of 0.5°C should also be observed in the few days after ovulation, but this is less reliable than measuring the progesterone level. Often day 21 progesterone level is checked in two or three cycles in couples with fertility problems, especially if there is some uncertainty about ovulation.

Failing to ovulate can be due to:

- Hormonal problems, including an early menopause.
- An under- or over-active thyroid gland.
- Disturbance of the pituitary gland, especially an excess of the hormone prolactin in the blood, can inhibit ovulation. Often the first clues that this is the case are the presence of a milky white discharge from the nipples, known as galactorrhoea, and infrequent periods. However, only one-quarter of those with galactorrhoea will have a high prolactin level, and this then requires further investigation.
- Nutritional deficiencies. Even changing your diet can affect ovulation. Following a 1,000 calorie weight-loss diet for six weeks may suppress normal ovulation. The World Health Organisation survey of infertility found that recent weight loss or gain was a mild risk factor for infertility.
- Any chronic illness, especially if there is weight loss.
- Stress, which can be a powerful factor.
- Excessive physical activity and an inadequate calorie intake, resulting in loss of weight, can prevent ovulation taking place each month. When the body is not well nourished perhaps this is Mother Nature's way of preventing a pregnancy.

Blockage of the fallopian tubes

This is very often due to past infection, most commonly by an organism called chlamydia. It is usually acquired following sexual intercourse, particularly in those who have had multiple partners, and causes lower abdominal or pelvic pain, a vaginal discharge, painful periods and sometimes a fever.

The reporting of infection with chlamydia more than doubled in the UK between 1976 and 1986, and damage to fallopian tubes is now the commonest cause of infertility in many developing countries because of the high prevalence of pelvic inflammatory disease (PID), an acute illness which requires treatment with antibiotics (see page 366).

To confirm the diagnosis a more detailed assessment by laparoscopy, examination of the pelvic organs with a telescopic instrument passed into the abdominal cavity, and x-rays of the fallopian tubes may be performed. Blocked or damaged tubes can be corrected by surgery, but assisted fertilisation is often the simplest way to achieving pregnancy.

Endometriosis

This condition, in which the cells from the lining of the womb grow outside the uterus, such as around the ovaries or adjacent to the outer walls of the womb, can cause infertility. Difficulty conceiving, very painful periods and abdominal distension are common problems of endometriosis. Diagnosis is often made after investigative surgery, a laparoscopy, to examine the pelvic organs. Unfortunately treatment is not very successful.

Polycystic Ovarian Disease

Up to 20 per cent of the normal female population suffer with cysts on the ovaries which cause a shift in the balance of sex hormones resulting in:

- irregular and infrequent periods
- excessive hair growth
- reduced fertility
- often, but not always, obesity.

Contraception

Users of the oral contraceptive pill may experience delayed fertility, as it sometimes takes several months to re-establish a normal menstrual cycle after being on the pill. Users of intra-uterine devices have a slight increased risk of PID (pelvic inflammatory disease) resulting in reduced fertility.

Abortion

A history of abortion does not seem to reduce the future chance of conceiving, according to recent research.

Medical drugs

Many drugs can interfere with a woman's fertility. This is almost always reversible and can follow use of:

- anti-cancer agents.
- hormone preparations, as may be used to treat period pains or premenstrual problems.
- drugs such as used in the treatment of schizophrenia and depression.
- drugs such as metoclopramide and domperidone used in the treatment of nausea.

- the drugs reserpine and methyldopa used in the treatment of high blood pressure, all of which can increase the level of the pituitary hormone prolactin.

Medical conditions

Diabetes and thyroid disease can cause infertility in women, but only if they are not well controlled.

Social poisons

Many, though not all, studies show slightly reduced fertility rates in those women who drink or smoke. Coffee consumption has also been studied, and there is a possible slight adverse effect on fertility. The same may be true of the consumption of soft drinks that have a high sugar content and contain colourings and additives. There are many other possible explanations as those consuming these social substances often have a poorer nutrient intake.

Recreational drugs, including marijuana, may reduce the chances of fertility, and are likely to have a substantial effect on pregnancy outcome.

Exposure to environmental chemicals

This has been shown in studies, especially in the work-place, to reduce fertility. Those who work with textile and leather dyes, lead, mercury, benzene, petroleum and related chemicals, and possibly other chemicals used in the plastics industry, are most likely to be at risk. Additionally, female dentists, anaesthetists and assistants, have been reported as having delayed conception, possibly due to their exposure to the anaesthetic gas, nitrous oxide.

Nutritional deficiencies

It is widely accepted that in developing countries a significant degree of malnutrition, resulting in severe weight loss, is likely to stop women menstruating and could result in her being infertile. Surprisingly little work has been done however to determine whether *mild* nutritional deficiencies contribute to infertility in women from developed countries. Several small reports have documented the association of deficiencies of iron (without anaemia), vitamin B12 and vitamin B3 being associated with reduced fertility.

Other causes

In rare cases, infertility may be associated with:

- structural deformities of the uterus or vagina which may be a barrier to fertility, or prevent successful implantation of the fertilised ovum.
- genetic problems which cause some women to fail to menstruate at all.

- antibodies to sperm or allergic reactions to it! Some women suffer from these, but treatment with assisted conception can get round this problem.

Despite careful assessment of both partners, no cause for infertility is found in some 20 per cent of couples. If spontaneous pregnancy has not occurred within three years, then some form of treatment is deemed appropriate.

What your doctor can do

This depends on the discovered cause of infertility.

- He could treat failure of ovulation either by correcting any underlying hormonal abnormality, or by inducing ovulation through short courses of agents that encourage the ovary to release an egg. These measures might be aided by attention to diet and lifestyle which we will come to shortly.
- He could arrange for Tubal Disease – blocked or damage to the fallopian tubes – to be treated by surgery to repair the damaged tube(s), or by assisted conception. Tubal repair surgery is actually not very effective as it is difficult to repair damage to the delicate tube lining, but it is useful for reversal of sterilisation procedures. Newer specialised techniques – trying to remove scar tissue from inside the fallopian tube by passing an ultrafine tube via the uterus – may be more successful.
- He could also advise you on Assisted Reproduction Techniques (ART). Women with unexplained infertility of more than three years' duration, and those with ovulation problems that have not responded to more simple measures, may be advised to choose this method. It can also help where the male partner has very few sperm or when the woman has no eggs and is willing to use donated eggs.

These techniques involve collection of a woman's eggs, often after treatment with hormonal agents, collection of sperm and their careful preparation. This is followed by either *in-vitro* fertilisation (IVF) or test-tube fertilisation with placement of the embryo in the womb, or placement of both the prepared eggs and sperm in the fallopian tubes (gamete intrafallopian transfer or GIFT), or some of the newer techniques being piloted. In some circumstances it may be appropriate to use donor eggs from (usually) younger women together with the partner's sperm.

Causes of male infertility

Sperm are produced in the testes by specialised cells, and slowly mature over four months. During orgasm they are ejected from the part of the

testis called the seminiferous tubules, mix with fluid from the prostate gland and other tissues, and are released into the outside world. Millions are produced, even though only one is required to fertilise an egg. The number and quality of sperm as well as the health of the prostate gland are all important in deciding how fertile any one male is.

Sperm production takes place most efficiently at a temperature of 33°C (91.4°F), and thus the testicles are *outside* the body, which has a temperature of 37°C (98.6°F). A normal ejaculate should:

- be greater than 2ml (or millilitres)
- contain at least 20 million sperm per ml
- have 30 per cent or more with a normal shape
- have 50 per cent actively mobile (it is quite normal for some 50 per cent of sperm to be 'duds').

Assessment of male infertility requires asking many questions about diet and lifestyle, a physical examination and examination of a sample of sperm. Quite often a sperm sample can be collected by using a post-coital test, which will also determine how it responds to the cervical mucus.

Absent or deformed testicles

Sometimes testes may have failed to descend from their original position high up in the scrotum or lower part of the abdomen. Newborn and infant boys are routinely checked to make sure the testes are descended. Small testes may be due to past injury, illness or sometimes developmental problems. Enlargement is most commonly due to a varicocele – enlargement of the veins around the testis – and this is present in 10 per cent of the normal population. This can raise the temperature of the testes, and contribute to a poor sperm count. Surgical treatment is often necessary.

Blockage of the vas deferens

A blockage of the duct leading from the testicles to the base of the bladder will result in a very low sperm count or no sperm in the ejaculate. Previous vasectomy is an obvious cause, and can be reversed by surgery. Sometimes the sperm-carrying ducts are distorted as they reach the area of the prostate gland. Consequently some or all of the ejaculate does not reach the outside world directly, but passes into the bladder. Sperm are detected in the urine that is passed after intercourse. This commonly happens after surgery on the prostate gland.

Excessive heat

The sort of heat which may be encountered by steel workers and bakers can be associated with a reduced sperm count. Severe obesity and tight underwear and trousers may play a part too.

Damage to the testicles

The chromosomal material in the sperm itself, or the motility of the sperm, can be damaged by:

- infection, especially sexually transmitted disease like chlamydia or non-specific urethritis (NSU)
- infection with mumps during adolescence or early adult life
- drugs as used for cancer and colitis or Crohn's disease
- radiation treatment
- exposure to environmental pollutants – lead, cadmium, mercury, pesticides, herbicides and other chemicals that have effects similar to the female sex hormone, oestrogen
- cancer of the testicle.

Chronic illnesses

Diabetes, cystic fibrosis, chronic disease of the nervous system, any chronic infection or unexplained fever, an underactive thyroid gland, disease of the pituitary gland and kidney disease can all affect sperm count. Sperm counts also fall in men who are paralysed by a spinal injury.

Social poisons

Alcohol and cigarette smoking are the most important, but marijuana and other recreational drugs can also affect the quality and quantity of sperm.

Lack of essential nutrients

Some nutrients seem to be particularly important to sperm production, and these include zinc, vitamins B and C. One experiment in healthy volunteers presenting mild zinc deficiency showed a dramatic reduction in sperm quantity and quality, and testosterone (male sex hormone) production, which took nearly a year to fully correct.

Stress

This might also be a factor in reducing a man's sperm count.

The modern world

A group of Danish doctors in 1992 published an important review of the fall in sperm count that seems to have taken place over the last fifty years. Looking at 61 papers detailing the results in nearly 15,000 men, there appears to have been a 40 per cent decline in sperm concentration and a 20 per cent decline in seminal volume over this time. Combined with the known increase in testicular cancer and developmental abnormalities of the genitals in new-born boys, this strongly suggests an environmental cause, probably due to pollution.

Smoking, alcohol and lack of some essential nutrients may also be factors. The escalating use of the oral contraceptive pill and hormone replacement therapy, traces of which can find their way into the general environment, should give us all something to be concerned about. Increased use of plastics and related chemicals, the pesticide DDT and the chemical PCBs used as insulators for electrical cables prior to 1970, have also been suggested as factors, because of their mild oestrogen-like effects. Decline in reproductive capacity could also be interpreted as an indication that the planet is becoming too crowded, and is Mother Nature's answer to the problem.

What your doctor can do

This does of course depend upon the cause, but unfortunately most of the treatments tried are not very successful. Self-help measures may be more effective at improving sperm count and function than are drug therapies.

- A wide variety of drugs and hormonal treatments, including steroids, have all been tried with either no benefit or uncertain benefit being recorded. Steroids can be useful in those men whose infertility is due to antibodies that attack their own sperm. Hormonal treatments are helpful only for the small percentage of men with true hormone deficiency.
- Surgery is useful if blockage of the ducts from the testicles is causing a low sperm count. Enlargement of the veins of the testicles, a varicocele, can be treated by surgery if there is a low sperm count, when infertility has been present for two or more years, and if there is no associated hormonal disturbance.
- Antibiotics are necessary to treat any infection of the testicles or prostate gland. Treatment for several months may be required.
- He could advise on Assisted Reproduction Techniques (ART), as on page 254. Test-tube fertilisation or *in-vitro* fertilisation (IVF) are often the best hope for many couples where a low sperm count is the main barrier to conception. Such techniques involve the collection of the partner's sperm, treatment with an agent that improve its function, bringing together the sperm and egg – sometimes by actually injecting healthy sperm into the egg – and return of the fertilised egg into the womb. In this way pregnancy can be achieved when there is a very low sperm count.

If there is no sperm, then donor sperm will have to be used, and the donor can be chosen to have similar physical characteristics to those of the male partner.

What you can do

Whilst none of what follows may be as important as the hormonal and surgical techniques that have revolutionised female infertility treatment in particular, they all have their importance. It seems foolish not to take simple common-sense measures to improve health before embarking upon costly assisted reproduction techniques. Remember that most of the advice that follows will take three to six months before it has a detectable effect upon body chemistry and therefore a subsequent influence upon your reproductive ability.

Certain nutrients seem to play a crucial part in the way ovaries respond to pituitary hormones (magnesium and possibly the EFAs), and in influencing female sex hormone metabolism in general (vitamin B, essential fatty acids and possibly magnesium and zinc). Severe deficiencies of these nutrients are rare except in women with very poor diets, or who are seriously ill or alcoholic. However there is now substantial evidence that mild undetected deficiencies are quite common, and they may have a modest effect upon the regularity of your menstrual cycle and ovulation.

What you both can do

- Cut down on alcohol and cigarettes. Ideally, you should both stop. Cigarette smoking in women is associated with reduced fertility and means a lower success rate in those undergoing assisted reproduction techniques.
- Eat a healthy diet with plenty of fresh fruit and vegetables. The high content of vitamins A, C and E act as anti-oxidants that help limit the adverse effects of many environmental pollutants. Ensure a good intake of protein-rich foods of either animal or vegetable origin. These are particularly important for men as they are good sources of zinc, which seems to play such a crucial role in sperm production and function.
- If you are very overweight then lose weight, and if underweight try to gain weight, but always by eating healthy nutritious foods. Rapid weight change, gain or loss, is usually undesirable, especially in women.
- If you are on long-term drug therapy ask your doctor or specialist to review your need for medication. The goal is the minimum effective dose for a drug or drugs, with the least risk of side-effects. In men, drug therapy for mental problems or Crohn's disease could be reducing sperm count.
- If you have any chronic illness that is not being adequately treated at present, then check with your doctor.
- Limit exposure to environmental chemicals. Take especial care if your work involves handling heavy metals, pesticides or industrial chemicals.

For women

- Follow the preconception programme on page 386.
- Limit consumption of tea and coffee to a total of four cups per day. More might have a small adverse effect on the chance of conceiving.
- Do not consume more than three cans of soft drink, low calorie or normal type, per week. This is about 1 litre (1³/₄pints) in volume.
- Consider taking nutritional supplements, depending upon your health circumstances. Expert advice is often desirable and if you are receiving infertility treatment then you should always check with your specialist about these before commencing.
- Iron may be needed by those who:
 - have heavy periods
 - are poorly fed, such as vegetarians who are also tea drinkers
 - have symptoms of iron deficiency, e.g. recurrent mouth ulcers or a sore tongue
 - have flattened or up-turned nails
 - have poor hair growth.
- Folic acid should be taken by all women who are trying to or who might conceive. The dose is 400 mcg per day. Those women who have had a previous pregnancy complicated by a neural tube defect will need to take 4 mg per day.
- Vitamin B Complex could be needed by those who:
 - eat poorly
 - consume more than an average of two units of alcohol daily
 - suffer from significant anxiety or depression
 - have any illness that has caused recent weight loss
 - have recurrent mouth ulcers or a sore tongue.
- Vitamin B12 may be needed by vegans. All women wishing to become pregnant should be taking folic acid, and as a wise precaution all vegans should also take a vitamin B12 supplement. A mild deficiency of vitamin B12 could be made worse by taking folic acid, resulting in damage to the nervous system and numbness in the hands or feet. An appropriate dose of vitamin B12 is 5 mcg per day.
- Zinc is necessary for optimal functioning of the reproductive organs.
- Magnesium might be useful for those who are deficient, and have trouble ovulating regularly. Early symptoms that could indicate a lack of this essential mineral are:
 - premenstrual syndrome – physical or mental symptoms
 - muscle pains or cramps
 - fatigue.

An appropriate dose is 300 milligrams per day. Once pregnant, your need for these supplements may well change. Again check with your GP or specialist.

For men

- Avoid use of jockey-style underwear and underwear made from synthetic materials. Cotton boxer shorts will help keep the testicles at the right temperature.
- If your sperm is low, then rather than ‘saving it all up for one good go’ it would seem better to have more frequent intercourse, especially around mid-cycle. The optimum frequency of intercourse to maintain a good sperm count is two or three times a week.
- Do not have excessively hot baths or showers. Limit the time you spend in a sauna. Avoid exposure to excessively hot environments, at work for instance.
- Take nutritional supplements of Vitamin C (about 500 mg) and a good quality multi-vitamins. These can all help improve sperm count, especially if you have low levels of vitamin C. Vitamin C prevents the sperm from clumping, making them more motile. These moderate doses can be safely taken in the long term, but the positive effects are likely to take three or six months at least to be felt. Supplements of other nutrients may be needed if you have deficiencies or other health problems.
- Zinc is fundamental for reproductive health and enhances sperm production.
- Deficiency of the mineral selenium has been linked to a low sperm count.
- The amino acid L-arginine plays an important role in increasing sperm count and sperm motility.
- Manganese maintains sex hormone production.

Remember that all of these factors are likely to take some time to show results. Whilst getting yourselves into better condition, you will both need a little patience. If you haven't managed to conceive after two years of regular sexual intercourse you will need to see your doctor with a view to organising some specialist investigations. Most doctors do not initiate any treatment until after three years, though this can be less in older couples.

Complementary therapies

Whilst complementary therapies cannot be relied upon to solve the problem of infertility, it may be worthwhile having some acupuncture from an experience practitioner or consulting a cranial osteopath in order to free any blocked energy.

Carole's story

Carole was a 33-year-old who was experiencing problems with infertility at the time when she approached us.

I had been investigated for infertility in the mid 1980s as we were trying for a baby for three years without any success. The doctors did not think I was ovulating, although there was no concrete evidence, and eventually I managed to fall pregnant. We were hoping to have several children in quick succession but after a further two years without any success we began investigations again. Our GP referred us to a consultant who confirmed that I was not ovulating. My periods were very irregular at the time and I was put on Clomiphene for three months and then a double dose for a further six months. However the tests didn't change – even after the treatment I was still not ovulating.

By this time I had developed very severe premenstrual tension. I think the strain of trying to conceive had got to me. My behaviour was utterly uncharacteristic and I experienced all manner of symptoms ranging from migraine to mood swings, bloating and irritability, from which I seemed to have no respite. When I was not knocked out by migraines or an upset stomach I was prone to violent mood swings and at one point tried to attack my husband. I regularly wept for no apparent reason. I felt so ill I was never in the mood for sex, which affected both our marriage and our plans to conceive. My husband actually phoned The Samaritans at one point because I was so emotionally out of control. He had asked me why I was unhappy and I replied 'I'm not unhappy, I was just ill'. Of course it was difficult for him to understand.

My doctor said I was causing the symptoms because I wanted to have a baby so much, so eventually I decided I ought to go and see a psychiatrist. At about that time a close friend of mine read an article about the work of the WNAS and suggested I bought a book called No More PMS! which I did. I put myself on the diet straight away and contacted the WNAS for some help.

As a fifteen-coffees-a-day woman and a Diet Coke addict, I was advised to cut these out and also to initially stop eating wheat and other grains, except rice and corn, and I also gave up cheese. I was told to exercise and take nutritional supplements. For the first time for as long as I could remember I had two normal regular cycles with no PMS. A week later the migraines stopped. Inside two months my erratic moods had abated. A regular cycle had been re-established which I hadn't had for years, and my libido was restored. I felt so well that I decided to relax the diet and then had a dreadful month with a 50-day cycle.

When I went back to the clinic and went over my charts it seemed that the wheat that I had recently been eating had aggravated the situation. I was asked to cut it out again and after having some tests I was given some extra zinc and magnesium as well as my other

supplements. I am delighted to say that I fell pregnant the next month and had a very smooth pregnancy and a lovely baby daughter.

I have to stick to the diet which I sometimes find difficult, as wheat, chocolate and dairy products all seem to affect me in different ways. I have since added a herbal preparation to my supplements as it seems to help to normalise my cycle. My husband was both relieved and delighted that not only was I able to overcome my symptoms but also that I was able to conceive without difficulty for the first time in years.'

See also: Standard references and Recommended reading (*Healthy Parents, Healthy Baby*).

Influenza, Recurrent Coughs, Colds and Sore Throats

Hardly anybody needs to be told but for those few who might never have suffered, the common cold is a short-lived infective illness due to one of several easily transmitted viruses. Symptoms include nasal stuffiness with the production of profuse watery catarrh. A fever, which is not usually great, may be present too. Severity varies from person to person and depends also upon changes in the virus that allows it to bypass the immune system's defence mechanisms. In most people the illness lasts a few days and rarely more than a week.

Influenza is a viral infection that typically occurs as a widespread outbreak. It is caused by several strains of the influenza virus known as A, B or C. Typical features are headache, muscle aches which can be severe, a fever, sore throat, cough and nasal catarrh. The illness lasts from two to seven days unless secondary infection with bacteria develops, causing bronchitis, pneumonia or sinus infection.

Sore throats are most often due to viral infections which may cause inflammation of the conjunctiva (red eyes), or a cough due to a chest infection. Occasionally, though, they are due to bacterial infection that may need antibiotic treatment. Many of us will experience around four to six such infections each year though half of these may be so mild as to pass virtually unnoticed.

With simple viral infections, provided they are uncomplicated, there

should be little constitutional disturbance, unlike influenza. Some people seem prone to these viral infections, especially in the elderly or those with poor resistance to infection.

Who gets them?

We all do, especially young children. Influenza is more common in the winter months. As the virus can spontaneously make subtle changes to itself, thus evading the immune defences caused by previous infections, we are all prone to infection every few years especially with new strains. Immunisation is effective, though not completely so, and is offered yearly to those with heart, lung or kidney disease, the elderly, diabetics, those with poor resistance to infection, and some health-care workers.

Colds and sore throats are common throughout the year, though slightly more so in the winter months. Incubation following initial contact with these viruses is one to six days.

What your doctor can do

- For all viral illnesses affecting the upper airways there is little treatment. Prevention by immunisation is only effective for influenza, and it is only appropriate for those groups already detailed.
- Aspirin may help with the fever and pain of these infections but actually increases the shedding of common cold viruses. A drug called amantidine is effective for reducing the severity of influenza caused by type A infections, but only if given before the illness starts so it can be used early on in some outbreaks.
- Antibiotics are needed if an infection with a bacterium follows causing a cough or nasal discharge with yellow or green mucus.

What you can do

- Ignore it if symptoms are mild.
- Since there is no real cure for the common cold, the best remedy is to prevent getting a cold in the first place by boosting your immune system.
- Take supplements of vitamin C (1 g three times per day) although the evidence in favour is small.
- Suck zinc lozenges three times a day – these have been shown to reduce the duration of a sore throat. The high concentration of zinc in the throat may be harmful to the virus, and the zinc that is absorbed can act as an immune stimulant.
- Vitamin A is useful as it helps heal the inflamed mucous membranes and strengthens the immune system.

- Take the herb echinacea which is renowned for its potent immune-enhancing properties. It works more effectively if taken only at the onset of a cold or when feeling low. If it is taken on an ongoing basis the body's own immune mechanism might become compromised. Echinacea can be taken in tablet form or as a liquid tincture.
- Have a steam inhalation. These are old fashioned but effective at reducing the duration of symptoms especially if there is nasal stuffiness. The steam needs to be as hot as possible. Pour freshly boiled water into a large bowl which is securely placed on a table. Sit at the table and place a large towel over your head and breathe in deeply through the nose. Do this for ten minutes three times a day. Such inhalations are particularly useful if there is a lot of sticky phlegm on the chest or nasal catarrh that is difficult to clear. You can add some eucalyptus or menthol preparations to it if you like.
- It may be worth going on a mild fast for two or three days. Drinking plenty of clear liquids and eating mainly fruit could help, as strict fasting can stimulate immune activity. Furthermore, if there is a degree of nasal sensitivity to a food (most commonly, dairy products) then avoiding this could benefit some. For those who have more than two upper respiratory tract infections each year, especially if this has led to taking antibiotics then the following may be helpful:
 - Eat The Very Nutritious Diet (see page 437).
 - Don't smoke, and drink very little.
- Take supplements of a moderately strong multi-vitamin, zinc 15–20 mg, and vitamin A, 4,000 IU per day. If deficient, the latter can make it easier for bacteria to adhere to the lining of the airways. The first two were taken in a trial of healthy elderly regularly over one whole year and were shown to approximately halve their rate of these infections and subsequent use of antibiotics.

Pamela's story

Pamela had had a full and busy life and now, at the age of 75, she was troubled by persistent fatigue. In fact she had felt fatigue for about 30 years, then when she was still bringing up three children she had a severe viral pneumonia and had felt that her energy levels had never been the same since. She had managed through her middle years but now, as an elderly lady her reduced energy level meant that she spent most of her time at home indoors and rarely enjoyed the walks and gardening that she had managed in the past. She seemed predisposed to recurrent minor infections, coughs, colds and sore throats that never missed their opportunity to punctuate her winter months. Fortunately, she rarely required antibiotics. She had lost a few pounds in weight but there were no other features to think that

there was anything more sinister. Indeed she had been very thoroughly assessed by a local physician a few months earlier and all routine tests were satisfactory. She had occasionally been found to have a low white cell count in the past, perhaps indicating her reduced resistance to infection. However she herself had tried taking a variety of nutritional supplements with no clear cut benefits.

She found it difficult to keep her weight much above 51 kilos (8 stone), she also found it difficult to eat large or rich meals which caused her to experience abdominal bloating and discomfort.

Nutritional investigations had shown a surprisingly low level of retinol (vitamin A), 136 mgs per litre (200–650). The level for zinc was also very reduced at 7.6 mmols per litre (11.5–20) and a number of other essential nutrients were also reduced. Low levels of zinc and vitamin A are quite strongly linked with poor resistance to infection and repeated upper respiratory tract infections which were clearly part of Pamela's problem. Perhaps her poor digestion lay behind it.

She began supplements of strong multi-vitamins and zinc and was advised to take some digestive enzymes with her meal. It actually took about six months before her nutrient levels came up, and as they did she gained a few pounds in weight, her energy level improved and she began to experience fewer coughs and colds. There was significant improvement in her levels for zinc and vitamin A.

All the patients are predisposed to mild to moderate nutritional deficiencies which may significantly impair their resistance to infection. For many in this situation it would seem a good policy to take moderately strong multi-vitamin and zinc preparations.

In Pamela's case it is not known how long she really had the deficiencies.

Insomnia

Anyone who has ever suffered from disturbed sleep will tell you that sleep is a vital part of our life, probably taken for granted by those who have never experienced problems. Whatever the reason for the insomnia, be it anxiety, bereavement or simply jetlag, it leaves us feeling washed out, with our vitality crushed. We feel unrefreshed, irritable and listless, and as we are not as alert, we are more prone to making mistakes.

The main features of insomnia are difficulty falling asleep, an inability to stay asleep, or waking in the early hours and not being able to get back to sleep. Sufferers usually feel frustrated because they feel they should be asleep, and they invariably feel tired and washed out the next day.

Insufficient sleep may have serious repercussions in people of all ages. In children it may cause growth retardation, it can affect the academic performance of adolescents, cause under-achievement in the workplace and contribute significantly to the cause of accidents.

- Nearly four out of ten individuals do not get a regular night's sleep which affects their alertness.
- One-third of adults experience difficulty falling asleep or remaining asleep.
- Approximately 60 per cent of the elderly suffer from disorders that disrupt sleep, like snoring or sleep apnoea, where breathing ceases temporarily.
- Sufferers are often more tired during the day, not sufficiently alert to even drive a car. Road traffic accidents, for example, have been associated with sleepiness in 27 per cent of cases, and in one study accounts for 83 per cent of the deaths on the road, even more than deaths from alcohol-related accidents.

What causes it?

There are a variety of underlying factors that disrupt our sleep pattern:

- It is thought that in 50 per cent of complaints of insomnia there is underlying anxiety or depression. Stress, tension, grief or fear can all keep us awake.
- Caffeine, found in tea, coffee, chocolate and cola-based drinks, can stimulate us to the point of insomnia.
- Some drugs may produce side-effects which include insomnia, or may induce disturbing dreams which cause us to wake during the night.
- Withdrawal symptoms when coming off certain drugs.
- Alcohol in excess will also produce insomnia.
- Any painful condition e.g. arthritis.
- Any condition that causes you to break your sleep e.g. cystitis or diarrhoea when you need to go to the toilet.
- Day-time napping can prevent us having a sound night's sleep.
- A cold bedroom, especially for the elderly, could be enough to keep them awake at night.
- Shift work, which involves working some nights and not others is likely to severely disrupt your sleep pattern. We regularly see nurses and air hostesses with problems that relate to their poor sleeping routine, as the menstrual cycle is disturbed by the lack of routine.

What your doctor can do

- The first step is to exclude the possibility of any underlying cause, especially if there is pain. He should do a physical examination and routine

blood screening to check for thyroid problems, diabetes, low iron stores, infection or other serious problems.

- Check to see whether anxiety or depression is keeping you awake.
- Give you instructions about 'sleep hygiene' – going to bed at a regular time, not napping during the day, making sure your room is warm enough, that your bedcovers are comfortable, and that there is no external noise to disturb you.
- Reassure you that your problem is likely to be short-lived.
- Prescribe sleeping pills in the very short term to break the pattern of insomnia and re-train you to sleep through the night.
- If you are depressed, he may prescribe antidepressants, and in severe cases refer you to a psychiatrist for further investigation and treatment.

What you can do

- Pinpoint the reason for your insomnia, either by visiting your doctor if you feel it may be a symptom of a medical condition, or by discussing your problems with your partner or a close friend.
- Take concerted steps to sort out the problem to alleviate your worry or anxiety. The problem may take some time to resolve, so you will need some intermediate measures to get you through.
- Eat well. Follow the instructions for The Very Nutritious Diet on page 437. Never miss a meal, and eat wholesome snacks between meals, especially in your premenstrual week if you are menstruating, as your calorie requirements are increased by up to 500 calories per day.
- Never go to bed on a full stomach: eat earlier on in the evening allowing sufficient time for your food to digest. This is more important for older patients or those with digestive troubles.
- Take plenty of exercise during the week, at least four or five sessions, out in the fresh air when possible.
- Learn how to relax your body and mind by practising daily one of the relaxation techniques (see page 29). You can use these techniques before going to bed (or in the night to help you get back to sleep).
- Eliminate the stimulant caffeine from your diet completely, and use alternatives (see page 7). Cut down gradually or you will get a withdrawal headache.
- Cut down on cigarettes if you smoke, or give up completely, as nicotine can act as a stimulant.
- Keep your alcohol consumption to a minimum, especially at night. Many people are under the misconception that alcohol is a hypnotic; it does induce sleep, but as it metabolises it acts as a stimulant.
- In the evening try eating bananas, figs, dates, yogurt or a milky drink. These foods are high in the amino-acid tryptophan which promotes sleep. Eating a grapefruit at bedtime may also help.

- Avoid bacon, cheese, chocolate, and red wine. These foods contain tyramine which increases the release of noradrenaline – a brain stimulant.
- Take a supplement of 5HTP, the precursor to the amino acid tryptophan, which in turn is converted into the neurotransmitter serotonin. 5HTP is much closer to serotonin than tryptophan and it is not dependent on a transport system for entry into the brain.
- Co-factor nutrients that assist the conversion of tryptophan into serotonin should be supplemented for maximum benefit. A B-complex together with the mineral magnesium ensure its conversion to serotonin.
- Protein should be avoided when taking 5HTP because the amino acids in the food competes with tryptophan for transport into the central nervous system. Eat a small carbohydrate snack alongside taking the supplement.
- Take a supplement of magnesium, preferably as amino acid chelate which is better absorbed. Magnesium works by relaxing the central nervous system and promoting uninterrupted sleeping patterns.
- Herbal preparations like valerian have been used for centuries for the natural treatment of insomnia. Several studies have confirmed valerian's ability to improve sleep quality and alleviate insomnia.
- Passion flower is also a good adjunct which has been widely used in traditional folk medicine for its natural sedative and analgesic properties.
- Make sure that you have a quiet, warm and comfortable environment in which to sleep. Having a good mattress with clean bedding might well help.
- Train yourself to go to bed at a regular time each night, before midnight, but not too early.
- Don't watch any scary films or upsetting television programmes before going to bed.
- When in bed, don't think about the day's activities, try to concentrate on something pleasant, and consciously relax your muscles.
- Cuddle up to your partner if you have one. The warmth of another person can help you get to sleep.
- An orgasm will often induce sleep – so this may be one problem that your partner will be only too keen to help you solve!
- Set your alarm for a regular time, unless you are a shift worker, as this will help you re-establish a routine.

When you wake in the night

- Instead of lying awake worrying, get up, make yourself a warm drink and read, watch a video or practice some relaxation technique, before

returning to bed. This often does the trick and takes the frustration out of the situation.

- Go back to bed when you feel sleepy. Practice relaxing your muscles again and getting your mind to wander to a favourite location (see page 31).
- If you are still awake 10 minutes later, get up again, go to another room, do some more reading or relaxing.

Try not to worry or get too frustrated about not being able to sleep, as it is much more tiring than just being awake!

Complementary therapies

They are tremendously valuable in the treatment of insomnia that does not have an underlying physical cause. Acupuncture is very effective, but it requires a course of treatment to gradually ease you back into a proper sleep pattern. Herbal preparations and homeopathic remedies are useful tools, but you would be advised to seek professional help, as there will more than likely be other related problems that need addressing, too. It would be worth visiting a cranial osteopath to see whether there are any lesions that need attention, and having a massage before bed, with some relaxing aromatherapy oils like lavender, geranium or melissa, which will help to induce sleep. A useful homeopathic remedy is Coffea 6X, taking two before you go to bed.

Angela's story

Angela was a 56-year-old teacher with two children. Despite being desperately tired she was unable to sleep. Her health had been so badly affected that she had retired from her job.

'For eleven years, prior to the menopause, I had heavy periods, headaches and moodswings. My last period was in November 1993. Since then I had suffered with hot flushes, my libido had disappeared, and my vagina was dry. My doctor prescribed HRT which I took for five months, but the side-effects were so severe that I had to stop taking it. I was unable to sleep at all and experienced terrible panic attacks, plus my curly hair went straight and unmanageable.

Not being able to sleep seemed to be affecting my brain. I couldn't retain anything in my mind, and was anxious about everything. I usually play bowls but did not have the energy or the confidence to go to games. I have a super husband and lovely grandchildren, but I couldn't be bothered with them either. I felt really cheated as I knew I was missing out on life, but I just wanted to be left alone to doze in the afternoon.

A friend recommended that I go to the WNAS clinic, which in desperation I did. I was asked to get my doctor to measure my serum ferritin levels, which is a test to detect low iron stores. Plus I was given a programme which consisted of making dietary changes, relaxation, supplements and exercise.

My doctor did find that my serum ferritin was very low, and as a result I was put on a course of iron pills. I followed the programme closely and within a month felt that my symptoms were calming down. I began to sleep for parts of the night, my flushes were calming down and I didn't feel quite so tired. The next couple of months were hampered a little because I developed diarrhoea. We eventually discovered that I was reacting to the vitamin E and ginseng which were designed to help with the flushes, and when I stopped taking them my bowel settled down.

I continued to make gradual progress through the year. I avoid wheat and coffee completely, even decaffeinated which seems to upset me. I feel that I am now back to my old self and have been able to cope well with two family crises that have occurred. I am able to sleep through whole blissful nights again, my social life is restored and so is my sense of humour, and as an added bonus my libido is back. My husband is relieved and we are both very grateful to our friend who suggested we visit the WNAS.'

See also: What's wrong with the present-day diet and lifestyle?, Alcohol, Cystitis, Diarrhoea and Arthritis if applicable, The very nutritious diet, References and Recommended reading.

Irritable Bowel Syndrome (IBS)

Irritable bowel syndrome is the modern name for a condition that was formerly known as spastic colon. It is the most common functional gastrointestinal disorder, and is present in up to 20 per cent of the general population in the UK, yet its diagnosis by simple means remains a dilemma. This, however is not a true figure, as many sufferers decide that their bloating is not a real problem, and therefore do not seek professional advice. If they were all to decide to consult their doctor or a consultant, this would place an impossible burden upon medical care facilities in the UK. IBS accounts for almost 50 per cent of outpatients seen by British gastroenterologists each week. The other costs of IBS are

mainly in lost quality of life and the effect it has on social life and family health.

The occurrence of IBS almost exclusively in civilised nations, places it in the class of so called 'civilised diseases', stemming from its main causes which are dietary and lifestyle. A typical western diet, consisting largely of refined and adulterated food, over-consumption of one or two staple foods and hurried meals are just a few of the underlying causes of IBS. Epidemiologists often refer to IBS as an acquired disease to which food and environmental factors are the most likely contributing factors. If so, they are largely avoidable, yet the medical profession's first response is not prevention but medication.

For a diagnosis of irritable bowel syndrome to be made, a patient must have no underlying sinister symptoms, but be suffering with either constipation or diarrhoea or both, and abdominal pain and/or bloating and wind.

According to a large UK study published in 1965, a 'normal' bowel habit was considered to be anything from passing motions three times per day to three times per week. At the time 99 per cent of the population survey fell within these limits. It was also discovered that despite this many people still complained of diarrhoea or urgency, or constipation with stools difficult to pass. A further American survey some twenty years later revealed that 94 per cent had a stool frequency of between three times a day and three times per week. However, further questioning about a variety of bowel symptoms revealed that a total of 17 per cent had symptoms indicative of bowel dysfunction.

Surveys on precisely how common IBS is, vary from between 10 to 25 per cent. The most recent UK survey conducted on 2,000 adults from the Southampton area found that a total of 24 per cent of women and 19 per cent of men reported symptoms consistent with IBS. Many people who are troubled by it do not consult their general practitioner but muddle on alone. One wonders how the medical facilities would cope if everyone with IBS turned up for help!

What are the symptoms?

- constipation – opening the bowels infrequently, or hard stools
- diarrhoea – loose rather than just frequent stools
- alternating diarrhoea and constipation
- abdominal discomfort or pain
- abdominal bloating
- excessive wind
- mucus or slime in the stool
- nausea and loss of appetite
- indigestion

It is usual with IBS that patients will suffer with either diarrhoea or constipation, or a combination of the two, together with abdominal bloating and some discomfort or pain. These are the most common and typical symptoms.

What causes it?

- *Age* Many people develop IBS symptoms in young to middle age, although approximately 12 per cent of those with IBS did experience symptoms during their childhood.
- *Operations* It has been observed that approximately 10 per cent of women are more likely to suffer symptoms of IBS following an operation like a hysterectomy or surgery on the ovaries. These operations can leave internal scar tissue which is thought to be connected in some way to the onset of symptoms.
- *Radiotherapy* When the abdomen has been targeted by radiotherapy, scarring can occur which may then once again produce symptoms of IBS.
- *Gynaecological problems* The female reproductive organs have a very close relationship with the bowels. The womb, or uterus, is next to the end of the colon and a significant amount of the small bowel sits loosely coiled on top of the uterus. Many conditions relating to the uterus can release powerful chemicals which also influence the gut. A study by Dr Prior and colleagues on a sample of 200 women found that many of them noticed improvements in their bowel functions following a hysterectomy. Twenty-two per cent of his sample had IBS before surgery, and two-thirds reported improvement in their symptoms following the operation.
- *Gastrointestinal infection* Most of us have experienced a severe tummy upset whilst on holiday or after eating a take-away meal. Sudden onset of diarrhoea, sometimes accompanied by pain and fever, can either be caused by bacteria or by a virus. Usually it doesn't last for more than a few days, but sometimes the gut never seems to feel the same again, and symptoms of IBS develop.
- *Other bowel conditions* Older people sometimes develop a condition called diverticulosis of the colon, when the weak walls of the colon begin to bulge, and this can sometimes cause symptoms of IBS as well. A lack of fibre may lie behind both conditions. Patients suffering with ulcerative colitis, a severe inflammation of the gut which causes diarrhoea and bleeding, may also experience symptoms of IBS, even when the colitis is controlled by drugs.
- *Drugs* Some pain-killing drugs can cause symptoms of IBS, either shortly after they are taken, or several months later. Antibiotics, certainly if taken in the long-term, can cause diarrhoea as a side-effect which may set up IBS-type symptoms in some. This seems to be due to

a build up of *Candida albicans*, the organism responsible for thrush. This is often self-limiting and passes off, but for some it persists. Sometimes supplements of iron or multi-vitamins and minerals containing iron can irritate the gut also and produce symptoms of IBS.

- *Stress* There is now plenty of evidence to show that stress can worsen symptoms of IBS. The stress factors affect the muscles in the gut and can cause them to go into spasm, rendering the bowel inefficient, and causing pain. Chronic sufferers of IBS sometimes suffer with anxiety and depression as their symptoms remain unresolved, which produces a vicious circle.
- *A change of diet* Food intolerances sometimes develop after a period of eating substantial quantities of the same food, or when new foods which are hard to digest are introduced. Further information on this subject can be found in the information on Food Allergies (see page 58).
- *Nothing* Strangely, it seems that symptoms of IBS occur out of the blue with no single precipitating factor. Perhaps a subtle combination of circumstances may be the underlying cause or perhaps there may be genetic factors at play.

What your doctor can do

Twenty years ago, it used to be fashionable in medical circles to investigate patients complaining with symptoms of IBS, with a view to diagnosing a stomach or duodenal ulcer, gall stones, digestive problems or problems with the colon, or large bowel, particularly diverticulosis. IBS was a diagnosis made by the doctor when nothing else could be found. This meant that patients were often subjected to numerous tests including blood tests and x-rays, that were unnecessary. This was frustrating for patient and doctor alike.

Times have fortunately changed. It has become recognised that IBS is often the diagnosis for young to middle-aged patients, with abdominal pain or disturbance of bowel function. There are no tests to verify the diagnosis of IBS, it is often made on a balance of probabilities. It is important to be screened by your doctor to eliminate the possibility of any sinister underlying cause to your symptoms.

What you can do

- Follow an exclusion diet outlined in the Menu for Irritable Bowel Syndrome on page 472. An exclusion diet involves avoiding all commonly allergenic foods for a set period of time, then reintroducing them one by one. The most frequently implicated foods are wheat, dairy, eggs and citrus foods.

- Take a probiotic supplement which provide a standardised dose of the healthy bacteria *Lactobacillus acidophilus* and bifido bacteria. Eating live yoghurt might also be helpful, but supplements ensure a more precise dose. Most probiotics require refrigeration, but some do not have special storage requirements.
- If you are constipated add 1–2 tbsp of organic golden linseeds to your wheat-free breakfast cereal daily. They can be crushed and soaked in water or milk (soya or rice ‘milk’) for maximum efficiency. Crushing and soaking them reduces the risk of any associated discomfort such as bloating. Refer to the chapter on constipation for more information.
- Take supplements of magnesium amino acid chelate to improve bowel function if your are constipated. Magnesium works by relaxing the smooth muscles of the gut. The WNAS recommend taking it ‘to gut tolerance’ which means that too much can result in loose stools. Monitor and adjust your dose accordingly.
- Aloe vera is a good adjunct to a specific dietary and supplement programme. Aloe vera is used primarily to heal the digestive tract. Be aware of cheap inferior brands on the market, and choose one from a reputable manufacturer. Aloe vera is available in liquid or gel form.
- Take some digestive enzymes. These function to mimic the natural enzymes secreted by the pancreas and stomach. Sometimes these are lacking in patients with IBS, especially those who suffer with chronic bloating and a feeling of fullness soon after eating, even small quantities. They shouldn’t be taken in the long term as the body might lose its ability to produce these enzymes naturally.
- Charcoal tablets are quite a good standby for the immediate relief of bloating and discomfort. However do not take daily or at the same time as nutritional supplements because the charcoal can actually inhibit the absorption of nutrients.

Complementary therapies

Creative visualisation is a wonderfully simple and most enjoyable method of relaxation, that requires little or no training. It is perfect for those who haven’t had the time to learn how to practice yoga or meditation. We advise patients to lie flat on the floor, with a cushion beneath the head. Bend your knees and place your feet flat on the floor, so that you are in what is called ‘The Alexander position’ after the founder of the Alexander Technique. Next, close your eyes, take some slow steady breaths, and consciously relax your face, your fingers and your toes. When you feel comfortable, whilst still breathing slowly and steadily, you simply visualise any fantasy you fancy, from a world cruise to a good night out! The trick is to keep your mind on the trip in question. It seems to be an acquired skill, and one that you may have to work at. If you have a very

busy mind, you may need to have a pen and paper handy at first, in order to download your thoughts. You need to do this for fifteen or twenty minutes per day, and then gently come back to reality, rolling over on to your side prior to standing. Some patients feel so relaxed doing their creative visualisation, that they fall asleep!

Sinister symptoms

It is essential for you to become familiar with some of the possible sinister underlying symptoms, which may produce IBS-type symptoms, but are not IBS, and their treatment is quite different. Here is a check-list of further symptoms for you to examine:

1. **Have you recently developed symptoms which are severe?** In this case it is always best to have a medical examination.
2. **Do you have severe abdominal pain?** For example, can it wake you from sleep? Does it cause you to stop what you are doing? Does it put you off eating?
3. **Have you lost weight because of your bowel symptoms?** Losing any more than a few pounds in weight should not be regarded as IBS.
4. **Do you regularly pass more than four stools per day?** Diarrhoea from any cause can contribute to a loss of essential nutrients, even if there is no weight loss.
5. **Have you passed blood in the stool or passed dark coloured stools?** Loss of blood from the bowel requires investigation because it may not always be due to IBS.
6. **Have you had a fever with your bowel symptoms?** Infection in the bowel from parasites or other causes should be considered. Some parasitic infections can be found in the UK without travelling abroad.
7. **Have you had any abdominal operations including an appendectomy?** Past operations can leave behind strands of tissue called adhesions that can interfere with normal bowel function. If your bowel symptoms followed an operation you should return to your doctor.
8. **Are you aged fifty years or more?** This increases the risk of symptoms being due to bowel cancer or a polyp (a small growth inside the bowel) which may become cancerous. Again you should check with your doctor if you have not already done so.
9. **Did your mother, father, sister or brother develop cancer of the bowel under the age of fifty?** If so, you should also check with your doctor. Sometimes this type of problem can run in families affecting relatively young or middle-aged members. Early detection of those at risk is now possible with a marked improvement in outlook for them.

10. **Do you have any vaginal discharge, pain on intercourse or pain very low down in the abdomen?** Infection of the fallopian tubes is particularly common in young women with these symptoms, which can sometimes aggravate, or be confused with IBS.
11. **Are your periods painful, heavy or irregular?** A number of gynaecological problems may cloud the picture at times. Fibroid growths of the womb, cysts on the ovaries, and sometimes hormonal problems should all be considered if you have any of the above.

Once the diagnosis of IBS is made, what is on offer from your doctor will depend whether you are suffering with diarrhoea, constipation or a combination of both. For further details of what your doctor can do, and what measures you can implement yourself, you will now need to refer to the chapters on Constipation (page 136), Diarrhoea (page 174) and Abdominal Bloating (page 45).

The good news is that symptoms of IBS are both treatable and curable. We have written a book called *No More IBS!*, which is based on our success treating this condition at the WNAS. If you require personal advice you will find details of our clinics and help-line services on page 511.

Belinda's story

Belinda was a single 32-year-old who had been suffering with severe bowel problems for two years prior to approaching the WNAS. She was very distressed as both her work and social life were affected.

'Looking back I realise that my symptoms began at about the time that my relationship ended with my boyfriend. We had been together for two years, and I found it very difficult to cope with the break-up. I began to have severe episodes of bloating and constipation every day, with extreme abdominal pain. I even found it difficult to sit down at work. Each day by the evening I was in so much pain, I could only go to bed and wait for the pain to subside. I felt awfully drained and lost quite a bit of weight, which I could ill afford to do.

I was referred to the hospital for tests, including a small bowel enema, ultrasound and x-rays, and in November 1992 I was diagnosed as having IBS, and told to go on a high-fibre diet. The hospital doctor told me there was no known cure, and when I asked in desperation what I could do as I was still in constant pain, and with a redundant wardrobe, due to the swelling, he said I would have to buy bigger clothes. I was very shocked and angry by his unsympathetic response.

So a vicious circle began. I took painkillers, which brought on severe constipation and distress, which could only be relieved by

laxatives. My doctor prescribed Colpermin, to make eating easier, but this only brought me out in a rash and the list of possible side-effects was quite alarming.

In May 1993 I went along to the WNAS clinic at the suggestion of a friend who had been treated successfully by them. I must admit feeling sceptical when I went along for my first appointment, as I couldn't imagine that diet alone would be the solution to this severe problem. I was put on to a basic diet, asked to keep daily symptom charts and seen fortnightly for a review. While I did have some good days, I still had more bad days. After three months and very little change I was on the verge of giving up, when I was told that in addition to excluding the foods we had so far, I should also leave out rice, corn, potatoes and bananas. It was also suggested that I take linseeds with my cereals and extra magnesium at night to relieve the constipation. To my utter amazement, my symptoms calmed down. The constipation was no longer a problem and the pain and bloating subsided.

I am happy to live on a restricted diet as I have traded the foods that upset me for my health. I am making great progress at work and have found a wonderful new boyfriend. I am very grateful as I now look forward to each day.'

See also: Stress, exercise and relaxation, The simple exclusion diet, The strict exclusion diet, References and Recommended reading.

Ischaemic Heart Disease

This is a disease in which there is a narrowing and eventually blockage of the blood vessels that supply the heart muscles. These vessels, which are called the coronary arteries, carry a very substantial flow of blood and oxygen to the ever-active heart muscle. The narrowing is due to the slow development of what is termed a plaque. This is made up of fatty deposits, and fibrous tissue which develops in response to the fat deposit. The internal diameter of the blood vessel is reduced and even a small plaque can halve the flow of blood through one of the several coronary arteries. This process of arterial narrowing and hardening is called atherosclerosis, and the same process takes place in other major arteries, leading to strokes and poor circulation to the legs.

Very often the slowed blood that is attempting to flow through the coronary arteries is sticky, and a clot easily forms and adheres to the surface of the plaque. This leads to a complete blockage of a major coronary artery, which in turn leads to the most important manifestation of ischaemic heart disease, a heart attack or acute myocardial infarction

(literally heart muscle that is stuffed with old blood). Needless to say that the heart muscle previously supplied by the now occluded artery will die, and the patient will at the very least be left with a weakened heart.

The next most important consequence of ischaemic heart disease is angina. The narrowing of a coronary artery does not always lead to blockage. The artery may have an adequate blood supply for the needs of the muscle it supplies provided that the heart is not working too hard. But when walking briskly, walking uphill or running, the supply of oxygen may be inadequate. The level of certain chemicals rises in the heart muscle which leads to pain usually felt as a 'tight' pain in the centre of the chest, which may also pass into the left arm, up into the neck or through into the back. The pain is often sufficiently severe to cause the sufferer to stop whatever they are doing and rest, which in many cases is enough for the pain to ease. The whole episode may only last a few minutes but recur every time the person tries to exert themselves.

Unfortunately not all ischaemic heart disease presents in this way. Sometimes the first event is also the last. Sudden unexpected death in a young to middle-aged man is very often due to this condition. Then there is no opportunity to undertake some of the medical and preventative measures that are proving successful in this condition.

Ischaemic heart disease can also cause palpitations with changes in the rhythm of the heartbeat, and also heart failure. This latter may be as a consequence of several heart attacks, or develop slowly and silently in older patients. The diagnosis of coronary artery disease is usually made as a result of one of these clinical pictures with confirmation from an ECG, blood tests, specialist x-rays of the coronary arteries called an angiogram, or other specialist assessments. Very often the assessment of ischaemic heart disease, especially in a young person, will involve an assessment of the main risk factors as well.

Who gets it?

Atherosclerosis, the process of narrowing and hardening of the main arteries, and the development of ischaemic heart disease, are common. In England and Wales 22 per cent of all female deaths, and 30 per cent of male deaths, are due to ischaemic heart disease. In most developed countries around the world, death from disease of the coronary arteries rose substantially in the latter half of this century. This rise peaked and has fallen since the 1960s in the United States and is now falling in western Europe. The rise is still continuing in eastern Europe. An appreciation of the risk factors, changes to reduce them where possible, and better medical treatment probably lie behind these falls.

The main risk factors that determine who is likely to develop ischaemic heart disease are:

- age, the risk rising from age 40 to mid-70s then falling.
- being male.
- race (greater risk in those from South Asia).
- dietary factors:
 - eating too much and being very overweight
 - too much saturated (animal) fat
 - too little fruit and vegetables
 - not enough high-fibre grain products
 - possibly poor intake of vitamins B, C, E, and the minerals magnesium and chromium
 - not consuming certain 'protective' foods and beverages such as oily fish, small amounts of wine, certain nuts (walnuts, almonds and pecans).
- body shape with excess weight being deposited around the abdomen rather than on the hips (being an 'apple' instead of a 'pear').
- family history (coronary heart disease in a first-degree relative under the age of 55).
- cigarette smoking.
- personality type. The aggressive, striving ambitious deadline-driven 'type A' personality as it is known, is more prone than the relaxed sort who could barely care if the deadline is met or not.
- stressful situations at work and at home such as the death of a spouse.
- lack of physical exercise.
- soft water (within the UK, being in an area where the water is soft thus low in natural calcium and magnesium).
- diabetes mellitus.
- high blood cholesterol (over 5.2 mol/L).
- high blood pressure.
- an early menopause and loss of the 'protective action' of oestrogen.
- an excess level of blood-clotting factors.
- an increase in the level of the amino acid homocysteine in the blood not only recently but at any time from youth onwards.
- poor growth in the first year of life, especially if the birth weight was low.

Many of these risk factors interact. For example the level of cholesterol in the blood is in turn influenced by genetic factors, diet, smoking and exercise. Also not all these risk factors are as important as each other. A very high cholesterol, above 9.0 mmol/L, is a major risk factor, especially if combined with smoking. A slightly elevated blood pressure in a woman with no other major risk factors hardly adds to her risk of ischaemic heart disease. Once there is evidence of actual ischaemic heart disease (e.g. an actual myocardial infarction, angina when physically active or an abnormal ECG) the need for aggressive therapy with diet and drugs greatly

increases. Young patients (under the age of 40) will rarely need treatment for an elevated blood cholesterol unless it is very high or they are carrying several other major risk factors. For them simple, cheap, safe, non-toxic measures will suffice (a very healthy diet, exercise and possibly supplements of vitamin E 200+ IU per day) until they are older when the higher risk may then justify a more vigorous diet and cholesterol-lowering drugs.

What causes it?

The cause of ischaemic heart disease has been the subject of intense research both of populations and in the laboratory. This has led to the identification of the above risk factors, an understanding of their interaction, and how they lead to actual narrowing of a coronary artery. A full discussion of how these risk factors actually cause heart disease is beyond the scope of this book. What is important is to understand how some of the main risk factors work together and the potential for prevention of this major killer. Obviously there are some risk factors that cannot be changed. Age, sex and race are not under our control.

Fats and cholesterol

There is a strong connection between the amount and type of fat in the diet, and the risk of ischaemic heart disease. Historically attention has focused upon blood cholesterol. This is influenced by two factors. About one-third of the cholesterol in the blood is derived from the cholesterol that we eat. The remainder is made in the liver, and the amount made is determined by genetic and dietary factors. We use cholesterol to make all kinds of necessary body chemicals such as vitamin D, oestrogen, testosterone and for the structure of some cells. A high cholesterol level in a form that is easily deposited to make an atheromatous plaque is dangerous. This high-risk cholesterol is called LDL, and the beneficial protective form is called HDL. These cholesterol sub-fractions can be measured from a blood sample taken usually after an overnight fast.

High intakes of saturated animal fats add to the risk of heart disease probably because such a diet will increase the production of cholesterol in the LDL form by the liver and may cause other blood changes, encouraging the depositing of that cholesterol on to the inner wall of the artery. Other fats do not have this effect, such as the oleic acid found in olive oil and rape seed oil and of the polyunsaturated fatty acids derived from a variety of plant and fish oils. These oils may actually shift the balance toward the good HDL cholesterol. The degree of protection that these 'healthy oils' provide is debated, and of interest not only to the general public and doctors, but also to farmers and politicians. The majority of expert recommendations recognise a need for the 'average' consumer to

reduce their total fat intake by cutting down on saturated animal fats, maintaining a modest intake of the polyunsaturates and to making little change to the consumption of oleic acid. Arguments will continue to rage about the role that these different fats play in heart disease.

Many of the risk factors also influence this balance between the good HDL and the bad LDL cholesterol. Stopping smoking, correction of obesity and regular physical exercise may have a marked effect, reducing the total cholesterol and raising the proportion of the good type. In patients with furring up of their coronary arteries or of those arteries in the legs, meticulous attention to diet and use of drugs to lower cholesterol has been shown to reverse the process of atherosclerosis. If other relevant risk factors are tackled, then the prospects for sufferers will look better still. Do not forget that the type of advice given to someone who has had a heart attack and has a high blood cholesterol level may be quite different to that given to a healthy middle-aged woman or man with low to average risk factors.

Broadly speaking the recommendations for healthy eating take into account the main dietary risk factors for ischaemic heart disease. Their implementation will hopefully lead to the prevention of heart disease in the general population who have yet to have a heart attack. This is termed primary prevention. Our recommendations for The Very Nutritious Diet on page 437 are appropriate for the majority of those who wish to delay the development of ischaemic heart disease. We say 'delay' rather than 'prevent' as this problem may be inevitable for many. Remember age is a major risk factor and for those aged 80 years and more, a heart attack could be viewed as a relatively attractive way of ending one's days.

It is now recognised that increased levels of homocysteine are implicated in the risk of heart disease. Homocysteine is a sulphur-containing amino acid produced from the breakdown of another amino acid called methionine. Homocysteine levels in the body rise if there is a relative deficiency of folic acid and to a lesser degree, vitamins B6 and B12. An elevated level of this amino acid increases the risk of atherosclerosis, where the arteries become blocked, leading to both heart attacks and also strokes. Elevated homocysteine levels are also linked to raised levels of LDL cholesterol which causes blocked arteries. A diet rich in folic acid, from green leafy vegetables and fortified cereals, is recommended, together with a reduced intake of saturated fats from meat and full fat dairy products.

Some other dietary factors have also been shown to protect against heart disease:

- *Garlic* The active ingredient of which is allicin, and which gives it its characteristic smell, has been demonstrated to reduce blood cholesterol, lower blood pressure and have a positive effect on blood clotting

which are all risk factors in heart disease. Garlic can be incorporated into the daily diet, but for some the taste can be overpowering, so it is more convenient and pleasant to take it in supplement form.

- *Phytoestrogens* It was discovered that soy protein lowers cholesterol levels almost by accident. In the late 1960's researchers set out to find out whether soy could be a palatable alternative protein to meat, and in doing so they noticed a marked reduction in cholesterol levels in the soya consumers. Almost a decade later soya was once again put under the microscope by Dr Sirtori at the University of Milan. He discovered that soy protein lowered cholesterol levels by an average of 14 per cent within two weeks, and by 21 per cent at the end of the three weeks. Since that time, much more research has been undertaken to look at the effects of soya on cholesterol levels. An analysis of 40 published studies was undertaken by Dr Kenneth Carrol at the University of Western Ontario. His conclusion was that 34 of the studies did produce a drop in LDL cholesterol levels in particular, by 15 per cent or more. Other more recent studies have shown that as well as reducing the level of LDL, soya has been successful in raising levels of HDL, the desirable cholesterol. Even genetically raised cholesterol levels have been seen to drop by 26 per cent in a four week Italian study, published in 1991.

Another interesting study, conducted by Dr John Eden from Sydney, Australia, showed that menopausal women on Novogen Red Clover supplements, containing 40 mg of isoflavones per tablet, showed an 18 per cent increase, on average, in HDL cholesterol. Furthermore, trials using Rimostil, Novogen's newest isoflavone dietary supplement showed a significant improvement in the lipid profile in healthy post-menopausal women. HDL cholesterol levels increased by up to 28 per cent while apolipoprotein B decreased by 10 per cent after six months. The increase in HDL cholesterol potentially represents an approximate 40 per cent reduction in the risk of cardiovascular death in women.

A recent study by Professor Kenneth Setchell, reported at the 3rd International Symposium on the Role of Soy in Preventing and Treating Chronic Disease in Washington DC confirmed that it is possible to raise HDL, the good cholesterol, whilst lowering LDL, the bad cholesterol. His twelve week study, on 43 post-menopausal women consuming a soy rich diet, containing 60-70 mg of total isoflavines each day also highlighted the anti-oxidant effects of soya.

Furthermore, on October 20th 1999, the US Food and Drug Administration in the USA approved a health claim for soy protein and its role in the reduced risk of coronary heart disease. This effectively means that food products which contain a minimum of 6.25 grams of soy protein per serving will be allowed to state on the label that in

conjunction with a low fat, low cholesterol diet, the product may reduce the risk of heart disease. The health claim was developed by the FDA, which concluded, based on scientific evidence from more than 50 independent studies, that 25 grams of soy protein, included in a daily diet, low in saturated fat and cholesterol, reduces the risk of coronary heart disease.

The Italians are so convinced about the value of soy in lowering cholesterol that it is now provided free of charge by the Italian National Health Service to those with high cholesterol levels.

Cardiovascular disease is a leading cause of death in post-menopausal women, as they are no longer protected by oestrogen. They are particularly at increased risk of high cholesterol levels and heart disease. The benefits of phytoestrogens on lowering cholesterol levels and improving heart health are therefore an extremely important in medicine.

What your doctor can do

- Assess the severity of the condition. Those presenting with angina at a young age, those with severe symptoms uncontrolled by drug therapy, and others with certain risk factors need a detailed assessment often involving x-rays of the coronary arteries – a coronary angiogram.
- Treat the symptoms. Angina may be helped by the use of several types of drugs: nitrates help dilate the coronary arteries and can be given as a spray or tablets under the tongue; beta-blockers slow the heart rate and reduce the demand for oxygen and calcium antagonists also open up the coronary arteries. Many of these drugs will need to be given on a regular daily basis as well as being used for acute attacks.
- Treat a myocardial infarction or a clot. Rapid response by the doctor or emergency services with use of anti-clotting treatments, aspirin, beta-blockers and nitrate drugs has resulted in improved survival. Speed, however, is of the essence in this situation, and all middle-aged and elderly people with prolonged chest pains are suspected of having a heart attack until proven otherwise.
- Assess the main risk factors for atherosclerosis. This will involve measurement of blood pressure, tests for diabetes and measurement of a fasting blood cholesterol level. If the blood cholesterol is elevated then the need for advice about drugs and diet can be assessed. Even if the patient is not enthusiastic she will often do well to use some of the newer drugs as well as diet to lower its level.
- Prevent further myocardial infarction by use of drugs. This often involves giving aspirin which helps prevent blood clotting, beta-

blockers to slow the heart rate, ACE inhibitor drugs for those with a weakened heart, or calcium antagonists. The choice of these depends upon factors such as patient tolerance, blood pressure, diabetes and the use of other drugs.

- Prevent further myocardial infarction by lifestyle changes such as cessation of smoking, reduction in weight, changes to the diet, drugs to lower blood cholesterol, and a carefully supervised exercise regime to improve fitness.
- Consider the need for surgical correction of coronary artery narrowing. In selected patients who have had a myocardial infarction or are at risk of one, either open-heart surgery and by-passing the blockage, or the newer technique of opening up the blockage from within the artery – coronary angioplasty – can be highly successful, and be associated with an improved life expectancy. Coronary artery by-pass graft survival is very much influenced by the control of blood cholesterol and lifestyle factors.

The last 20 years has seen a substantial improvement in the outcome for those affected with ischaemic heart disease. For both the patient who suffers angina on exercising, and the patient who is recovering from their (first) myocardial infarction, there is much they can do to improve their lot and reduce the risk of more angina, another infarction and sudden death. The wise patient should regard the diagnosis of ischaemic heart disease as a signal to make some changes and regard that day as the first day of the rest of life.

What you can do

Plenty!

- Make sure that you get proper medical treatment as above! The provision of good care together with appropriate monitoring are not automatic. Expert assessment is very often needed for those with severe angina, those whose lifestyle is significantly altered as a result of a myocardial infarction, those who have had several infarctions, those with diabetes, those with a high blood cholesterol unresponsive to simple dietary measures and those with a weakened heart.
- Don't smoke. You're crazy.
- Don't be overweight. If you are, lose weight. Never mind the details of the best diet for heart disease, just get the weight off. Follow The Simple Weight-Loss Diet (see page 452).
- If your cholesterol is even slightly elevated then follow The Very Nutritious Diet (see page 437). Make sure that you achieve the following dietary goals:

- three pieces of fresh fruit daily
- two portions of green vegetables daily
- three portions of fish per week with two of these being mackerel or herring
- use mainly soya, rape seed and walnut oil. This latter is good for salad dressings
- use a polyunsaturated margarine rather than butter
- allow yourself some alcohol per day particularly red wine which appears to be particularly good for the heart. Seven units per week (about 4–5 drinks) is the optimum intake for women and twice this for men
- if you can, include garlic, onions and some nuts – walnuts, almonds and pecans – into your diet.
- If this is not effective enough then more specialised dietary advice may be needed. For example a Vegan Diet (see page 455) might appeal to some, but be too difficult for many. You could modify this and add in oily fish to make it a Tunatarian diet (see page 455). Allow yourself one portion of mackerel, herring or salmon daily. A strict vegan diet has been used as part of a highly successful non-drug treatment for severe angina.
- Include a daily serving of phytoestrogens to help reduce cholesterol levels. Phytoestrogens predominate in soya beans and soya bean products like flour, tofu and soya milk, golden linseeds and the herb red clover (tablets, or sprouted seeds).
- Regular exercise is a good idea for all. Probably it is best to get some expert advice about this. Ask your doctor, or there may be a post-myocardial infarction exercise group at the local hospital. Some sports clubs run specialised classes for heart patients.
- Nutritional supplements do have some value too:
 - Vitamin E at high dose, 600 IU per day, had been shown recently to reduce the risk of a heart attack but a more recent and large study of 4001 showed no benefit over 4.5 years. Take it but don't think this means you don't have to do anything else. Those who are taking the blood-thinning drug Warfarin will need to check with their doctor first, as vitamin E influences the effects of this drug.
 - Vitamin C as a supplement of around 1 gm per day may help lower an elevated blood cholesterol but probably only if your diet is devoid of fruit and vegetables.
 - Fish oil supplements can be helpful. High doses providing a total of at least 1 gram of Omega-3 EPA and DHA can lower heart disease risk by about 15 per cent.
 - Magnesium might be helpful. Some but not all studies have shown that very high doses help in the recovery from a heart attack. It is

perhaps most useful for those whose blood level is low as a result of diuretic (water) tablets.

- Chromium is a curious trace element. It is required in tiny quantities and it helps insulin in its action of controlling blood sugar. Supplements have been shown to help correct a diabetic tendency and improve elevated blood cholesterol levels. Low levels of the mineral are associated with coronary artery disease. A supplement of 200 mcg per day is worth considering. It will need to be taken long term.
- Multi-vitamins are worth a mention. Perhaps the simplest thing to take is a modest strength multi-vitamin with vitamin E, 200 IU, and vitamin C, 250 mg. Older patients, those with a restricted diet or those on many drugs may be the most suited to this.
- Take vitamins B12, folic acid and B6 if the level of the artery damaging amino acid homocysteine is elevated. Folic acid appears to be the most important vitamin to supplement in order to normalise homocysteine levels particularly in older people.
- Make sure that there is good control of any possible blood pressure, diabetes and any blood stickiness problem.
- Avoid stressful situations at home and at work. These very often precipitate attacks of angina or even a heart attack. Relaxation techniques are appropriate for those for whom this is a particular problem (see page 29).

Complementary Therapies

These have not come to the fore for heart disease in the way that they have in other areas. Perhaps it is because of the life-threatening nature of ischaemic heart disease that no great emphasis has been put on these complementary approaches. Any de-stressing therapies are worth considering. They should complement, not replace, conventional treatment. Aromatherapy, massage and acupuncture would fall into this category. Herbalism may prove to have much to offer. The potential of plant products to provide a degree of chemical protection from heart disease is slowly being realised. Seek expert advice from a qualified herbalist on this last point.

Kidney Stones

Urine is a chemically complicated fluid. It is obviously composed mainly of water, but dissolved in this are significant amounts of certain minerals including sodium, calcium, magnesium, potassium and phosphate. The yellow colour is due to breakdown products from blood and plant

pigments, and sometimes vitamin B2, riboflavin. There is a limit to the amount of a mineral that can be dissolved in a given volume of fluid. If urine volume is decreased, the mineral concentration increases; as a result, some of these minerals may be precipitated out as crystals which then form stones. The stones normally form in the kidney and once released they try and travel along the thin tube connecting the kidney and the bladder, the ureter. If this becomes blocked or goes into spasm, then pain results. Renal colic, as it is known, is one of the most painful conditions known in medicine, and very often patients attend hospital as an emergency with severe gripping pain in the side of the abdomen which may pass down into the groin. The site of the pain changes as the stone passes along the urethra until it eventually passes out into the bladder and hopefully through the urine to the outside world. The stone can be collected using a tea strainer. This is important as chemical analysis of the stone indicates the type of stone and the best treatment for its prevention.

What causes them?

As there are a variety of kidney stones there are a variety of possible causes. Usually there are several at work together and typically a combination of them in any one individual.

The following are all possible factors:

- Infection in the urine. This leads to a change in the urine's chemistry and under certain circumstances can lead to kidney stone formation.
- Too much calcium in the urine which is only rarely due to too much calcium in the diet. An important possibility is an excessive level of calcium in the blood because of changes in hormone chemistry. More usually there is an excessive leaking of calcium out into the urine and this is probably aggravated by a diet high in sodium, sugar and low in magnesium and essential fatty acids.
- Dehydration which is an important cause of kidney stone formation in the tropics.
- Accumulation of oxalic acid. This comes from certain foods in the diet and some people excrete excessive amounts of this acid into the urine.
- An excess of uric acid in the urine. This compound is also the cause of gout (see page 83). Again some of us pass larger than usual quantities out into the urine and because it is hard to dissolve it can easily lead to kidney stone formation.

What your doctor can do

- Treat the acute episode with strong painkillers.
- Investigate the type of stone. This involves analysis of any stones

captured, blood test and urine tests. These tests centre upon measuring the levels of the minerals and compounds previously mentioned.

- Test the urine for infection which is a significant factor in stone formation.
- Give specific recommendation, depending upon the type of stone. This may require expert assessment but some general guidelines can be given (*see below*).

What you can do

The following recommendations will apply almost no matter what the type of stone is:

- Drink plenty of fluid – at least 3 and up to 5 pints (1.75–2.75 litres) of water daily.
- Eat a diet low in sugar, salt and refined foods, and high in fruit, vegetable and wholegrain cereals. This sort of diet reduces the loss of many minerals in the urine, but more specialised dietary advice may be required.
- Supplements of magnesium, which passes out into the urine and generally has stone-inhibiting properties. This is not very effective but is very safe and may be followed on a long-term basis. The reasonable dosage is 200–300 mg per day of elemental magnesium.
- Sometimes a low calcium diet is recommended if there is continuing loss of calcium in the urine.
- Minimise your consumption of animal protein, or eliminate from your diet altogether. A high animal protein diet causes the body to excrete calcium, producing excessive calcium, phosphorous and uric acid in the kidneys and often resulting in painful kidney stones.
- Supplements of bran may inhibit the absorption of calcium from the diet and reduce the amount lost in the urine. This is not recommended if the person is at risk of developing osteoporosis.
- Supplements of evening primrose oil and fish oil, Efamol Marine, have an interesting and useful effect in recurrent kidney stone formation when these are high in calcium. They reduce the loss of calcium via the kidney, and together with the above simple dietary means, may even reduce the rate of stone formation. It is thought that they may do this by preventing the loss of calcium from bone.
- Follow a diet low in oxalate. This compound is found in a variety of foods notably tea, coffee, peanuts, chocolate, rhubarb and spinach. A reduced dietary intake may be required in some adults and children who have this type of kidney stone. Expert assessment is required before beginning this diet.
- Lose weight if you are over-weight.

- Stay active. People who are sedentary tend to accumulate high levels of calcium in the bloodstream. Exercise helps transfer calcium from the blood into the bones, where it belongs.
- Cut down on alcohol, particularly important if you have gout (see page 83).

See also: References.

Loss of Libido

In our youth, before the responsibilities of life settle on our shoulders, many of us take our libido, or appetite for sex, for granted, never dreaming that anything might influence it. However, the passionate nights of a new relationship live on in the dreams of most, but in the reality of only a few. Childbirth, sleepless nights, the stresses and strains of life and general preoccupation, all contribute to a waning sex drive.

Over the years at the WNAS we have come to realise, from dealing with thousands of women of all ages, that women regard their loss of libido as their lot. They accept that it is all part of their fading youth, even if it happens in their late twenties! They don't discuss it with others through embarrassment as they assume they are suffering alone, and it doesn't occur to them that the situation is reversible.

There are no hard and fast rules about what is a normal level of libido, and there is no such thing as a 'normal' libido. What is normal to one couple may be abnormal to another. You can only judge your libido by your own standards, and if you feel that your sexual desire has diminished, for whatever reason, you will need to seek help to restore it.

What are the causes?

Most of us have a natural interest in sex initially. That's the way we were designed. There are, however, a number of reasons why sex drive can decrease either over a period of time or suddenly following a particular incident.

Loss of libido can be due to physical or hormonal problems or mental stress and sometimes a combination of the two. Amongst the causes are:

- After childbirth many women lose interest in sex because of their rapidly changing hormone levels, their disturbed nights and the fact that Mother Nature makes a woman treat her baby as a priority rather than her husband's needs.
- Excessive weight gain, weight loss, irregular periods, hair loss or

excessive hair growth may all signify hormonal problems which can also result in a low sex libido.

- Other hormone disturbances like thyroid problems, or galactorrhea, a white milky discharge from the nipples, can cause low libido.
- Sometimes people are put off sex as intercourse becomes painful. The pain can be due to infection, vaginismus, when the vaginal muscles go into spasm, an enlarged or displaced womb or other conditions.
- Long-term illness and lack of energy.
- Psychologically distressing past experiences which still haunt you.
- Simply a lack of feeling for your partner.
- Stress, worry and depression often take their toll on sex drive. When you are mentally preoccupied with pressing problems the body naturally diverts its energy to helping you through the troubled times and sexual desire may take a back seat.

What your doctor can do

If you feel that the cause of your loss of sex drive may be due to hormonal problems or pain or discomfort, your doctor should be able to offer you some effective treatment. If there is an underlying psychological problem, or you are feeling overwhelmed with stress you will need to get some professional counselling to help overcome the problems before you can expect your libido to return. The doctor can:

- give you routine blood tests, including serum ferritin to check your iron stores.
- give you a physical examination to eliminate any underlying physical causes.
- refer you for some counselling if your relationship is under strain or if you are suffering the effects of past trauma.

What you can do

If, however, you feel that your libido has decreased for no apparent reason, particularly if the situation is worse before your period, then it is possible that you can gain some benefit by attending to your diet.

At the Women's Nutritional Advisory Service we have found that a programme of diet, exercise and nutritional supplements helps some 90 per cent of women get their sex drive back within four to six months.

The body depends on important vitamins and minerals in order to function properly. When under stress there is a significantly increased demand for essential nutrients. Because we lack education about the foods which contain these important nutrients, these increased demands may not be met.

We know, for instance, that the mineral magnesium is necessary for normal hormone function and that B vitamins and the mineral zinc are particularly important in sex hormone metabolism and maintaining your sex drive. So it stands to reason that if your diet does not provide you with a constant supply of good nutrients, the body will eventually stop functioning normally, and your sex drive may well be affected.

- Follow the instructions for The Very Nutritious Diet on page 437.
- Eat plenty of ordinary foods like bread, milk, eggs, meat, chicken, nuts, beans, dried fruit, green vegetables, and fish. Oysters long regarded for their aphrodisiac qualities, are extremely high in zinc, and are vital for sperm and male hormone production.
- It is important to avoid drinking too much alcohol as it knocks most nutrients sideways. Whilst you are trying to consume lots of good nutrients through your diet it would defeat the object to wash them away with alcohol. Alcohol may initially increase the desire but usually reduces the performance. Try to limit yourself to no more than three drinks per week.
- If you are overweight it is important to get yourself back into shape. Apart from the health benefits of being trim, your self-esteem will improve and you are likely to feel more desirable. Losing weight can help improve hormone function in women in particular.
- You will also help your sex drive on its way by taking regular physical exercise. Ideally you need to do four or five good sessions of exercise per week to the point of breathlessness. Adequate exercise helps to elevate your mood and is likely to have a positive effect on your hormones and your energy levels.
- If you lead a busy life and have children to care for it is important to take time out with your partner from time to time. There is nothing like a few days away without any interruptions to rekindle the old flame.
- Watching a video together like *The Lover's Guide* or referring to a book specially prepared to help you improve your sex life, might bring back that old familiar, tingling feeling.
- Plus, you might well speed things along by taking specific nutritional supplements. We use a specially formulated multi-vitamin and mineral preparation, Optivite, which has been shown to help influence hormone levels positively and help women with PMS, and for older women the sister product, Gynovite. Extra supplements of zinc may be useful for those with a low intake.
- St John's Wort has been shown to be helpful for the treatment of libido problems. A German study of 111 menopausal women with libido problems showed that a twelve-week course of St John's Wort restored

libido levels in 60 per cent of the women and improved 80 per cent of psychological symptoms of depression, irritability, inner tension and anxiety associated with the menopause. The daily dose used in the study was 900 mcg. It would be advisable to start with 300mcg daily and then increase the dose accordingly.

- You might like to obtain a copy of Maryon's *Zest for Life Plan*, which will enable you to find the right kind of diet for your body and to lose those extra pounds.

Flagging libido does not signal 'the beginning of the end', it is simply your body's way of telling you that all is not well. Providing there is no underlying cause, self-help measures and patience will bring back the old sparkle! Patience is essential, as these recommendations are not a magic pill, you must expect to work at it over a period of several months.

Diane's story

Diane Preston was a 32-year-old mother of two. She and her husband had enjoyed their sex life until after the birth of their second child she suddenly went completely off sex and couldn't bear to be touched.

'I felt very guilty about losing interest in sex. I'd become very moody and depressed, and was irritated by any approaches made by my husband. I didn't even want to kiss and cuddle which was so unusual for me. He used to creep up behind me and kiss the back of my neck when I was cooking or washing up, and I'd always enjoyed it. Now if I thought he was approaching I'd quickly move out of the way, and if he put his arm around me I would shrug him off.

In bed I'd curl up and pretend to be asleep before he could make a move. When I first pushed him away he looked so hurt and asked if he had done anything to upset me. I just made excuses about being tired or busy as I couldn't face telling him the truth – that I'd gone off him. It was horrible because I knew I still loved him, but I felt I was betraying him by not wanting to make love to him anymore.

Once or twice I thought I would go through with it for his sake which was disastrous as my lack of response made him feel even more rejected. He eventually asked me if I wanted to separate. I tried to convince him that it was because my body felt switched off and not because of anything he had done. He was very supportive under the circumstances and suggested that when I felt ready for sex I should make the first move as he couldn't bear any further rejection.

By chance a couple of weeks later I read about a range of

symptoms which I knew I'd been suffering from – including loss of libido, depression and sore throats. I contacted the organisation mentioned which was the WNAS. I was advised to give up smoking and caffeine, sugar and salt. I didn't think I would manage without these vital lifelines, but I was so determined to succeed. I was also prescribed supplements of Optivite, zinc, vitamin C and Normoglycaemia to help with my cravings for food premenstrually, which was also a problem. I took regular exercise as well and within a few weeks I could feel my symptoms begin to lift. My moodiness vanished and one afternoon I suddenly realised that I wanted sex again.

My first thought was how to break the news to Jeff after so many months without sex. I felt scared of being rejected too. I resorted to the corny old candlelit supper, and over a bottle of wine hinted that I was 'in the mood'. At the end of the evening I said to Jeff, 'I think I'll go to bed now', and with a twinkle in his eye, he said, 'I think I'll join you'.

That night was a great success, and a terrific boost for Jeff's flagging confidence. I've had the occasional relapse, especially if we've been out to dinner with friends and I've binged on all the baddies I'm supposed to avoid. But mostly, our sex life is great – in actual fact it's even better than before! A while ago a friend commented that Jeff and I rarely go out. Jeff told her that was because we always go to bed early. She didn't get the message, so he spelled it out 'we go to bed early, but we're awake for hours . . .'

Complementary therapies

Herbal medicine would be our first choice once nutritional deficiencies have been corrected.

See also: What's wrong with present-day diet and lifestyle?, Nutrition is the key to health, Standard references and Recommended reading.

Liver Disease

There are a large variety of conditions that affect the liver, and they are the province of the hospital-based liver specialist. Some points are worth mentioning in a book of this sort, though. More will be heard of liver problems, as time passes, especially as some types become more commonplace and there is increasing recognition that some disorders of female sex hormones and related problems are due to liver conditions.

What causes it?

- *Viral hepatitis* There are several types of these viruses, termed hepatitis A, B, C, D, or E virus. The first and last cause an acute hepatitis with a flu-like illness and jaundice in some, though not all. The middle three can produce a chronic inflammation of the liver. They are spread through contact with saliva, by sexual intercourse, or from blood to blood transmission as in intravenous drug users. Worldwide there are several hundred million people infected with these viruses.
- *Excessive amounts of alcohol* The risk appears in those drinking more than four units per day. The duration of alcohol excess is a risk factor, and there also appears to be a genetic component too.
- *Exposure to many toxins* These include oil-derived and industrial chemicals, pesticides and many different drugs including anti-cancer preparations, some antibiotics, drugs used to treat psychiatric disorders, the oral contraceptive pill (rarely) and even regular high doses of paracetamol.
- *A wide variety of infections and inflammatory conditions* These include arthritis, colitis, and Crohn's disease. One particular type develops almost only in middle-aged women, and can accompany heavy periods, skin itching, malaise, and prominent blood vessels on the chest and neck.
- *Fatty liver* A relatively mild disturbance in liver function easily develops in some people who are overweight, diabetic or drink too much. If tackled early, then this is completely reversible.

What your doctor can do

Where liver disease is suspected, specialist treatment is essential.

- *Remove the cause* Most usually this means stopping a drug and avoiding alcohol.
- *Give drugs to control the inflammation* These include steroids and powerful immune-altering drugs.
- *Correct nutritional deficiencies* Just about every nutrient can become deficient, so early recognition and treatment are important. Older women may be especially at risk, so calcium and vitamin D may need to be given to prevent osteoporosis and bone softening. The metabolism of the B vitamins is easily disturbed, plus zinc deficiency and vitamin A deficiency are all possible.
- *Consider a liver transplant* Now becoming more commonplace and with a good degree of success. For many the alternative is death.

What you can do

This is really most relevant to those with mildly disturbed liver function which may have been detected on routine blood tests, those with early liver disease or the increasing number who will be found to be carriers of hepatitis C virus which is currently estimated to be many as one million people!

- Don't drink alcohol.
- Don't be overweight.
- Follow the recommendations for The Very Nutritious Diet (see page 437). Eating little and often may reduce the metabolic load of a meal upon the liver.
- Do not take drugs unnecessarily, and avoid illicit drugs.
- Take supplements of vitamin B complex as there are a few studies that have shown small improvements in liver function within the normal population. It is possible that, as most of the B vitamins are processed by the liver, this harmless approach could help some of those with a mild disturbance in liver function.
- Other supplements, especially vitamins C, E and beta-carotene which have tissue-protecting properties, may be needed depending upon the advice of your specialist. High doses of vitamins A and D are to be avoided.

Complementary therapies

Herbalism probably holds the most promise, but you should seek the advice of a qualified herbalist as some herbs are in fact toxic to the liver.

Angela's story

Angela was a plump, pleasant, retired 60-year-old woman. For many years she had been troubled by fatigue and a general malaise. An underactive thyroid had been diagnosed, but treatment for this had not helped entirely. Further investigation revealed that she had persistently abnormal tests of liver function. Specialist investigations had not revealed the cause and she had refused the liver biopsy test that she had been offered. Blood tests showed that the level of various liver-derived enzymes were two- to five-fold the preferred values. She was a non-drinker, but a little overweight at 73 kilos, and those tests that had been performed suggested that there was a degree of fatty infiltration in the liver.

Nutritional tests had shown that a number of nutrients were moderately low including zinc, magnesium, selenium, vitamin E and some of the essential fatty acids.

She took supplements of these together with vitamin B complex,

Biotin, Choline and Inositol. She began a weight reducing diet though this only resulted in her losing one or two kilos.

After a year her liver function tests had become nearly normal and there was some improvement in her fatigue.

It was not possible to know exactly which nutritional factors contributed to the improvement in her liver function tests. It was probably a combined effect.

Mastitis

Mastitis simply means inflammation, which usually comes about when some of the milk ducts deep in the breast become blocked and in some cases infected. You may suddenly notice a red patch on the breast, which is tender to the touch, and have a headache, and/or feel weak and feverish. This can all have an extremely rapid onset, and be very dramatic, with fevers soaring to 104°F (40°C).

What causes it?

- Often the blockage occurs in the lower portion of the right breast of right-handed women, as it is more difficult to latch a baby on to the nipple with the left hand. Very often, because of the sitting position, the base of the breast fails to empty.
- An ill-fitting bra that is too tight.
- Cracked, sore nipples allow bacteria from the baby's mouth to enter the milk ducts and multiply.

What your doctor can do

- Offer painkillers to help with the pain, which is sometimes very severe, and to bring the fever down.
- Prescribe antibiotics to combat the infection, especially if the fever becomes high.

Danielle's story

Danielle is a 32-year-old who has had four miscarriages between her two successful pregnancies, and worked on a voluntary basis as a breastfeeding counsellor.

I was very keen on breastfeeding after attending National Childbirth Trust classes and got off to a very good start after the birth of our son. I had plenty of milk which let down well, but Alex didn't seem to empty my breasts properly. Consequently I became

susceptible to breast lumps – which repeatedly turned into mastitis. The first episode was very frightening as my fever went up suddenly to 104°F (40°C). I felt very disorientated and nervous. I wanted to avoid using antibiotics if at all possible and managed by using a combination of two homeopathic remedies Bella Donna and Phytolaca.

I seemed to be particularly susceptible to mastitis whilst feeding our first child as it recurred on ten or eleven occasions. I did succumb to antibiotics on one occasion as I felt too ill to manage without them. In the main I used hot water pads before feeding and a pack of frozen peas after feeding. I spent lots of time massaging my breasts and having warm baths to keep the flow of milk going. I took some vitamins and minerals, in particular vitamin E which I understood would help to prevent further episodes of mastitis. I am so glad that I managed to continue breastfeeding Alex, despite the pain. It is such a precious time, I was determined not to let anything disrupt it.'

What you can do

- Keep feeding your baby, no matter how painful it may be, as emptying your breast will help to resolve the mastitis.
- Feed your baby with its body nestled under your arm and legs tucked behind you, as it may be easier to get the baby's jaws in the proper position.
- Offer the inflamed breast to your baby first, and make sure you empty it fully.
- Use a breast pump to fully empty the breast if necessary.
- Massage the sore parts of your breast with your fingers, encouraging the milk out of the ducts.
- Have plenty of hot baths, with hot flannels pressed directly on to the breast.
- Alternatively, place packs of frozen peas on the breast to reduce the inflammation.
- Try some gentle arm movements to keep the circulation flowing in the area.
- Take plenty of rest in between feeds, you will need all your strength.
- Use a homeopathic remedy, either Lachesis or Belladonna, every few hours until the inflammation and the fever subside.
- Remember that painkillers and antibiotics are there if you need them. If the breast becomes infected, and you feel really unwell, you owe it to yourself and your baby to speed the recovery. Neither the painkillers nor the antibiotics will harm your baby, and neither will the milk from an infected breast.

Some women never experience mastitis, whilst others seem to get it repeatedly, despite taking precautions. Do persist. Your baby gets a far greater start in life by being breast-fed.

See also: Breast problems, Recommended reading (*Healthy Parents, Healthy Baby*).

The Menopause

For at least three-quarters of all women, the menopause brings with it rapid changes and unwanted symptoms which often disrupt life and result in utter misery. Frequent hot flushes during the day, and sweats at night leave them exhausted, disoriented and despondent. A dry vagina and reduced libido can wreck their sex lives, and repeated insomnia can leave a woman wondering whether life as they knew it is over.

The menopause is a transition which signals the end of a woman's monthly fertility cycle, and in order to have a smooth passage through it, our bodies need to be in really good shape.

What is the menopause?

The menopause itself is merely the day menstruation stops, which one can only usually be certain about with hindsight. Therefore many women will experience the actual menopause without really knowing at the time. Most of the symptoms experienced occur whilst in the perimenopausal stage, which means *around the time* of the menopause.

After the age of 40, the supply of eggs starts to run out, and the level of the female hormone oestrogen starts to fall. The dwindling number of eggs then mature irregularly, so that as the menopause approaches, the length of the menstrual cycles start to vary and periods become irregular.

Periods cease when eggs run out. As oestrogen levels fall, the lining of the womb loses its main source of stimulation, and periods stop altogether. The majority of women will have their last natural period somewhere between the ages of 45 and 55, with the average standing at just over 50. In rarer cases women start an early menopause in their late 20s or early 30s, and sometimes women go on having periods until they are in their late 50s. However, statistics do show that smokers may reach the menopause as much as two years earlier than non-smokers.

What are the symptoms?

From a survey of 500 women who had recently gone through their menopause, we at the WNAS discovered that there were three main

groups of symptoms that occur at the time of the menopause, but only one group is directly related to the falling oestrogen levels. The other two groups of symptoms that we discovered, were more to do with dietary and lifestyle inadequacies.

Oestrogen withdrawal symptoms

These are predominantly:

- hot flushes
- night sweats
- vaginal dryness
- loss of libido
- urinary symptoms
- skin changes
- difficulties with intercourse

Physical symptoms

These consisted primarily of:

- aches and pains
- irritable bowel syndrome
- constipation
- fatigue
- migraines and headaches

Mental symptoms

These included:

- anxiety
- panic attacks
- palpitations
- irritability
- aggressive feelings
- mood swings
- depression and confusion

All of the symptoms listed are commonly experienced. What is not widely appreciated however, is that HRT is aiming only at the oestrogen withdrawal group, and not necessarily the physical and the mental groups of symptoms.

We know from research conducted on several groups of younger women suffering with premenstrual syndrome that minerals like magnesium, iron and the B vitamins are often in short supply, which affects the efficiency of brain chemistry and hormone function. The menopause is a great transition, which places extra demands on brain chemistry. If the body is not 'firing on all cylinders' because of previous dietary inadequacies and lack of education, a bumpy ride can be expected. It is thought that approximately 75 per cent of women in the western world will experience adverse symptoms at the time of the menopause.

What your doctor can do

The favoured treatment for menopausal women is Hormone Replacement Therapy, HRT. Oestrogen therapy was initially pioneered in

the USA. Oestrogens alone were used for the first twenty years, but then it was discovered that women with an intact uterus had a greatly increased risk of cancer of the lining of the uterus, and so progesterone was added to make it safer.

Guiding principles on the use of HRT

These are intended to help the patient (and doctor) understand the appropriateness of HRT for her particular situation.

- There are many different forms of HRT. Tablets, of varying type, patches, gels, and implant preparations all come with a choice of dose and can be provided in different combinations of oestrogen and progesterone. All are effective at controlling immediate symptoms and most are proven to have beneficial effects upon bone health. The wide choice means that there is considerable flexibility and gives the doctor many alternatives if one preparation is not well tolerated. Women with a uterus will need to take progesterone for twelve to fourteen days per month to prevent endometrial overgrowth and cancer developing. This applies also to those women receiving vaginal oestrogen preparations for more than three months.
- HRT brings both short- and long-term benefits. In addition to the control of menopausal symptoms HRT reduces the risk of osteoporotic fracture and *may* bring other benefits including a reduction in the risk of heart disease and dementia, but this is by no means certain at present. Large detailed trials to answer these and other questions are underway in Europe and the USA. The results will not be available for nearly ten years.
- HRT use can bring both short- and long-term health problems. Common initial side effects include breast tenderness, aggravation of pre-existing breast disease, mood changes and in those receiving cyclical progesterone, cyclical mood changes akin to premenstrual syndrome, headaches and irregular vaginal bleeding. These problems are of course similar to those experienced with the oral contraceptive pill. They may become tolerable, diminish with time or can be controlled by a change in dose or preparation. The longer term side-effects are more serious and include an increase in the risk of breast cancer and thrombosis.
- To some degree the increased risks of breast cancer and thrombosis are predictable. The increase in breast cancer is between ten and twenty per cent after ten years continuous use with very little increase in the first five years. Furthermore five years after ceasing treatment the risk returns to that of non-users. The increased risk of thrombosis may become apparent after just a few weeks of HRT use and results in the risk of one in 10,000 per year for a non-HRT user rising to three in 10,000. Occasionally this may lead to blood clot on the lung which in

one to two per cent of cases can be fatal. The risk of thrombosis rises significantly with the higher dose preparations, particularly if the woman is overweight, a smoker or has had a thrombosis in the past.

- Some conditions call for additional attention on the part of the doctor. There are a number of situations where HRT is not prohibited but special care needs to be taken either because there is an increased risk of thrombosis developing, or because the condition may worsen as a result of HRT. In the former category are: being very overweight (Body Mass Index greater than 30) or being immobilised, especially if the woman is also a smoker, and following major trauma or surgery. In the latter category are a wide variety of conditions including: uterine fibroids, mild chronic liver disease (blood tests to monitor liver function every eight to twelve weeks), gallstones, otosclerosis (hormone dependent hearing loss), migraine, multiple sclerosis, epilepsy, diabetes, high blood pressure, kidney disease, uterine fibroids, the rare metabolic condition porphyria, and tetany.
- For the control of menopausal symptoms most women will need treatment for between one and five years. The majority of patients will be between 40 and mid-50s with younger patients typically having more severe symptoms often requiring a higher dose of HRT and for longer. Stopping treatment after a maximum of five years will minimise the increase in the risk of breast cancer and thrombosis and by this time many symptoms will have lessened. Younger patients with a premature menopause, before the age of 45 years, may well need or wish to take it for longer. However as a rule it would seem inappropriate to continue HRT past the age of 55 years unless a woman is known to have or are at high risk of developing osteoporosis, and even then, there now exists alternative approaches as you will see from page 345.
- For the treatment of established osteoporosis and its prevention the treatment will be needed for between five and ten years. The majority of such patients will be elderly and five years is probably the minimum time period needed to achieve a reasonable effect. Going beyond ten years may either not be necessary or may add to the risk of breast cancer and thrombosis with little additional benefit in terms of bone protection.
- The benefits of HRT are not unique to HRT. There are alternatives to HRT of a pharmaceutical and non-pharmaceutical nature. Hot flushes can be helped by a low dose of the drug Clonidine, by relaxation techniques and dietary change including the consumption of certain foods or preparations containing phytoestrogens which in part perform some of the functions of HRT, see page 480. Osteoporosis can be treated by other drugs, calcium with additional vitamin D for the elderly and helped by regular exercise. Furthermore regular exercise and a healthy diet will almost certainly protect against both osteoporosis and heart

disease to at least the same extent as HRT and bring with it many additional benefits, see pages 233 and 345. If a doctor is prescribing HRT for its long-term preventative benefits then he or she should also be advising about other ways to minimise the development of both osteoporosis and heart disease.

- Certain situations call for the immediate cessation of HRT. This is needed if there is:
 - a thrombosis, a blood clot, in any part of the body: leg, lung, brain or heart or if there is an injury which is likely to result in a thrombosis.
 - severe migraine headaches developing for the first time or any other frequent or severe headaches especially if they are associated with visual disturbance or the development of symptoms such as numbness or tingling in a part of the body.
 - the development of jaundice, high blood pressure or pregnancy. These are all other reasons to stop HRT without delay.
 - HRT should also be stopped six weeks before any operation or if there is prolonged immobilisation.
- Abrupt cessation of HRT can cause a marked return in symptoms. Research shows that women who come off HRT suddenly often experience severe hot flushing. The return of hot flushes and night sweats when HRT is stopped abruptly is not 'proof' of oestrogen deficiency but merely testimony to the intolerance of many women's bodies to sudden and substantial hormonal change. Gradually reducing the dose may produce fewer symptoms and may need to be done for many women coming off HRT in their early to mid-50s. Some of these women may return to HRT a decade or two later for the treatment/prevention of their osteoporosis.
- The duration of HRT treatment often cannot be decided until after an initial test phase. Only after several months of trying HRT can the full balance between risks and benefits for the individual be made especially if it has been necessary to adjust the dose or type of HRT to control initial, adverse symptoms. This means that each woman should be advised when initially commencing on treatment that they are not necessarily committing themselves to long-term treatment but actually undertaking a therapeutic trial. At the end of the first few months or year of treatment there can then be a more detailed assessment of the appropriateness of continuing with HRT in the medium to long term.

Assessing the appropriateness of HRT

Having absorbed these guiding principles we can now make some kind of a planned approach to assessing the appropriateness of HRT for an individual woman. A lot of the following factors will need to be consid-

ered, albeit briefly, but in the logical sequence that is presented here. Each case should be considered as a therapeutic trial unique to that individual. Assessing these factors carefully and explaining them to the patient will often take more time than a typical short consultation with the family doctor will allow.

The initial assessment will include blood tests to diagnose the menopause. The tests at the GP's disposal, to confirm a diagnosis of 'menopausal' are as follows:

- FSH and LH. These are tests of pituitary function and will be elevated as the pituitary gland works hard to try and stimulate the failing ovary. In perimenopausal women these levels rise before the oestrogen level falls.
- Oestradiol. This is the main type of oestrogen in the body and levels will fall at the time of the menopause. A low normal level, in conjunction with elevations of FSH/LH are found in perimenopausal women.
- Other tests. Most commonly these will include blood tests of thyroid function and anaemia especially if some other health problem is also suspected. Other tests will rarely be needed.

Should the woman be given an initial trial of HRT? This should be considered:

- If there are symptoms of *hot flushes, night sweats* or *vaginal dryness*. These are archetypal symptoms of oestrogen withdrawal. Other symptoms such as depression, low libido and muscular aches and pains have many other causes and by themselves are not a good guide as to the suitability of HRT.
- If there is a high risk of developing osteoporosis especially if combined with an early menopause.
- If there are no major contraindications to HRT or if there is a relative contraindication to HRT, but the client is willing to accept the associated increased risks.
- If the individual is psychologically prepared to take HRT. This means that she has not been scared off by stories that she has heard or read and is willing to accept the use of a physiological replacement initially for a short-term trial. Importantly there should be no pressure for her to agree to take it on a long-term basis until she has seen how she gets on with it in the short term.

Major contraindications to HRT

There are some women who should not even attempt to try HRT. This is because they have a pre-existing condition that is likely to be worsened by HRT or they have a history of marked intolerance of oestrogen preparations.

The contraindications listed below are taken from standard texts including the prescribing handbook *MIMS* (The Monthly Index of Medical Specialities) which sits at the elbow of most consulting doctors, and from the relevant reference texts.

- **Pre-existing breast cancer.** The growth of breast cancer is usually hormone dependent especially in young women, and HRT would conflict with treatment for the cancer, especially with the oestrogen modulating drug Tamoxifen.
- **Pre-existing uterine, ovarian, or cervical cancer.** Again these are hormone-dependant cancers and HRT should not be given.
- **Undiagnosed vaginal bleeding.** This could be due to cancer of the genital tract. Heavy or erratic bleeding or bleeding after intercourse should arouse suspicion.
- **Endometriosis.** When the endometrial lining has extended outside the womb there is usually considerable abdominal pain with menstruation and typically a day before the onset of bleeding. Abdominal pain and swelling are likely to worsen with HRT.
- **Previous thrombosis when taking oestrogen.** Oestrogen causes an increase in blood clotting factors which in a few individuals will lead to a blood clot developing in a vein, a venous thrombosis, which will cause a swollen and usually painful leg. However sometimes this process is silent until a clot breaks off and travels to the lung causing a pulmonary embolus. If large, this may occasionally be fatal. Smaller ones will usually cause, chest pain, shortness of breath and a cough often resulting in blood stained sputum. Multiple small pulmonary emboli, if unrecognised, can damage the lung and heart. The risk of thrombosis rises with increasing age, obesity, smoking, immobility, recent trauma or surgery, and any of several otherwise silent blood conditions that predispose to blood clotting. These may only be suspected because of a previous personal history of thrombosis especially in association with the oral contraceptive pill or HRT, or because a first degree relative has suffered a thrombosis spontaneously or when taking an oestrogen preparation. Rarely such individuals may have experienced a stroke or stroke-like episode when on the oral contraceptive pill. Sophisticated and expensive blood tests exist to detect the different forms of thrombophilia as these blood conditions are known. However they are not widely or always easily available, which is a situation that will have to change in the future.
- **Active thrombosis or embolism.** For the same reasons.
- **Severe migraine or visual disturbance when taking the oral contraceptive pill.** These symptoms could mean an impending stroke linked to increased risk of thrombosis when taking the pill.
- **Severe heart, kidney or liver disease.** HRT can aggravate the fluid retention that occurs with these conditions.

- **Some liver diseases.** These may alter the metabolism of oestrogen.
- **Pregnancy or lactation.** Not all older women have ceased menstruating because of the menopause. It is prudent to enquire whether they might become or be pregnant!
- **Likely to have an operation within the next six weeks.** An operation increases the risk of thrombosis and whenever possible HRT should not be taken during this time.

Relative contraindications to HRT

The majority of these conditions will usually have been previously diagnosed in the individual because of some prior episode of ill-health. They include:

- **Uterine fibroids** which could cause heavier bleeding as a result of HRT use.
- **Mild chronic liver disease.** Further monitoring of liver function tests will be needed every eight to twelve weeks.
- **Gallstones.**
- **Porphyria**, a rare metabolic condition that alters liver metabolism.
- **Otosclerosis** – deafness in pregnancy or in association with the oral contraceptive pill.
- **Hypertension.** Rarely this may be made worse by HRT but is usually unaffected.
- **Migraine** which again may be made worse by HRT.
- **Epilepsy** might be made worse by HRT and some anti-epileptic drugs will increase the required HRT dose.
- **Multiple sclerosis** may very rarely be worsened by HRT.
- **Diabetes.** There may be minor changes in blood sugar control following treatment with HRT.
- **Renal impairment**, as HRT might aggravate fluid retention
- **Premenstrual syndrome** either currently or in the past may mean that the woman will be prone to cyclical mood changes when taking HRT. This is quite variable and not easily predictable, but it is thought that one third of women who try HRT can expect to experience premenstrual symptoms.
- **Breast cysts or pain** may worsen with HRT. All such women should be examined before commencing treatment and if the diagnosis is in doubt be sent for mammography.
- **A strong family history of breast cancer.** The increased risk of breast cancer developing following the use of HRT is small, especially when it is only taken for a short period of time, but not insignificant. In women with a strong family history of this cancer careful and sympathetic discussion is often required, and alternative approaches may well be preferred.

Most of these points can be quickly assessed by your own family doctor. The most tricky one is when there is a personal or family history of thrombosis, as at present there are no clear guidelines as to how to assess the risk in individual cases.

Medical survey on the menopause

A recent survey of a thousand general practitioners was carried out in an attempt to assess the help that is currently available for menopausal women. The questions focused on HRT, the frequency of use, side effects experienced by patients and their knowledge and incorporation of alternative treatments for the menopause. The survey revealed some interesting and surprising statistics, which are detailed below.

Analysis of the survey revealed that 36 per cent of all women who seek help for the menopause are prescribed HRT. However, 54 per cent of those recommended to take it actually do, and 46 per cent don't, which would indicate a degree of dissatisfaction with the treatment! In fact, according to GPs, 21 per cent of women taking HRT actually come off of it within a year of commencing, so overall, less than 50 per cent of the women who were advised to take HRT are still taking it.

We were particularly surprised that doctors were divided over issues like inactive breast cancer and family history of thrombosis. We were also amazed that so few were concerned about prescribing HRT to women with high blood pressure.

Clearly there is a lack of education about the effectiveness of HRT in preventing heart disease and alzheimers. Whilst there is some evidence to support the theory that HRT helps to prevent heart disease, the jury is still out. In fact, at the 3rd International Symposium on the Role of Soy in Preventing and Treating Chronic Disease (1999), it was broadly agreed that the research on phytoestrogens preventing heart disease was much stronger than the research on HRT and heart disease. As for alzheimers, the research is yet young. There was also a great variation in the number of doctors who use HRT to treat fatigue and depression.

When questioned as to the side effects attributable to prescribing HRT:

- 85 per cent of patients suffered with breast tenderness.
- 72 per cent put on unwanted weight.
- 39 per cent experienced mood swings.
- 21 per cent of patients were affected by depression.

On a more serious note, HRT caused a rise in blood pressure in 17 per cent, six per cent lost hair from their head and six per cent had thrombosis.

It was interesting and enlightening to learn that the doctors who participated in the survey were knowledgeable of, and even incorporated

natural treatments for the menopause. The more conventional treatments like Dixarit, a drug to alleviate hot flushes appeared to be as little as 27 per cent effective. Advising their patients to reduce caffeine, alcohol and smoking were nigh on as effective for reducing flushes.

It was quite amazing to see that as many as 17 per cent of doctors were recommending a soya rich diet, 18 per cent advised taking a phytoestrogen rich diet, which compared favourably with prescribing vitamin supplements and referral for psychotherapy, recommended by only eight per cent of doctors.

Since we carried out our first GP survey in 1994, it would be fair to say that knowledge of complementary therapies for treating menopausal symptoms is increasing, perhaps not significantly, but at least the trend is moving in the right direction.

Phytoestrogens and the menopause

Much more exciting research has since been conducted on the effects of phytoestrogens to the point where it has been discovered that they have certain similarities to the 'designer hormones' – the Selective Oestrogen Receptor Modulators (SERMS). This group of hormones are being developed to retain their beneficial effects on the cardiovascular system and the skeleton, without having cancer promoting effects on the breasts or the lining of the womb. However, unlike phytoestrogens which help to relieve hot flushes, the down side with the SERMS is that they seem to *cause* hot flushes.

A study on phytoestrogens and the menopause, conducted by researchers at the University of South Manchester, England, also found positive results. They fed menopausal women a 60 gram soya protein drink daily for two months, and were able to reduce hot flushes by half, and the remaining flushes were 30 per cent less severe. Another soya protein experiment was set up by Professor Burke, of the department of public health science at the Bowman Gray School of Medicine, Winston-Salem, North Carolina. He fed 43 American women, aged between 45 and 55, 20 grams of soya protein, sprinkled over their morning cereal, for six weeks. They found that symptoms significantly reduced, although they did not entirely disappear. As a result they have a larger ongoing study, who are being given much higher doses of soy.

In 1998 Dr Albertuzzi confirmed the value of soya protein in helping to control hot flushes. His study of 104 post-menopausal women, who took either 72 mg of isoflavones or a placebo, each day for twelve weeks, showed that soy was significantly superior in reducing the number of hot flushes experienced. Women taking soy decreased their hot flushes by 26 per cent after three weeks, 33 per cent by week four, and 45 per cent by week twelve, compared with a 30 per cent reduction in the hot flushes of women in the placebo group.

A few years ago, an Australian study of menopausal women consuming bread rich in both soya and linseeds, showed a 40 per cent reduction in hot flushes and a small increase in bone mass. This preliminary research indicates that these phytoestrogens may well be as powerful as HRT, not just in their effect on vaginal tissue, but also in protecting us against both osteoporosis and heart disease.

There is a whole array of phytoestrogenic foods on the market claiming to alleviate menopausal symptoms while reducing the risk of breast cancer and heart disease. However we need to be discerning, as many foods may well contain phytoestrogen rich ingredients in principle, but it is very difficult to standardise food, as became apparent to me after becoming familiar with the results of a survey conducted by Novogen in Australia. They analysed a long list of common phytoestrogen-rich foods including soya products, chickpeas, lentils, and found a terrific variation of phytoestrogen content. Amazingly some of the tested foods contained very little phytoestrogens indeed.

The phytoestrogen content of food may vary considerably depending on the crop, the time of year it was grown, the climate, and a number of environmental factors. Foods that have been put through scientific analysis will state the phytoestrogen content on the label, so once again it is down to label reading.

It seems that Mother Nature has provided us with foods that allow us to top up on our oestrogen levels, at the time of the menopause and beyond, quite naturally, without having to resort to Hormone Replacement Therapy. The only problem I have encountered, it that women are generally unaware of which foods contain phytoestrogens, and as a result our intake in western countries are negligible, compared to Asian women who consume between 50–100 grams of phytoestrogen or phytoestrogen-containing food per day.

So far research does tell us about many of the foods that contain plant oestrogens and other important phytochemicals. Although we are beginning to know about the precise quantities of isoflavones and lignans in some of the foods, we have yet to determine the precise values of other foods. Whilst it seemed to be the general consensus of opinion of researchers presenting new data at the 3rd International Symposium on The Role of Soy in Preventing and Treating Chronic Disease, that soya in our diet is only likely to decrease hot flushes by 30 per cent, our experience is that when combined with other aspects of the WNAS menopause programme, it is a valuable part of a highly effective, natural alternative to taking HRT, which aids the control of hot flushes in a relatively short time period.

What you can do

There is a great deal that you can do to ensure a smooth passage through the menopause, and to prevent heart disease and the bone-thinning disease, osteoporosis, without taking HRT. The recommendations that we use at the WNAS are all based on published scientific papers.

If you are aiming to overcome severe and debilitating symptoms at the time of the menopause it is likely, in our experience, that you will need to consume at least 100 mg of isoflavones per day initially, combined with the other important aspects of the WNAS programme. This will enable you to emulate the Japanese in their consumption of daily phytoestrogens, but in a western way.

- A group of Australian workers published a paper in the *British Medical Journal*, which showed that a group of women going through the menopause, regularly consuming foods and drinks that contained naturally occurring oestrogens, were able to bring about the same positive changes in the lining of the vagina, as women taking HRT.
- Practising relaxation techniques each day can reduce your hot flushes by as much as 60 per cent.
- Taking supplements of calcium, EFAs and marine fish oils, can reduce the amount of calcium lost through the urine, increase the amount of calcium absorbed through the gut wall, and improve the calcium balance in the bones.
- Taking regular low-impact aerobic exercise, like brisk walking, skipping, racquet sports or working out, is good protection against both heart disease and osteoporosis.

Dietary recommendations

It is well established that Japanese women, who already eat a diet particularly rich in plant oestrogen, have far fewer problems at the time of the menopause, demonstrating once again that there is a lot we can do for ourselves.

1. Include the plant oestrogens in your diet, particularly soya products including soya milk with cereals or mixed with fruit as a fruit shake, tofu & silken tofu blended with fruit, Linusit Gold, golden linseeds, chick peas, lentils, mung beans, alfalfa, sunflower, pumpkin and sesame seeds and green and yellow vegetables. Refer to *The Phyto Factor* by Maryon Stewart for further food lists, recipes and details of how to use these products (see Recommended reading, page 490).
2. Apart from a phytoestrogen-rich breakfast, have a 'fix' later in the day, either as a snack or as a dessert. Try a phyto fruit shake, or a fruit whip made with silken tofu and soft fruit in the blender.
3. Reduce your intake of sugar and junk foods. This includes sugar added to tea and coffee, and that in sweets, cakes, biscuits, chocolate,

- jam, puddings, marmalades, soft drinks containing phosphates, ice cream and honey. Consumption of these may impede the uptake of essential nutrients and may cause water retention.
4. Reduce your intake of salt, both added to cooking and at the table. Also avoid salted foods like kippers and bacon. Salt causes fluid retention and induces calcium loss from the body in the urine. Use potassium-rich salt substitutes such as garlic, onion, kelp powder, fresh herbs, sesame powder or other mild spices.
 5. Over-spicy food, hot drinks and alcohol can aggravate flushes. Let your hot drinks cool down and keep alcohol to a minimum whilst going through the menopause. Alcohol tends to knock most nutrients sideways anyway, and this is definitely a time to conserve essential nutrients.
 6. Eat vegetables and salads daily. Three portions of vegetables and a salad should be eaten every day, as they contain plenty of essential nutrients. Where possible use organic, or grow your own.
 7. Eat plenty of fresh fruit, at least two servings each day, as these are good sources of nutrients.
 8. Concentrate on consuming foods that are rich in important nutrients, especially magnesium, calcium, B vitamins, essential fatty acids and zinc. You will need to refer to the section called The Nutritional Content of Foods that begins on page 483.
 9. Limit your consumption of red meat to one or two portions each week. Substitute meat with fish, poultry, peas, beans and nuts. You may like to refer to the Vegetarian, or Tunatarian diets on pages 455, when you learn that meat eaters have a lower bone density than their vegetarian counterparts.
 10. Dairy products, such as milk and cheese, are excellent sources of calcium. Use low-fat versions if you need to watch your weight. Aim to drink 600ml (1 pint) of milk per day, or other foods rich in calcium, see page 487.
 11. Keep your consumption of animal fat down to 30 per cent of your total calorie intake. For most, this means reducing fat intake by at least one-quarter. Instead use cold-pressed oils such as safflower, sunflower, olive, sesame, rapeseed etc, and use soft polyunsaturated spreads instead of hard margarines or lard.
 12. Drink plenty of liquids, preferably the equivalent of six glasses of water daily. Use decaffeinated drinks, or better still alternatives, see page 6, and keep carbonated drinks down to a minimum.
 13. If you smoke, try to cut down gradually, or stop completely, as smoking can aggravate some symptoms, especially hot flushes and night sweats. Stopping smoking at the time of the menopause can reduce your risk of hip fracture by as much as 40 per cent.
 14. Keep a supply of nutritious snacks to eat in-between meals if you get peckish. Nuts, raisins and fresh or dried fruit are fine.

Other useful self-help tips

- Aim to exercise for at least half an hour five times per week – you need to do weight-bearing exercise that is also aerobic. The benefits are a healthy heart, strong bones and a feeling of well-being (see page 32).
- Try to spend 15–20 minutes relaxing each day to keep the stress levels down and the flushes at bay. Research shows that these simple measures will reduce hot flushes by as much as 60 per cent. See also page 29.
- Wear several layers of thin comfortable clothing during the day so that you can peel them off should the need arise.
- Use lightweight layers of bedclothes so that you can adjust them according to temperature. Wear cotton nightclothes instead of man-made fibres.
- Carry some cool wipes in your handbag until the flushes have abated.
- Take extra care of your hair, skin and nails. Use rich hair conditioner, good moisturising lotions for your skin and nail strengtheners.
- Do toning pelvic-floor exercises once or twice a day by repeatedly holding in the vaginal muscles to the count of ten and releasing slowly.

The value of supplements

At the time of the menopause we often have to put back nutrients that time and nature have taken out. In addition we aim to restore oestrogen levels, through diet and standardised supplements initially, in order to alleviate the hot flushes and night sweats as soon as possible. At the WNAS we successfully use a selection of scientifically based supplements which individually address the variety of common symptoms. The following chart will allow you to assess which supplements you should be trying according to your current symptoms. We usually aim at sorting out the short-term oestrogen withdrawal symptoms initially, and once these are under control move on to address the long-term business of maintaining a healthy heart and strong bones.

Phytoestrogen-rich supplement

A recent US study has validated the effectiveness and safety of Novogen red clover. The study, conducted by Tufts University School of Medicine and New York University School of Medicine, showed that menopausal women who took a single tablet of redclover daily experienced a reduction in the intensity and number of hot flushes. Hot flushes were reduced by 56 per cent (from 8.1 per day to 3.6 per day) after eight weeks. Intensity of hot flushes also decreased by 56 per cent, and night sweats decreased in intensity by 52 per cent. Hot flushes and night sweats are the two most common symptoms in menopausal women. The other good news was that red clover did not cause thickening of the endometrial lining, which is a complication commonly associated with HRT. The women in the study also reported no side effects or weight gain from taking the red clover.

We have now been using Novogen red clover as part of the WNAS menopause programme for the last two years. Within the first few months of experimenting with the product, as we did by giving samples to our patients to try, we discovered that the hot flushes and the night sweats were being controlled much more quickly. It used to take us at least three or four months to control hot flushes prior to using the red clover supplement. Patients began returning for their follow-up appointment, just one month after their initial consultation, delighted that both their flushes and night sweats were far milder. This was excellent news to the WNAS team, as well as the patients themselves who are more than just slightly keen to be restored to normality as soon as possible.

Matching Nutritional Supplements to Symptom

Problem	Type of supplement	Daily dosage	Available from
Hot flushes and nightsweats	*Novogen red clover	1 x 45 mg tablet	WNAS Mail Order Service
	*Natural vitamin E	200–400 IU	Chemists, health-food shops and WNAS Mail Order Service
	*Panax ginseng	1–2 x 600 mg capsules	Chemists, health-food shops and WNAS Mail Order Service
Anxiety, irritability, mood swings, depression	*Gynovite	2–4 tablets	Health-food shops and WNAS Mail Order Service
Eczema, dry skin	*Efamol	1 x 10000 mg capsules	Chemists and WNAS Mail Order Service
Heavy periods	*Gynovite	Dose as above	WNAS Mail Order Service
	Iron-ferrous sulphate	1 x 200 mg tablet with fruit juice	Chemists
Painful periods	*Magnesium amino acid chelate	2–4 x 150 mg tablets	Health-food shops and WNAS Mail Order Service
Breast tenderness	*Efamol/Efamast	As above	Chemists, health-food shops and WNAS Mail Order Service
	Linusit Gold	2 tablespoons	Health-food shops
Osteoporosis	*Efacal	4 capsules	Chemists, health-food shops and WNAS Mail Order Service
	Calcium carbonate, gluconate or citrate	1000 mg elemental calcium	Chemists and health-food shops
	*Magnesium amino acid chelate 1	50–600 mg elemental magnesium	Health-food shops and WNAS Mail Order Service

*Available by mail order through WNAS Mail Order Service, PO Box 268, Lewes, East Sussex, BN7 1QN or visit our website on <http://www.wnas.org.uk>

Complementary therapies

As well as dealing with symptoms on a nutritional level it is important to address the underlying problems that may well have accumulated over the years. Not meeting your nutritional needs at various stages in life, being pregnant and breast-feeding, coping with stressful situations and perhaps suffering premenstrual symptoms before your menopause, may well have left their mark. Your body may need some extra help in order to recover at the time of the menopause, which can be provided by some of the complementary therapies.

Acupuncture and acupressure

Many problems that occur at the time of the menopause, like hot flushes, night sweats, insomnia, depression, aches and pains, mood swings and headaches, may well respond to acupuncture or acupressure. Acupuncture will need to be administered by a qualified practitioner, and acupressure can be a useful self-help tool. The Council for Acupuncture lists all qualified members (see page 513).

Herbal medicine

The indication for herbal medicine at the time of the menopause is quite strong. Trials have demonstrated that herbs can help to reduce hot flushes, reverse the ageing process of the cells in the lining of the vagina, and speed up the healing process of broken bones. There are herbal preparations that can be purchased in the health-food shop like ginseng, dong quai and agnus castus, with which you can help yourself. However, a qualified herbal practitioner may prescribe a combination of many different herbs. You may even be given herbs that are to be taken at different times of the day, or even different times of the month depending on whether you are perimenopausal or postmenopausal.

Homeopathy

Sepia and sulphur are just two of the many remedies that may be indicated for hot flushes and night sweats. There is also a wide choice of remedies for poor memory, depression, insomnia, anxiety attacks, irritability, headaches and confusion. To find a qualified practitioner in your area contact The British Homeopathic Association, whose address is listed on page 513. *The Women's Guide to Homeopathy* is an excellent reference book, and details can be found on page 491.

Cranial osteopathy

It is certainly worth paying a visit to a qualified cranial osteopath at the time of the menopause. Not only do they provide help for long-standing back, head and neck problems, but they have been shown to reduce hot flushes. The treatment for women suffering with menopausal symptoms

is often aimed at improving pituitary function, the gland found at the base of the brain, and balancing the function of the adrenal glands and the pelvis.

The European School of Osteopathy have a directory of qualified practitioners. You will find their address on page 515.

Creative visualisation

This is a wonderfully simple and most enjoyable method of relaxation, that requires little or no training. It is perfect for those who haven't had the time to learn how to practice yoga or meditation. See page 31 for details.

Shiatsu

Shiatsu is a form of ancient Japanese massage developed in the late nineteenth century, which translates as 'finger pressure'. Although influenced by western medicine, it has its basis in Traditional Chinese Medicine and follows the same principles of energy and meridians as acupressure. The practitioner uses fingers, thumbs, elbows, knees and even feet in a combination of massage techniques, applying pressure to key points to influence and stimulate energy flow in the body. Shiatsu has become very popular in the west, where it is practised both by trained practitioners and as a self-treatment for minor ailments. It is particularly useful for treating musculo-skeletal problems such as arthritis, stress, fatigue and circulatory problems which are often exacerbated during the menopause.

T'ai chi

T'ai chi is a Chinese movement therapy practised by Taoist monks in the thirteenth century, but its exact origins are difficult to trace. Derived from the words for 'great', 'ultimate' and 'fist', t'ai chi can be translated as 'supreme ultimate power'. This therapy was suppressed during the Cultural Revolution (1966–69), but it has since been promoted by the Chinese government as a form of preventive health care. In the West it is now one of the most popular movement therapies of all ages. The key principles of t'ai chi aim to ensure the smooth flow of 'life energy' through the body's meridians. It is recommended therapy for conditions of old age, improving vitality, enhancing mental and physical control and generally promoting optimum health.

Nicola's story

Nicola was a 46-year-old mother of two and part-time conference organiser. She read about the WNAS in a national newspaper and contacted us as she was looking for an alternative to HRT because of the horrendous side effects she had had from it.

'At the age of 44, a blood test showed early menopause. I tried HRT but within days was experiencing panic attacks, depression, feeling totally out of control and suicidal. Within one week I had stopped the HRT and it took me several months to regain my composure. Apart from this, I was suffering from hot and cold flushes, night sweats, headaches, abdominal bloating, constipation, general aches and pains, and continued depression.

At my initial clinic consultation with Maryon Stewart I was given recommendations with regard to my diet and supplements to take. I began the nutritional diet by avoiding wheat and bran, changing ordinary tea to the Rooibosch tea and adding things like oily fish and phytoestrogen-rich foods and herbs. I was advised to take various supplements to boost my vitamin and mineral levels and help reduce my symptoms.

One month later I saw Maryon again at her clinic and was able to say that I generally had more energy and was more positive. My symptoms were reducing and I was satisfied with the nutritional diet.

I travel frequently with my job, staying in hotels but manage quite well to stick to the recommendations. Four months down the line and I am getting on very very well. I feel better mentally, more in control and much more positive. I am relaxing more now and will look into having some massage. My fatigue and irritability have gone, I am sleeping much better, my flushes are very infrequent and constipation is a thing of the past. A bonus throughout the programme at the WNAS is that my weight has dropped to a comfortable level for me at 55 kilos. I am very pleased with myself and people have noticed a more rational person in their midst.'

See also: Osteoporosis, Sample WNAS programmes for normal menopause, early menopause, Prevent osteoporosis, sample high calcium diet, References and Recommended reading (Cruising Through the Menopause, Your Health in Your Hands – The WNAS Guide to Better Bones, The Phyto Factor).

Migraine Headaches

Migraine headaches are a common problem in both adults and children, and are often related to hormonal events like puberty, the onset of a period or the menopause. Migraines can be distinguished from other headaches because they are characterised by a severe, intermittent ache which is often accompanied by a variety of symptoms including nausea,

vomiting, disturbance of vision, flashing lights, and other strange feelings, all of which may occur either before or at the start of a headache. Intolerance to light and noise are also common features of a migraine. The attacks can last anything from several hours to two to three days.

As many sufferers know, once an attack has begun, it is virtually impossible to stop it running its course. This is now thought to be due to a series of chemical or electrical changes that occur in the blood vessels of the head and the brain. It seems that there is a strong physical or chemical basis to many sufferers' migraine headaches, which may be triggered by a variety of factors.

What causes them?

Potential triggers for migraine headaches include:

- Stress, such as family or work tensions, or lack of sleep.
- Low serotonin levels – it is thought that migraine attacks are caused by chemical imbalances in the brain. Levels of the brain chemical serotonin drop during a headache which triggers an impulse along one of the nerves which triggers inflammation and swelling of the blood vessels.
- Poor posture.
- Muscle tension.
- Glare or eye strain.
- Weather changes, e.g pressure changes, exposure to sunlight.
- Often migraine headaches occur in relation to the menstrual cycle during the build-up to a period, or on the day it arrives.
- The oral contraceptive pill can also trigger migraine headaches in some people, as can hormone replacement therapy.
- Missing meals also seems to be a trigger for migraine, and children may be particularly susceptible to this.
- Doing without your regular cups of tea and coffee can certainly cause withdrawal migraine headaches and these seem to occur particularly at the weekends, when you are out of the office, when going on holiday perhaps, or if there is a change in your daily routine.
- Additionally, there is a wide variety of foods that are known to trigger migraine headaches in susceptible individuals. The commonest foods include cheese, chocolate, most alcohol beverages and particularly red wine, yeast extracts (for example Marmite), pickled herrings and soy sauce, which are all rich in certain types of chemicals called amines. Some migraine sufferers seem to be particularly sensitive to amines. Other less common triggers include certain fruits, in particular citrus fruits, bananas, plums and pineapples, broad beans, artificial colourings and monosodium glutamate, that favourite flavour-enhancer of many a Chinese meal and savoury snack.

Some migraine headaches can also be due to a sensitivity to milk and wheat, even though they do not contain these chemicals.

What your doctor can do

- Measure your blood pressure, as occasionally migraine headaches are due to the presence of high blood pressure or other conditions affecting the nervous system.
- Examine you, and if your symptoms are severe or persistent, refer you to a neurologist to determine whether there is an underlying medical cause.
- If severe migraines occur as a result of taking hormones or the oral contraceptive pill, then a change in treatment may well be needed. We often find that hormone replacement therapy, prescribed at the time of the menopause, produces more frequent and more severe migraine attacks.
- Suggest you take aspirin on a regular daily basis, as this may ease the mechanics of a migraine. Research shows that blood platelets of migraine sufferers clump together more than they do in non-sufferers, particularly between attacks. Aspirin has been shown to reduce the degree to which platelets stick together.
- Prescribe medication specially designed for migraine headaches like Migril or Migralve which often ease the symptoms, but do not address the root cause.
- Give you some dietary advice, as there is plenty of evidence to show that certain foods can trigger platelet stickiness, and thus precipitate an attack.
- Offer some other drugs which may be useful in preventing migraines. They include low doses of antidepressants, anti-arthritis drugs and beta-blockers used for high blood pressure.

Deborah's story

Deborah Crean was 52 when she approached the WNAS. She had two grown-up daughters and was just beginning her menopause. She had suffered migraine headaches, for at least two weeks per month, for over 20 years.

'I was in a real state when I went along to the WNAS for the first time. My migraines were ruining my life, and no amount of Imigran or Migril seemed to control them. Things went from bad to worse when I was put on HRT eighteen months ago for the start of my menopause, as the frequency of the migraines accelerated until I was experiencing daily migraines. My doctor had no other suggestions

which made me feel very depressed, especially as both my mother and one of my daughters suffered with migraine as well.

I read about the work of the WNAS in a national newspaper and in desperation made contact. I was given lots of information about my body's requirements during my first consultation, and was then sent off for a month to follow an exclusion diet, take gentle exercise and some supplements. I didn't get on very well with some of the supplements, as they seemed to make the headaches worse, but I continued with the others.

I had awful withdrawal symptoms for the first week, but after a month I realised that my hot flushes had gone, and so too had the giddy feelings and lack of energy. Within three months of starting the programme, I had two normal periods, which had been missing for several months, and no migraines for the first time in 20 years. It felt like nothing short of a miracle to me. I felt marvellous. It turned out that caffeine and chocolate brought the headaches on and I obviously avoid them like the plague now that I know.

My husband was so delighted that he had got his partner back, he booked a Caribbean Cruise as a second honeymoon! It has been nearly four years now, and I haven't looked back.'

What your dentist can do

Primarily, he can check to see whether you are grinding your teeth or clenching them at night, as this can send the jaw muscles into spasm. Also the jaw can sometimes be out of alignment (this can be corrected by wearing a plate designed by a dental specialist).

Just how spasms trigger headaches is not clear. One theory is that the exhausted muscles build up waste products, and instead of draining into the circulation they flow up the venous system into the head, irritating the brain. Another theory is that the muscles and jaw joints are sending a continuous stream of unconscious messages to the brain that they are not 'comfortable', and in an attempt to block out the flood of information, a migraine is started. Ear aches, neck aches and even sore throats can also be triggered by temporo-mandibular (jaw bone) joint dysfunction.

What you can do in the short-term

If you feel a migraine headache coming on:

- The first thing to do is to rest and avoid stress, if at all possible.
- Take a simple painkiller, such as paracetamol or aspirin; certain special forms of these are available for migraine sufferers. There is also a variety of other stronger drugs which can be taken and these can switch

off a migraine attack. You will need to ask your doctor about these as they are available on prescription only.

- Sometimes taking one or two teaspoons of sodium bicarbonate in a glass of water can help to relieve a migraine. This loads the system with carbon dioxide.
- Another way of loading your system with carbon dioxide is to place a large paper bag over your mouth and breath in and out of it slowly for five or ten minutes.
- Massage your temples, forehead, ears and skull gently whilst breathing regularly and deeply.
- The herb, feverfew, has been shown to be helpful with migraine headaches. You can buy feverfew pills in health-food shops.
- Another very simple but useful remedy is to chew on some crystallised ginger and use root ginger in your cooking. Ginger helps to dilate the blood vessels that have constricted during a migraine attack.
- Always seek and treat the cause of the headache, rather than the symptom, as long-term reliance on pain-killers can switch off the brain's natural ability to fight the pain.

What you can do in the longer-term

- If you suffer with migraines it would be a good idea to eliminate the foods associated with migraine from your diet, and also to limit intake of tea and coffee. Reduce your intake gradually, eat regularly, and avoid stress where possible. Follow the recommendations and suggested menu on page 473. The success of diets excluding these and other foods can be very high. Reduction rates of 90 per cent of migraines have been recorded, but this does vary a lot from individual to individual.
- If after a few weeks that doesn't seem to do the trick, then follow the recommendations in The Simple Exclusion Diet on page 460, for four weeks.
- If you smoke, cut out the cigarettes.
- If you take the pill, try another method of contraception for a few months to see whether there is any relationship between this and your migraine headaches.
- Low magnesium levels may also play a significant role in many cases of headache. It is particularly important in the relief of tension headaches as the mineral has muscle relaxant properties.
- Taking an essential fatty acid supplement can significantly improve migraine headaches by reducing platelet aggregation (red blood cell clumping) associated with the prevalence of headaches.
- Never miss a meal – make sure you eat wholesome food little and often to maintain your blood sugar levels.

- Take plenty of aerobic exercise, at least three times per week, as studies have shown that this will reduce the number of migraine attacks.
- Get out into the fresh air when possible, and make an effort to look at distant scenery, to give your eyes a different perspective to your everyday chores, particularly if you are doing lots of close-up intricate work.
- Learn to manage your stress with regular relaxation (see page 29).
- The herb ginkgo biloba is useful for treating migraines because it enhances cerebral circulation. Other effective remedies include chamomile, ginger, peppermint and valerian. Consult a qualified practitioner before taking ginkgo biloba.

Do not take any herbs if pregnant.

Complementary therapies

Herbs like feverfew and ginger are particularly helpful, and can be tried without advice. Your herbal practitioner will prepare a prescription for you which may well relieve your symptoms. There are many homeopathic remedies to try, which may also be of help, both in the long term, and in the shorter term, when you feel an attack coming on.

Acupuncture, acupressure, Alexander technique, massage and cranial osteopathy are all likely to be of help in relieving and managing the symptoms of migraine. It is very much a personal choice, and a question of assessing what suits you.

See also: Stress, Allergy, What's wrong with present-day diet and lifestyle?, The simple exclusion diet, Menu for migraine, The caffeine-free diet, References and Recommended reading.

Miscarriage

The definition of a miscarriage is the loss of any pregnancy before twenty weeks' gestation. Approximately 15 per cent of all recognised pregnancies miscarry. However, a pregnancy which miscarries within the first two weeks of conception is unlikely to be recognised as a miscarriage. As many as 60 per cent of conceptions may miscarry within days of fertilisation and the rate of spontaneous miscarriage in the general public is 25 per cent.

The majority of women who miscarry once, go on to have a successful pregnancy next time around. However, there are others, approximately one per cent, who suffer recurrent miscarriages, three or more failed pregnancies before twenty weeks' gestation. Even so, over half of these women do go on to have a successful pregnancy, despite their frustration and disappointment along the way.

What causes it?

There are many factors that can be the underlying reasons for miscarriage:

- *Genetic problems* Defects in chromosome or material from either partner is probably the main cause of sporadic or one-off miscarriages, accounting for 55 per cent of miscarriages. It is nature's way of deciding not to continue with a pregnancy that might have resulted in a handicapped or significantly deformed child. The risk of miscarriage increases if there is a history of genetic illness in either partner's family.
- *Increasing age* of the mother is associated with an increase in miscarriage rate, possibly because of the greater likelihood of chromosomal damage to the eggs, which occurs in Down's syndrome, for example.
- *Environmental factors*, including smoking and drugs. Smokers are 25 per cent more likely to have a pregnancy end in miscarriage than non-smokers. It is the most common environmental hazard associated with miscarriage. Passive smoking might also increase the risk of miscarriage. If you want a successful pregnancy, live in a smoke-free environment.

Alcohol and illicit drugs carry a similar risk. Those who smoke heavily and/or consume excessive amounts of alcohol or street drugs are far more likely to have a lower intake of good nutrients, which can be a contributory factor to a miscarriage. The importance of adequate levels of nutrients should not be underestimated. Some women with recurrent miscarriage have recorded a relative lack of a chemical called prostacyclin, necessary for the growth and development of the growing baby. Adequate supplies of zinc, B vitamins, magnesium and other nutrients may also be necessary for the right biochemical environment for the developing embryo.

- *Toxic metals* Abnormally high levels of cadmium, present in cigarette smoke, and lead from petrol have been found in the tissues of still-born babies. These metals are more toxic if the diet lacks essential nutrients like calcium, iron and zinc, and a poor intake of these nutrients is associated with an increased risk of miscarriage.
- *Hormonal abnormalities* Severe hormonal imbalances, often associated with infertility, can also result in miscarriage. Additionally obesity, poor diet and lack of essential nutrients that contribute to normal hormone function, might also disturb the delicate hormone chemistry required for the survival of a pregnancy. Disturbances in thyroid function can also increase the risk of miscarriage, but the risk is minimised when the thyroid is treated.
- *Pre-existing disease* Diabetes, high blood pressure and rare diseases that affect metabolism, may be associated with increased risk of miscarriage, which makes careful control of these conditions essential.

Blood abnormalities associated with arthritis contribute to the rate of miscarriage, as does a condition known as SLE – systemic lupus erythematosus – that causes arthritis, skin disorders and other problems in young women. The blood of female sufferers, who may be identified only because they have recurrent miscarriages, may contain what are known as antiphospholipid antibodies. Anyone who has endured three consecutive miscarriages should be tested for SLE, or related blood abnormalities, as these may lead to disturbance in the blood formation in the blood vessels in the placenta, and result in miscarriage or still-birth later in pregnancy. If the tests are positive, specialist treatment prior to conception would be necessary.

- *Anatomical problems* Abnormalities of the genital tract like a soft weakened cervix (neck of the womb) will allow a miscarriage to occur. Surgical treatments before attempted conception, or a stitch in the cervix once pregnant, may be needed.
- *Infection* It is acknowledged that a variety of infections, including rubella (German measles) and listeria, an infection from ‘live’ soft cheeses, if contracted during early pregnancy can lead to miscarriage or congenital deformity. Low grade mild bacterial infection of the vagina has also been linked to recurrent miscarriage more recently.

What your doctor can do

- Examine you to determine whether you have any anatomical abnormality that needs attention.
- Check your hormone levels, as recent research has shown that increased levels of the pituitary hormone LH (lutensising hormone), close to conception, and a low level of the ovarian hormone progesterone shortly after conception, may reduce your chances of a successful pregnancy.
- Take a vagina swab to assess the possibility of infection.
- Investigate the possibility of an hereditary genetic defect.
- Following three consecutive miscarriages, measure your anti-cardiolipin antibodies, and lupus anti-coagulant.
- Give you some reassurance.

What you can do

- Try not to worry unduly.
- Follow the instructions for A preconceptual programme on page 386. This will mean ensuring you are eating a good diet, taking regular exercise, living and working in a wholesome environment, and keeping away from the ‘social poisons’.
- Give your body a rest and recover after miscarriage, before trying to

conceive again. It is preferable to give yourself at least four to six months between pregnancies.

- Take the opportunity to have any medical problems checked by your doctor or a specialist.

Complementary therapies

It is worth investigating what herbal medicine has to offer, especially if you have had more than one miscarriage. Acupuncture may be able to help your body back to normal function, and to speed the recovery process from the last miscarriage. Certainly an appointment with the cranial osteopath will be useful, and aromatherapy massage will help to soothe away your anxiety.

Whilst investigating what these complementary therapies have to offer, it is important to have any medical investigation that is indicated, especially if you have suffered recurrent miscarriage. Don't despair, the chances of you having a live baby after a single miscarriage are 80 per cent, only falling to 74 per cent after three miscarriages.

Denise's story

Denise is a 32-year-old who has had four miscarriages between her two successful pregnancies.

I had the first miscarriage ten years ago. I was three months pregnant at the time and we had not really planned a baby. It wasn't until after I had miscarried that I realised how much I would have liked a baby. My husband felt ready for children three years later and we then spent three years trying to conceive without any luck. We both had investigations and everything seemed to be normal. As luck would have it, as the investigations finished I fell pregnant naturally, and although I bled through the first part of the pregnancy, I managed to produce a healthy baby boy.

I had subsequent miscarriages when Alex was eighteen months old and again at two and a half and again when he was three and a half. Usually I was between nine and twelve weeks pregnant when I lost the baby. I would always start with spotting and gradually I would miscarry. Twice I ended up having a D&C, and on another occasion I managed with scans to ensure that I had fully miscarried. I was then given a laparoscopy to check to see why I kept miscarrying and the only thing the doctor found was a slightly mis-shapen uterus which was apparently somewhat flat on one side. Whilst investigating he also found adhesions on the ovaries and on my tubes which he removed after the fourth miscarriage.

I was advised to ask my doctor to test my anti-cardiolipin antibodies and lupus anti-coagulant as this might throw some light on

the underlying reason for the miscarriages. The doctor would not conduct the tests as he said I had already been investigated for inflammation. I felt pretty desperate about having another baby which obviously was affecting my relationship with my husband.

I heard about the work of the WNAS on the radio and wondered whether I might be nutritionally deficient after so many miscarriages. I went along to the clinic and was given a dietary programme to follow with nutritional supplements and a recommendation to do lots of exercise, which I used to do regularly. I enjoyed the programme immensely and managed to get myself back into really good shape, within four months. I felt like a different person.

The following month I managed to fall pregnant again – although I did experience some spotting I rested a great deal and managed to carry the baby until full term. She was a beautiful wide eyed little girl and was well worth waiting for.'

See also: Standard references and Recommended reading (*Healthy Parents, Healthy Baby*).

Mouth Disorders

The most common diseases in the world are those of the mouth, such as dental caries or tooth decay, and periodontal or gum-disease.

- Every year in the UK, about two million days are lost from work because of dental disease.
- Twenty-nine per cent of people over the age of sixteen years (rising to 39 per cent in Scotland) have no natural teeth remaining.
- Amongst those over 35 years old who still have some teeth, over 90 per cent show signs of gum disease.
- Seventy per cent of five year olds and 97 per cent of fifteen year olds have had some tooth decay.

According to the figures (1982/83), about £612 million, which is just under 5 per cent of the health budget, is spent each year on dental treatment in the UK, representing 34.1 million courses of treatment. Except for mental health, this is the largest amount spent on any single group of diseases.

The mouth

Each tooth in the mouth contains a crown, which is the part visible in the mouth, and the root, which is anchored in a socket in the jaw bone and covered by the gums. Teeth are composed of a number of different layers, and each serve a function.

Enamel covers the crown of the tooth and is the hardest structure in the body. It reaches to just below the edge of the gum, and joins the cementum, which is the thin layer of bone-like tissue covering the root of the tooth and which helps to secure the tooth in its socket. *Dentine* is the hard, bright yellow, primarily non-living tissue that forms the bulk of the tooth. It reaches from the crown down through the roots. Finally, the *pulp* is the living centre of the tooth, which contains the nerves and blood vessels, and is therefore the part of the tooth that registers pain or thermal changes.

The supporting structures of the teeth are known as the periodontium, and comprise:

- part of the jawbone which surrounds and supports the roots.
- the membrane which acts as the attachment between the cementum and the socket in the jawbone.
- the gum, known as the gingiva.
- the pink membrane and underlying tissue that covers the bone.
- the cuff of gum around the tooth, which is an important feature in gum disease.

Saliva

This is the watery fluid that is produced by salivary glands within the mouth. It is Mother Nature's own mouthwash. There are three pairs of glands in the mouth from which saliva is secreted. Amongst its other functions, saliva dilutes the amount of sugar-produced acid present in the mouth because of the calcium and phosphates it contains. Both these minerals in the saliva act to repair some of the damage done by dental decay.

Plaque

We all have a thin, sticky film, composed mainly of bacteria, called plaque, covering our teeth. It continually forms in the mouth and sticks on rough surfaces on the teeth. It is most commonly found in the little crevices between our teeth, on the backs of our teeth, and at the gum margin, where gums and teeth meet. Plaque feeds on sugary deposits from our diet, and the by-products of this cause both tooth decay and gum disease.

TOOTH DECAY

When plaque is exposed to sugar from the diet, the bacteria contained in it convert the sugar into acids, which attack enamel on the teeth. After repeated acid attacks a cavity forms which becomes deeper as more acid

is released from the plaque. The cavity eventually works its way through the enamel and the dentine and into the pulp chamber, which then becomes infected with bacteria. The pain of toothache is generated from the pulp, and if nothing is done the pulp dies, and the infection then infiltrates the root of the tooth forming an abscess in the bone surrounding it.

GUM DISEASE

There are a number of stages to gum disease, the most minor of which is gingivitis.

Gingivitis

Plaque accumulates around the margins of the gum and the teeth, and between the teeth in the crevices, and if left to stagnate, produces poisons which in turn cause inflammation of the gums known as gingivitis. The gums become red, swollen and shiny and have a tendency to bleed easily. If you notice blood after you brush your teeth, you should consult your dentist.

Periodontitis

When plaque is left to stagnate it gradually absorbs calcium salts from the saliva and hardens to become calculus, or tartar. This sits around the gum margin and is a constant source of inflammation to the tissues. As the disease progresses the calculus works its way down between the gum and the tooth into a pocket, and this stage is known as periodontitis.

Younger people experience gingivitis when they are being careless with their oral hygiene, and this is how the disease process begins. An improved oral hygiene regime can reverse the disease process, until, with age, the gums recede and bone is lost. Neither of these tissues, gums or bone, can be replaced once lost, and so it is vital to remove the plaque thoroughly each day in order to prevent diseases of the mouth.

Acute ulcerative gingivitis

This is an infection of the gums which is possibly bacterial in origin, but it seems it can also be attributed to some underlying nutritional cause. It was given the name 'trench mouth' following widespread outbreaks amongst soldiers who were sharing utensils in the trenches during both the First and Second World Wars. However, it is acknowledged that many of these soldiers were also suffering from scurvy, the result of severe vitamin C deficiency. The gums become infected, turn a greyish colour, the top surface often rubs away leaving sore, painful patches, and it feels like something is wedged between your teeth, particularly the back teeth. As the surface of the gums is attacked and the cells die, a tremendous odour is created. This condition needs to be treated urgently with Flayyll,

a special form of antibiotic. You would be feeling unwell enough to seek dental or medical advice if you were suffering, and not able to enjoy a meal because of the pain and soreness.

Ninety percent of adults in the UK have gum disease and many suffer with halitosis or bad breath! Unlike toothbrushes and mouthwashes, dental floss can reach the plaque bacteria, decaying food and toxins, hidden beneath the gum line, which cause bad breath, gum, disease and can lead to tooth loss. Dental floss should be used daily in conjunction with tooth brushing by anyone who is keen to reverse gum disease, maintain oral health and prevent the stage of inevitable tooth loss. Not enough incentive? What about recent research linking gum disease to heart disease, osteoporosis and premature birth?

Few people in the UK use dental floss. Perhaps this is because traditional nylon floss is difficult to use – it's messy, it hurts, it takes too long, and the floss breaks and can catch between teeth.

One brand only is accredited by the British Dental Association. Made from polytetrafluorethylene (PTFE), Glide dental floss has an advantage over nylon in that it slides comfortably between teeth without shredding and leaving fibres behind. Regular flossing as part of a professional oral hygiene routine will prevent gum disease, may reduce the risk of heart disease and even save your life.

Brush your teeth with natural toothpaste containing either fennel or coenzyme Q-10 which both promote oxygen transport throughout the gums.

HERPES SIMPLEX

This is the most common virus of the mouth. The initial infection, which often affects young children, appears as blisters and ulcers on the gums, lips and soft tissue inside the mouth, and often remains undetected. It can cause a fever and make the child feel lethargic for up to fourteen days. This initial phase of herpes is called 'herpetic stomatitis', which simply means herpes in the mouth. This same virus can also cause genital herpes in children, but more commonly in adults, (see page 216).

What you can do

- Give a soft liquid diet as it may be too uncomfortable to eat normally.
- Analgesics, such as Junior Disprol, will help to reduce the discomfort.
- Chlorhexidine-based mouthwashes or dental gel will help to reduce the accumulation of plaque at a time when toothbrushing is too uncomfortable.
- Vitamin and mineral supplements should be given, with extra vitamin C and zinc to help promote healing.

- If you smoke, stop, as tar irritates the gums and reduces the peripheral blood supply to the gums.
- Brush your teeth with fennel toothpaste or aloe vera with added co-enzyme Q-10 which enhances oxygen supply to the gums. Echinacea toothpaste has anti-bacterial properties.
- Chew some sugar-free gum which increases the production of saliva, helps relieve jaw tension and ensures correct loading on the teeth.
- Mouth washes containing aloe vera and tea-tree oil have beneficial anti-viral and anti-bacterial properties.

COLD SORES

Following an initial attack of herpes in the mouth, the individual is likely to develop cold sores on the lips or face, which are secondary outbreaks of herpes simplex. They can be precipitated by numerous external factors:

- excessive sunshine
- emotional stress
- fatigue
- inadequate diet
- periods of ill health

HERPES ZOSTER

This form of herpes may affect the tissues in the mouth during a primary episode of chickenpox. Subsequent attacks can appear in the form of shingles, and may affect the nerves in the head, face and any part of the trunk, chest or abdomen, causing an outbreak of a typical rash with small blisters, which may ulcerate and crust with blood. Ulcers may also form on one side of the mouth, (see page 329).

What you can do

- Make sure you are well nourished – follow the recommendations for The Very Nutritious Diet on page 437.
- Get adequate sleep.
- Don't spend long periods of time sunbathing.
- Protect your lips with petroleum jelly in the sunlight, or other herbal creams like VyrBrit, a German product which has shown to restrict the growth of a cold sore if caught in time, and seems to be as effective as the pharmaceutical preparations like Zovirax.
- Avoid oral sex completely whilst you are infected.
- Try supplements of Lysine, which is an amino acid found in foods and can replace the chemically related amino acid Arginine, needed by the virus to replicate itself.
- Follow a diet rich in lysine and low in arginine. This means avoiding

nuts, chocolate, carob, oats, wholewheat, and soya beans. Instead eat more fish, chicken, meats, milk, cheese, mung and other beans (but not soya).

ACUTE THRUSH

The digestive tract is like a hose-pipe that leads from your mouth to your tail end. If thrush is present in one part of the tube, it can travel to other areas. Thrush can be found in the mouth, appearing as soft white masses on the surface of the tissue, which when scraped off, leave a red or bleeding patch. Occasionally it is a feature of diabetes, or can occur in a patient whose salivary glands are malfunctioning. It can be treated with antibiotics and you would be advised to follow the instructions given in Thrush (see page 124).

MOUTH ULCERS

Approximately 10 per cent of the population experience aphthous ulcers (mouth ulcers) at some time. They are little sores that have a yellowish white appearance, and can appear singly or in crops. They also vary in size, but as a general rule the larger they are, the more pain they seem to cause. There is no recorded pattern to their occurrence, except that many women seem to get them in their premenstrual phase.

What causes them?

Although there is no specific agreed cause, there are a number of precipitating factors:

- Undue stress.
- Fluctuating hormone levels. The vast majority of the women we see with ulcers have an outbreak in the two weeks before their periods. The conclusion is that a relationship exists between hormone levels and aphthous ulcers. However, in our experience hormone levels may fluctuate abnormally when brain chemical metabolism is disturbed.
- Nutritional deficiencies. In the absence of adequate nutrients, brain chemistry is often disturbed and the immune system may become impaired, rendering the body more susceptible to conditions like mouth ulcers. In our experience when the deficiencies are corrected the outbreaks of ulcers diminish.
- Food allergies. We have observed a relationship between food sensitivities and mouth ulcerations. We very often find that women sensitive to wheat get a recurrence of ulcers when they try to reintroduce it into their diet.
- Accidental trauma to the tissue. Sometimes hitting yourself with a toothbrush or knocking into something can result in ulceration.

What your doctor can do

Prescribe a chlorhexidine- or zinc-based mouthwash, or hydrocortisone pellets or cream, which can be placed over the ulcerated areas to reduce the inflammation.

What you can do

- Get your diet in order. If you have PMS as well, follow the recommendations on page 394. If you suspect you may have some food allergies, follow the recommendations for The Simple Exclusion Diet on page 460. If neither of these apply, then follow the recommendations for The Very Nutritious Diet on page 437.
- Take multi-vitamin and mineral supplements, and perhaps extra zinc and vitamin C.
- If the ulcers continue for more than four weeks, get your doctor to examine them as it is possible to get cancer in the mouth, and it is obviously better to be safe than sorry.

Susan's story

Susan Duncan was a 51-year-old women with two grown up children. She had been experiencing problems with her periods, constipation, general lack of vitality and lichen planus which is a chronic inflammatory disease of the mucous membranes and usually affects the mouth.

I had not been feeling well in myself for some time and had put on 9.5 kg (a stone and a half) in weight and was experiencing hot flushes. My cravings for food, particularly sweet food, had begun to get out of control and I found myself bingeing on biscuits, cakes, chocolates and sweets, which was particularly worrying as my parents were diabetic and obese. I had an outbreak of very sore ulcers in my mouth but instead of clearing up in the usual way they seemed to spread and become more extreme, to the point where my eyes were affected too. They felt painful and swollen, irritated and sore.

I went to my doctor for some advice. He was somewhat mystified and wondered at first whether it was thrush. He tried me on various different types of medication but the symptoms did not respond at all. My daughter suggested that I visit my dentist, which I did and he diagnosed lichen planus. He referred me to the local district hospital. The diagnosis was confirmed and it was suggested that I either take steroids or learn to live with the problem. When I went back to my dentist and told him I didn't really want to take

the steroids he told me that he had heard that diet might help. By this time I felt that my nerve endings had become hypersensitive too so I stopped drinking coffee and approached the WNAS for some help.

After a thorough examination I was given a programme consisting of modifications to my diet, daily relaxation, regular exercise and supplements. I followed the advice I was given by the WNAS and within a matter of a few weeks the lichen planus had calmed down and my eyes were not affected at all. I am not in any pain now. I still have the lichen planus mildly but it does not hurt at all or bother me. In addition to overcoming the chronic mouth problem, I also managed to sort out my constipation, food cravings and flushes and lost the excess weight. I feel very well and have sufficient energy to cope with life.'

BURNING MOUTH SYNDROME

A burning sensation from the oral tissues is a fairly common complaint. It is not usually present in the morning, but seems to get worse as the day goes by, and may be relieved by eating or drinking or removing dentures.

What causes it?

There are, once again, numerous factors associated with burning mouth syndrome:

- problems with dentures
- deficiencies of the blood
- diabetes
- dry mouth
- the menopause
- candida or thrush
- anxiety
- fear of cancer
- depressive conditions
- sensitivity to a mouth wash or over-use of mouthwashes
- esophageal reflux – where partially digested food is brought back.

One factor not given much attention is that a significant proportion of people who suffer burning mouth syndrome are likely to be suffering from a vitamin B1, B2, or B6 deficiency. In a Scottish study of those who were deficient, replacement therapy produced a resolution of symptoms in the majority of cases.

What your doctor can do

- Offer a routine check-up to eliminate the possibility of diabetes, thrush, blood insufficiency or depression being the underlying cause.
- An enlightened doctor would hopefully check your B vitamin levels, and prescribe the appropriate B vitamins if the results indicated a need.
- If you wear dentures your dentist should check to make sure they are not causing an adverse reaction in your mouth.

What you can do

- Follow the recommendations for The Very Nutritious Diet on page 437, unless you feel your symptoms are associated with the menopause, thrush, or anxiety, in which case refer to appropriate dietary recommendations.
- Take strong multi-vitamin and mineral supplements daily, and possibly extra vitamin B complex.
- Get regular exercise and relaxation.
- If you have your own teeth, follow The Good Oral Hygiene Plan outlined here.

The good oral hygiene plan

Keep your breath fresh by brushing your teeth and gums carefully, twice a day, for at least three minutes each time. If your gums are really inflamed and sore, you can start by using a soft-headed brush, aiming to change over to a medium-headed brush to maintain the health of the gums. Gums need to be massaged to create a hard skin layer on the surface, a bit like that on the palms of your hands. Massage in little circles on the spot at the place where the gum and teeth meet, the gingival margin. If you are not sure about brushing techniques, check with your dentist or hygienist.

- You also need to floss between your teeth each day, in front of the mirror to ensure you don't damage the gums. This disturbs the plaque and food debris which build up between the teeth, and are out of the reach of your toothbrush.
- Dental floss should be used daily in conjunction with tooth brushing by anyone who is keen to adopt a thorough, comfortable and effective oral hygiene routine.
- Use a mouthwash to loosen the plaque before cleaning your teeth.
- Rinse your mouth with water after meals, taking care to swish the water around your mouth to loosen any remaining particles of food.
- Eat raw vegetables and fruit regularly as snacks as these exercise your

gums, and unlike sweet processed carbohydrates, don't feed the plaque in your mouth.

- Drink lots of fluid to keep the saliva in your mouth flowing freely.
- Have checks with your dentist and hygienist at least every six months.
- Stop smoking.
- Brush daily with fennel or aloe vera with added coenzyme Q-10 toothpaste.
- Use a mouth wash containing aloe vera and tea-tree oil daily.
- Follow the recommendation for The Very Nutritious Diet on page 437, or if you suspect you may be suffering food intolerances, follow the recommendations for The Simple Exclusion Diet on page 460.
- Take supplements of multi-vitamins and minerals and additional vitamin C, at least 1g per day.

Multiple Sclerosis

This is a common and well-known disease which affects the nervous system. It is primarily a disease of northern Europeans, and occurs infrequently in other races. It is rare in Afro-Caribbeans unless they are born and raised in the UK, and is rarely diagnosed in Aborigines or Maoris. There can be strong family tendencies, with the risk rising as high as one in three for the partner of an affected identical twin. The prevalence is also less in areas remote from Europe. White South Africans and Australians of European origin have only half the rates of those found in many parts of northern Europe. It is sometimes linked with virus infections including measles, mumps, rubella and the Epstein-Barr virus (causing glandular fever), but the link is not proved.

What causes it?

Multiple sclerosis (MS) is due to a loss of the insulating fatty sheath around nerves. This fatty material, known as myelin, facilitates the rapid conduction of impulses along the nerves. Its loss in either the brain or spinal cord means that messages do not get through, with consequent disturbances in sensation, movement and vision. Typical features include:

- loss of vision affecting one or both eyes
- weakness in an arm or leg
- spasm in the major muscles of the arm or leg
- loss of sensation almost anywhere in the body
- disturbance in bowel or bladder function

- double vision
- a variety of other unusual neurological symptoms
- depression and mood changes.

In four out of five patients the disease waxes and wanes. In each attack a different part of the nervous system may be affected producing new problems. These may last for several weeks or months, with slow and sometimes complete, sometimes incomplete, recovery. After many years, ten or twenty, there may be slow but progressive deterioration. In young women the disease is often very mild, and disabling events occur only very rarely. However, up to 15 per cent become severely disabled within a short time due to aggressive disease.

What your doctor can do

- Refer you to a specialist for a variety of investigations in order for the diagnosis to be made. There are a variety of other possibilities in patients who appear at first glance to have multiple sclerosis.
- Exclude vitamin B12 deficiency by measuring its level in the blood or performing specialised tests of vitamin B12 usage.
- Treat the symptoms, which may involve a variety of medical basics to aid with constipation, incontinence, and reduction of muscle spasm, and drugs to control tremor and to minimise feelings of giddiness.
- There have been a number of attempts to influence the course of the disease using drugs that alter or influence the immune system, as this is involved in the initial episode of tissue injury. Preliminary evidence suggests that these powerful drugs may be useful but at present they tend to be used in those who have rapidly progressive MS. Just recently, beta-interferon, a naturally occurring immune altering chemical, showed a one-third reduction in new episodes, but without any measurable reduction in disability or overall course of the disease. This is now available for some patients within the UK and the USA.

What you can do

- *Change your diet* There is some preliminary evidence that diet changes may help. This is taken from pulling the results of three trials where increased doses of linoleic acid, the parent Omega-6 series essential fatty acid, was given in substantial amounts to MS sufferers. This essential fatty acid and its biochemical by-products are found in high concentrations in the nervous system and influence its structure and function. Not all patients benefited but there is a suggestion that those with early disease and relatively mild disability could benefit from a diet rich in these fats (see High Essential Fatty Acid Diet, page 446).

- *Take supplements of evening primrose oil* This, with or without fish oil, may assist the above diet. Unfortunately, there are no large published trials and the effects are likely to be slow. A reasonable dosage of 4–6 x 500 mg capsules daily will probably need to be taken for many years.
- *Take supplements of vitamin B and multi-vitamins* These nutrients are involved in maintaining the chemistry of the essential fatty acids. It is conceivable that some patients with MS lack nutrients involved in fatty acid metabolism. A supplement of 400–600 IU of vitamin E together with a moderately strong multi-vitamin supplement should ensure adequacy of these factors needed for normal essential fatty acid metabolism. Vitamin B12 is particularly important for the health of the protective outer layer of the nerves – the myelin sheath. Demyelination or progressive deterioration of the myelin sheaths means that messages are less efficiently transmitted along the neurones (nerves).
- *Take a supplement of co-enzyme Q10* necessary for improved circulation and tissue oxygenation.
- *Limit exposure to environmental toxins* This means not smoking, and drinking moderately. Rarely, assessment for environmental poisons, such as lead, cadmium and mercury, is needed. Some researchers have linked the presence of mercury amalgam fillings in teeth with increased risk of multiple sclerosis in some communities, but this is not certain. Similarly no firm link has been made between food allergy and multiple sclerosis.
- *Eat organically* where possible to ensure that your diet is as wholesome and pure as possible.

Complementary therapies

A number may produce symptomatic relief, but it is difficult to give firm guidance. Aromatherapy, massage, physiotherapy, acupuncture, and reflexology will all have their advocates. Try them and see.

Nail Problems

A number of minor nail problems are worth mentioning. Sometimes they indicate a nutritional problem.

- Brittle nails can be due to iron deficiency.
- Spoon-shaped or upturned nails can be due to iron deficiency or to repeated trauma.
- White spots on the nails were thought to be due to zinc deficiency but this is probably only occasionally the case. Repetitive minor trauma such as housework or use of a keyboard are more likely.

- Ridging of the nails can be due to eczema, psoriasis or other skin problems. Mild forms are quite common in normal individuals and have no nutritional significance.
- Fungal infections of the nails are common and respond well to the use of modern anti-fungal agents given either as local applications in the form of paint or as tablets. Additionally a supplement of zinc taken for three to six months might be helpful too.

Skin, Hair and Nail Signs of Vitamin and Mineral Deficiency

<i>Sign or symptom</i>	<i>Can be caused by deficiencies of</i>
cracking at the corners of the mouth	iron, vitamins B12, B6, folic acid
recurrent mouth ulcers	iron, vitamins B12, B6, folic acid
dry, cracked lips	vitamin B2
smooth (sore) tongue	iron, vitamins B2, B12, folic acid
enlargement, prominence of taste buds at the tips of the tongue (red, sore)	vitamins B2, or B6
red, greasy skin on face, especially sides of nose	vitamins B2, B6, zinc or essential fatty acids
rough, sometimes red, pimply skin on upper arms and thighs	vitamin B complex, vitamin E or essential fatty acids
skin conditions such as eczema, dry, rough, cracked, peeling skin	zinc, essential fatty acids
poor hair growth	iron or zinc
dandruff	vitamins C, B6, zinc, essential fatty acids
acne	zinc
bloodshot, gritty, sensitive eyes	vitamins A, B2
night blindness	vitamin A, zinc
dry eyes	vitamin A, essential fatty acids
brittle or split nails	iron, zinc, essential fatty acids
pale appearance due to anaemia	iron, vitamin B12, folic acid, essential to consult your doctor

Martine's Story

A forty-five-year-old mother of three, who worked part-time as a secretary, Martine had been neglecting herself since her mother's death nine months earlier, eating largely junk food, and had put on two stones in weight. She was unhappy, had dry spotty skin and her hair was in poor condition. She also had dry rough red pimples on her upper arms and thighs, split brittle nails and cracking at the corners of her mouth.

'I hadn't been feeling brilliant for some time, so having to cope with my mother's death on top of that was probably the final straw. My eating got out of control and over a period of nine months my weight gradually went up to nearly 75 kg (12 stone). My normal weight was around 60 kg (9½ stone), so I felt uncomfortable, and obviously couldn't fit into any of my clothes, which was very depressing. I also noticed that my breasts became incredibly sore each month before my period.

As well as being overweight, I experienced mood swings and noticed that my skin, hair and nails had deteriorated. My nails were split and brittle, my skin became very dry and spotty, and my hair became dull and split. I felt like a walking wreck. I tried dieting, but found I couldn't stick to a diet for more than a few days which was very demoralising.

I read that cravings for food may be a physiological problem in a report on some research conducted by the WNAS, in Here's Health magazine. I contacted them for advice and was given a programme to follow that involved eating good food little and often, exercise and nutritional supplements. I started in December, which was difficult because of Christmas. But once the new year came, I found I was able to stick to my programme, in fact I was surprised how much I enjoyed it.

I lost weight gradually, without counting calories, and my vitality returned. Within four months I had lost 6 kg (1 stone) in weight, my skin was clear, my nails had grown beautifully and even my hair had got its old shine back. The breast symptoms had cleared up too. I felt like a new woman and totally in control. I've had some ups and downs since, but I feel that I now know what my body needs, so it's much easier for me to get back on the right road again.'

See also: Standard References.