

Part Two

**THE A-Z OF
PROBLEMS**

Abdominal Wind and Bloating

Gas in the bowel is certainly not something to bring up in social conversation, and yet on average we produce 1.5 litres per day, enough to fill a small balloon, which means that in a year we are talking about some 500 litres! Wind is often accompanied by a sluggish and constipated bowel, but fluid retention or lax abdominal muscles can contribute as well. Bloating can occur at any time, and is often worse for women premenstrually. It is best tackled by addressing the underlying problems of bowel sluggishness and anything that can influence wind production.

The subject of abdominal wind has only been taken seriously in the last decade. A variety of gases are produced by billions of mainly friendly bacteria that inhabit the large colon, the transverse section of the large bowel. (Surprisingly, there are more bacteria in the colon than there are cells in our body.) They are found only in tiny amounts in the small bowel where the majority of digestion and absorption of nutrients takes place. They first appear in our caecum, which is the first part of the large bowel, on the right side of the abdomen at about the point where the appendix is (or was, if it has been removed) and are waiting to pounce on the leftovers from the meal you ate several hours before.

These bacteria produce a variety of gases, some of which our own cells are incapable of producing. They include hydrogen, methane and carbon dioxide, all of which have no smell. The gas that smells like bad eggs is hydrogen sulphide, and it is more commonly produced by those living in the West, because of dietary factors.

What are the symptoms?

The trapped gases cause bloating which may be painful or painless, and often results in the sufferer having a lower self-image because frequently clothes don't fit. Some of the wind manages to escape through burping, or to give it its medical term, erucation, or through the back passage when its passing sometimes creates loud noises or an offensive smell. It may be accompanied by social embarrassment, especially if you cannot control its passing and the smell is noticeable by others. Severe sufferers commonly avoid social events because of their symptoms.

Who gets it?

The degree of wind and bloating is related mainly to the type of diet eaten, and how food is digested. Those with a poor digestion, especially with disease of the pancreas, will find that many foods will aggravate this problem. High-fibre foods are particularly to blame. An excess of fats can make it worse, too.

What causes it?

It is not the result of air we swallow, whilst breathing or eating, as most of this is absorbed during the digestive process or brought back as a burp. The amount and type of wind that any one individual produces is influenced by:

- The type of food eaten, especially fibre-rich foods.
- How well the food is digested in the small bowel.
- How quickly food and residues pass through the small bowel to the colon.
- The type of bacteria present in the colon, which may also be influenced by the type of diet we eat, presence or absence of illness, use of antibiotics and even the type of bacteria in the colons of those with whom you live.

What causes wind production can and does vary from person to person. Something that encourages wind in one person may well have no effect on another. And what causes you wind at one stage may not cause any problems at another time. So it is really a combination of factors and what goes on in the bowel that can influence many aspects of body health.

Excessive production of wind is more likely to occur if:

- You consume foods to which you are intolerant – and in theory this could be any food depending on your individual sensitivities.
- You eat foods that contain sugars that you cannot easily digest, and these are then fermented by the bacteria in the large bowel and converted to gas. The same can occur in fewer cases following the excess consumption of table sugar (found in most sweets and sweetened foods), fruit sugar or fructose (found in most fruits and vegetables), or the artificial sweetener Sorbitol (found in cool-tasting mints and some sugar-free sweets).
- You eat foods that are known to be hard to digest, especially if they are not well cooked or are eaten in large amounts. The list is potentially very long, and can certainly consist of any of the following:
 - wheat, especially wheat bran and wholemeal products

- coarse oats, barley and rye
- sweetcorn, especially if whole and not chewed well
- brown rice
- potatoes
- dried beans, lentils and sometimes peas
- vegetables of the Brassica family (cabbage, cauliflower, broccoli and Brussels sprouts) and Jerusalem artichokes
- shells of prawns and other crustacea
- mushrooms
- onions, garlic and leeks
- asparagus
- green peppers.
- You have a rapid gut transit time – which can be encouraged by drinking coffee and eating large meals. A low-fat, high-carbohydrate, high-fibre diet might make the situation worse, too. The combination of rapid passage through the small bowel, especially if the meal was hard to digest, will result in the bacteria of the colon getting their full share.
- You have poor digestion. If you have recently lost weight and experience abdominal pain, you should see your doctor without delay.
- You are making an excessive use of laxatives.
- You have been prescribed some relatively new drugs to control diabetes, as these inhibit the digestion of sugar.
- You eat large amounts of caramel, burnt sugar and modified starch. These have all been chemically altered by heat or the cooking process, which makes them harder to digest. Caramel is widely used as a colouring and flavouring agent, so you will need to read labels carefully. There is also a significant amount in beer.

What your doctor can do

The answer is probably very little, other than investigate for severe wind and bloating accompanied by other digestive symptoms. In truth, as our doctors know relatively little about diet, they too are probably suffering in silence. Occasionally preparations based on mint, such as Colpermin and Mintec, or old fashioned charcoal preparations can be helpful. If the wind is accompanied by diarrhoea, weight loss or blood in the stool then obviously medical investigations will be necessary.

What you can do

- Eat slowly, taking care to chew your food well.
- Avoid the foods that you know upset you.
- Ensure that your vegetables are not undercooked.

- If you enjoy eating dried beans, soak them overnight, shake them to remove the husks and cook them thoroughly. Many, including red kidney beans, need to be cooked for at least 10 minutes at a rolling boil, and then simmered for an hour before they are ready to eat. This reduces the potential wind-producing culprits – two tough carbohydrates called stachyose and raffinose. Black-eyed beans and red kidney beans are usually the biggest wind producers in the bean family.
- Eat smaller portions and take time to relax after a meal to aid digestion.
- Avoid foods rich in sulphur and sulphites as these chemicals encourage the conversion of hydrogen in the colon to hydrogen sulphide – the bad-eggs gas. The main dietary sources of these chemicals are:
 - bread
 - foods preserved with sulphur dioxide, such as dried fruits, and fruit squashes, plus anything else containing a sulphite or metabisulphite compound (where label reading comes in again)
 - wines, beers and cider, which often contain sulphite as a preservative (this doesn't have to be mentioned on the label)
 - eggs and all members of the onion family.
- Avoid caramel, burnt sugar and foods containing them.
- Don't smoke heavily during or after a meal as this can inhibit digestive function and for some could result in increased wind production.
- Eat charcoal biscuits, an old-fashioned remedy that might help.
- Peppermint tea is useful after a meal or when discomfort starts.
- Ginger in the form of tea or crystallised is useful for nausea.
- Have a pot of live yoghurt each day as this is rich in semi-friendly bacteria.
- Take a probiotic supplement such as acidophillus or lactobacillus bifidus. Probiotics contain 'friendly' bacteria which colonise the colon, helping to alleviate abdominal discomfort. They are particularly important if digestive abnormalities have occurred after taking a course of antibiotics. Acidophillus is available in capsules or can be obtained in powder form.
- It might be worth taking a supplement of fructo oligo-saccharides (FOS) which actually feed the existing 'friendly' bacteria to help re-populate the colon. FOS is a short chain polysaccharide that increases the levels of short chain fatty acids (SCFAs) like butyrate. SCFAs actually provide the primary energy substrate for colonic epithelial cell growth and replication. FOS is taken in powder form and must be introduced slowly or it can cause short-term bloating.
- Be patient, it could take up to six weeks to see stable improvement.
- Swallow your embarrassment and consult your doctor if these self-help measures don't work.

Relaxation

Both relaxation and hypnotherapy seem genuinely to improve the way the bowel functions, and are useful tools for diarrhoea sufferers. It seems that they influence the function of the gut muscles, encouraging them to work in an efficient co-ordinated fashion. It is also possible that with the help of regular relaxation and some hypnotherapy a person may gain more control of their bowels as they perhaps become less sensitive to and more tolerant of the disturbance in function.

Regular massage, of at least the abdomen and lower back, with some of the aromatherapy oils mentioned on page 31, is desirable for severe sufferers. Making sure you take time out to relax each day will also bring its benefits.

Complementary therapies

Herbal medicine is likely to offer you a mixture that will calm your bowel and aid digestion, and it is also worth consulting an acupuncturist. Homeopathy may also have a remedy that would bring relief from your symptoms. Any of these systems may help, but it is important to try one at a time, otherwise there will be a very confusing picture.

Sonya's story

Sonya was a 33-year-old woman from Sussex who was married with two children and worked as an administrator. She was admitted to hospital several times as a result of her symptoms, but was offered little effective help from the doctors who examined her.

'Following the birth of my second baby I began suffering with severe bouts of abdominal bloating and pains. One night I had the most terrible attack and thought I was dying. The doctor was called, and by the time he arrived I was hyperventilating. He called an ambulance, and I was taken to casualty, writhing and groaning in pain. The examining doctor was surprised by the amount of pain I was in, and was unable to make a diagnosis. I was kept in overnight for observation and given pain-killers. The following morning I was sent home with a diagnosis of colic, and no follow-up treatment whatsoever. The only suggestion my doctor had was to eat more wholemeal bread and bran, which made my symptoms even worse.

My symptoms affected my whole life. When I had them I found it hard to work and could hardly cope with my family duties. I had no choice but to leave the parenting to my husband. I dreaded family holidays and wondered what the future held for me.

I was recommended to the WNAS clinic. At my first consultation I was asked about many aspects of my history, diet and lifestyle. I

was given diet, exercise and supplement programmes to follow, which I duly did.

Within the first month I noticed a spectacular difference, and within four months the symptoms were gone completely! I am three years on now and can honestly say that I feel better than I have for years. I am now able to cope with my job and am a competent wife and mother, and I am immensely grateful. I do wish that the doctors that I had seen over the years had been armed with adequate knowledge about diet, which would have saved me a lot of pain and trauma.'

See also: Irritable bowel syndrome, Premenstrual syndrome, Recommended reading, Useful addresses, References.

Acne

Acne, or to give it its proper name, 'Acne Vulgaris', is perhaps the commonest skin complaint in that most of us have had some experience of it during adolescence. Three types of spots make up acne:

- the redheads or papules
- the yellowheads or pustules
- the blackheads or comedones

These usually appear on a background of inflamed red skin. This is most commonly on the face, back or shoulders. These red-, yellow- and blackheads are manifestations of the inflammation, infection and resolution that occurs in this condition. Initially there is an increased sensitivity to hormones in the skin. Testosterone, which is present in both men and women, stimulates the production of sebum or grease. The ducts that carry this grease to the surface become blocked, get inflamed, then infected, and then either discharge themselves or resolve, leaving a blackhead behind which is the thickened remains of the infected pus of the yellowhead.

Who gets it?

Many do in adolescence. Boys are more affected than girls and some, due to genetic factors, are not affected at all. Many women in their twenties and thirties are also affected as there may be minor hormonal changes or increased hormonal sensitivity that leads to the persistence of acne. Acne can also be caused by a few drugs: steroids, phenytoin and phenothiazines. Exposure to chemicals containing chlorine can also be a rare cause.

What your doctor can do

Therapy is aimed at reducing the bacteria on the skin surface, reducing the production of sebum or altering the hormonal stimulus to acne especially in older women.

- Local applications of antiseptic, especially benzoyl peroxide, help by inhibiting the growth of bacteria and reducing sebum production. A local application of retinoic acid helps to unblock plugged follicles and is used when blackheads dominate.
- Prescribe an antibiotic skin application or antibiotics by mouth. There are a variety of preparations with around a 75 per cent success rate. Sometimes the bacteria become resistant to one antibiotic, and a change is needed. A swab may help decide the best sort.
- Hormone-based treatment using either the oral contraceptive pill or a combination of oestrogen with a small dose of an anti-testosterone preparation, is useful for more resistant cases.
- A powerful drug derived from vitamin A, 13-cis-retinoic acid, is highly effective as it inhibits the excessive production of sebum. It is only used by hospital specialists in those who have failed to respond to other treatments. As its use is associated with foetal abnormalities, women taking it should use contraception.

What you can do

- Keep your skin clean. Clean your skin thoroughly after using make-up.
- Sunbathe. This often helps, though it may increase the number of blackheads.
- Squeeze the blackheads. This is worthwhile provided that they are not pushed inward into the deeper layers of the skin.
- Change your diet. Despite popular belief, no diet is of proven value in acne! For some avoiding chocolate seems to help. It is possible that a low-fat diet (weight-reducing if necessary) with high intake of fruit and vegetables and a reduced intake of wheat might help some sufferers.

Nutritional supplements

The only one of proven benefit is zinc. It is not as effective as antibiotics. A dose of 30 mg per day is needed. Higher doses should only be taken under supervision. Most useful if there is a lot of inflammation or cystic swellings.

Complementary therapies

Consider homeopathy and herbalism.

Miranda's story

Miranda was a very attractive and petite 42-year-old woman from America, who was trained as a nurse. She had married an Englishman and lived half her life in the UK. She came to the clinic as she was feeling generally low, and had a chronic skin problem. The PMS symptoms she had manifested themselves in terrible depression, mood swings and a near suicidal state of mind.

'I was a very health conscious person and considered myself to be relatively educated on the subject of diet. However, when I reached the age of 41 it seems I stopped ovulating and my general health suddenly went down hill. My previously clear facial skin broke out in painful spots and despite seeing many consultant dermatologists in both the UK and the US nothing seemed to really help. I was very depressed and tearful and the best my GP could offer was Prozac, which I took in desperation.

I had suffered from acne from the age of 16 and despite visiting dermatologists, beauty experts and black magic practitioners, and having swallowed every antibiotic known to man, nothing worked on a permanent basis. I was about to start a hospital supervised course of treatment that had possible bad side effects, but again could not be guaranteed to be permanently successful, when I decided to visit the WNAS.

I was taken off wheat, rye, barley and oats for a period of three months and I began to notice the improvement in my skin. I was also not eating red meat or dairy products, but was taking supplements of Optivite, zinc and Efamol. After approximately three months I incorporated rye bread into my diet without problems. After six months my skin was clear. Several months later I tried to reintroduce wheat into my diet with disastrous results. Even small amounts, i.e. in sausages, soup, casseroles, would bring me out in painful cysts. So wheat was completely removed from my diet, along with dairy products. I do eat red meat occasionally without ill effect.

I use soya products instead, which is really no hardship these days. I recently paid another visit to the clinic as my menopause has now begun, and was delighted to discover that soya products are a rich source of naturally occurring oestrogen. It is so wonderful to have clear skin and not feel ashamed to be seen without make-up. Even my mother, who suffered along with me for so many years, recently remarked that visiting the WNAS has transformed my life both physically and mentally.'

ACNE ROSACEA

This is a mainly facial rash that usually develops in middle-aged to elderly people. Like common acne there is a degree of skin redness, with papules (redheads) and occasionally pustules (yellowheads) but never blackheads. Flushing is prominent on the cheeks and nose and is usually made worse by alcohol. Sometimes the eyes become involved with redness of the eyelids and clouding of the vision in severe cases.

What your doctor can do

The main treatment is use of long-term, low-dose antibiotics, usually tetracycline, as given for acne vulgaris. Those suffering with eye symptoms as well will need special attention.

What you can do

- Avoid known aggravating factors; most commonly these are alcohol and anything else that may trigger a flush, like spicy foods and hot drinks.
- Try a diet low in amine-rich foods as used for migraine (see page 473). In sensitive individuals this type of chemical can affect the blood vessels in the head, triggering migraine, and the possibility exists that they also affect the blood vessels of the face too. This means avoiding cheese, chocolate, tea and coffee, and many other foods.

Complementary therapies

Consider homeopathy and herbalism.

Barbara's story

Barbara was a 33-year-old woman who developed an increasingly severe facial rash. Her undoubted good looks had been spoiled by a red, pimply looking rash that was distributed mainly across her cheeks, down her jaw line and onto her nose. Over a year ago this had been diagnosed as acne rosacea and had not responded to a course of antibiotics from her own doctor.

Close examination showed that there were possibly two types of rash. The typical acne rosacea was mainly on the cheeks but also there were some red itchy bumps along the jaw line. This latter type of rash we have seen in association with a suspected allergy to wheat.

Barbara was asked to follow the diet using the treatment for

migraine – avoiding all amine-rich foods as well as wheat, oats, barley and rye which may all contain gluten. She was also asked to take supplements of zinc and vitamin B.

Within three weeks there was an over 50 per cent improvement in the appearance of her rash. Interestingly, the itchy bumps had cleared almost completely and her skin felt much more comfortable.

The rate of her improvement was probably too quick for it to be anything to do with her supplements and it seemed that the avoidance of certain foods was the particularly important factor.

She reintroduced foods that had previously been excluded on a step-by-step basis and was able to identify those that had contributed to her rash in particular. It transpired that alcohol was a particular culprit.

Ageing

We now live for longer and as time passes there will be more retired people and fewer workers in the western world. Health-care services will be stretched and so it makes sense for us to implement self-help measures to preserve our fitness, health and physical appearance.

It is becoming rapidly obvious that the elderly, those of 65 and over, are all individuals, with varying levels of health. We are also beginning to identify factors that determine those who will age quickly. Factors associated with premature death or rapid ageing are:

- cigarette smoking
- excessive alcohol intake
- poor quality diet
- social deprivation e.g. living alone
- low levels of physical activity
- low levels of mental activity
- genetic factors, identified and unidentified

The genetic factor is interesting as we know that there are genetic predispositions to high blood pressure, heart disease and diabetes. Genetic factors may also play a small part in many other diseases. It is clear that there are interactions between a person's genetic predisposition and the effects of their diet, for example salt intake, and whether it raises blood pressure.

Overall intake of nutrients during the course of a lifetime may be an important factor. Interest is centred upon the antioxidants, vitamins, minerals and other non-essential dietary agents that protect tissues against highly reactive chemicals called free radicals. Free radicals are produced during the course of normal metabolic activity in all cells of the

body, and can damage tissues, causing chemical change. There are many protective mechanisms which minimise this damage and, as a result, these free radicals only last for minute fractions of a second. Certain nutrients help mop up these potentially damaging free radicals, including:

- vitamin C
- vitamin E
- vitamin A (both beta-carotene and retinol)
- B vitamins
- zinc
- copper
- manganese

If left unchecked free radicals damage the wall of the cell as well as its internal chemistry in a way that is potentially irreversible. The outward signs are deterioration in skin quality, changes in the eye such as cataract formation, some of the changes seen in arthritis, and the gradual development of atherosclerosis. Diets rich in foods containing the nutrients listed above seem to protect against cardiovascular disease and cancer, in particular. The simple message, therefore, is eat lots of fruit and vegetables, and limit your exposure to noxious chemicals, especially cigarette smoke.

Nutritional deficiencies in the elderly

It is in the extremes of life that we are particularly vulnerable to nutritional problems. Newborn infants, especially premature ones, and ill, elderly patients all have special nutritional needs. These are under-recognised and not easily provided for by a normal healthy diet and simple vitamin and mineral supplements.

A detailed nutritional survey of acutely ill, elderly patients conducted over 20 years ago in Yorkshire, England, found that not one patient had a completely normal nutritional profile. Nutrients that were commonly deficient included iron, vitamin B12 and folic acid, any one of which could cause anaemia, and there were also deficiencies of vitamins A, B complex and C, which could influence mood, muscle function and resistance to infection. Other studies have confirmed these findings and uncovered trace nutrient deficiencies including zinc, which helps resistance to infection, selenium, which is involved in antioxidant protection, and chromium, which may influence predisposition to diabetes.

The risk of nutritional deficiencies in this group rises with:

- history of poor diet
- high alcohol intake

- recent weight loss
- medical problems
- use of drugs, especially diuretics, antibiotics if prolonged use is required, steroids and digoxin, a drug used to treat heart disease.

What your doctor can do

- Be alert to the potential problems of nutritional deficiencies in the elderly.
- Look for signs of nutritional deficiency:
 - sore, smooth tongue, cracking at the corners of the mouth
 - peeling of the lips
 - flattened or upturned finger or thumb nails
 - excessively dry skin
 - easy bruising
 - heart failure
 - severe muscle cramps
 - depression
 - loss of appetite.
- Test nutritional status of ill and elderly patients. Simple blood tests for anaemia, measuring serum zinc, serum and red cell magnesium, and tests for the B vitamin deficiencies, especially vitamin B12 and folic acid, should all be on offer at local hospital level. More specialised tests should also be available.
- Advise patients about healthy eating, and in particular those older patients whose foods may need to be in semi-liquid form and easy to digest. High-fibre diets are inappropriate for the majority of ill, elderly patients. There should not be an over-reliance on sugar and refined foods, even those that are easy to consume. Good nutritious foods include all dairy products, eggs, ice cream (preferably organic, and made from wholesome ingredients), vegetables (especially if prepared as soup), meat (especially if minced), mashed potatoes with added milk or cream, stewed fruit, and fortified drinks which are very useful as meal replacements or between meals when additional calories are required.
- Finally, and most importantly, doctors should be prepared to prescribe nutritional supplements. Despite their age, the elderly do very well with the right treatment. Talk to your doctor regarding whether some supplements are available on prescription. As a general rule patients with proven deficiencies or known risk of deficiencies may receive nutritional supplements under ACBS (Advisory Committee on Borderline Substances) Exemption within the United Kingdom.

Problems of the Elderly and the Nutritional Answer

Recurrent upper respiratory tract infections	Zinc and strong multi-vitamins
Congestive heart failure	Strong doses of vitamin B complex
Osteoporosis	Supplements of marine fish oil, evening primrose oil and calcium (Efacal) daily, or calcium, 1 gram daily, and vitamin D, 400 IU daily, for the housebound elderly
Heart rhythm disturbance	Supplements of magnesium, 300 mg daily, and multi-vitamins
Muscle cramps	Supplements of magnesium and multi-vitamins
High blood pressure	Vitamin C, 1 gram daily, to reduce stroke risk, and supplements of magnesium, 300 mg, to lower blood pressure, especially in women
High risk of cardiovascular disease	Vitamin E, 600 IU daily, but not if receiving the anti-coagulant Warfarin
Diabetes	Supplements of chromium, 200 mcg daily if mildly diabetic, subject to approval by their doctor (see page 165, Diabetes)
Loss of memory	Ginkgo biloba if not on anti-coagulant medication

What you can do

This is given on the basis of the elderly person being a near relative to you, the reader of this book.

- Advise your relative's doctor about his or her recent diet.
- Discuss with your relative which types of foods they like to eat, that are nutritious and are easy to prepare.
- Make regular use of meal replacements when convalescing.
- Be prepared to administer supplements in a number of situations even if they are not prescribed by your relative's doctor.

As a general rule, higher doses of supplements may be needed initially, say for two to three months, until nutritional levels are normal, and then pills can be reduced to generally half the amount.

See also: Arthritis and musculoskeletal problems, Ischaemic heart disease, Osteoporosis, Diabetes and Dementia, plus Recommended reading and Standard references.

Allergy and Intolerance

The word 'allergy' simply means altered reaction, and it is used commonly by doctors and the public, but the two terms are often confused. The term 'intolerance' is also used to describe an adverse reaction of a similar sort but with a rather different basis as outlined below.

ALLERGY

The term is now properly confined to adverse reactions involving the immune system. This means that there are changes in the white cells or the antibodies produced by them. These reactions may be to:

- something that is breathed in, an 'inhalant' such as a pollen
- a food, and this can be almost any food
- a food additive, as in the case of colourings
- a drug given by mouth, injection or as a skin preparation
- an insect as with house dust mite allergy or wasp sting allergy
- an animal or their secretions e.g. cat saliva and rodent urine
- chemicals in cosmetics
- dusts e.g. wood or metals
- metals, e.g. jewellery, particularly earrings

The reaction may be immediate as in the case of hay-fever, or delayed as is often the case with allergies to foods.

INTOLERANCE

The term used to describe all other reactions that do not involve immune mechanisms. They are more common than allergies and can vary substantially in type. They involve mainly foods but can also occur with inhaled chemicals such as sulphites, which can trigger asthma. The mechanism of intolerance is fascinating and outside the scope of this book.

The main types are:

- simple irritants as with asthma and sulphites e.g. in wine
- toxic effects
- effects of chemicals found in some foods, e.g. intolerance of amines in the case of migraine
- metabolic effects of food as in reactive hypoglycaemia
- enzyme deficiencies involved in digestion as in intolerance of milk sugar (lactose) causing diarrhoea
- other enzyme deficiencies especially in the liver, as in the intolerance of fruit sugar

- metabolic effects of food that is spoiled or fermented
- the effects of food on bowel bacteria and flora

All of these are discussed in much more detail in the relevant parts of the book.

What causes them?

Nowadays it would seem that the majority of doctors are prepared to accept that allergies and even intolerances do happen from time to time. What is still not certain, nor indeed widely agreed, is the type of health problems that can be caused and how frequently adverse reactions of one kind or another occur.

Conditions caused by inhalant allergy

- asthma
- rhinitis (seasonal hay fever)
- rhinitis (non-seasonal)
- conjunctivitis – eye irritation

Conditions caused by food allergy

- asthma
- immediate reactions causing mouth, lip or facial swelling (angiodema)
- coeliac disease
- cow's milk protein allergy in children
- colitis in infants and occasionally adults
- Crohn's disease occasionally
- rheumatoid arthritis
- conjunctivitis

Conditions caused by food intolerance

- irritable bowel syndrome
- migraine headaches
- asthma
- rhinitis
- urticaria
- some types of food poisoning
- intolerance of certain carbohydrates, e.g. milk sugar (lactose), ordinary table sugar, fruit sugar
- hyperactive behaviour in children
- possibly mood disturbance in adults

All of these conditions except coeliac disease have a variety of other causes that need to be considered carefully by the doctor. Each topic is dealt with individually throughout the book. The Simple Exclusion Diet and The Strict Exclusion Diet see pages 460 and 466, will be useful.

See also: Asthma, Rhinitis, Coeliac disease, Rheumatoid arthritis, Irritable bowel syndrome, Migraine and Crohn's disease. Plus Recommended reading and References.

Anaemia

Anaemia simply means a lack of blood and there are many causes of this. Iron deficiency, the most usual underlying reason, is one of the most common medical conditions worldwide. Despite the prosperity of western society, it is a problem still often experienced by women of child-bearing age. Additionally, there are a large variety of other blood conditions, some nutritional, some moderately common and many rare, that can also cause anaemia.

Because of its importance, all hospital laboratories routinely measure the level of haemoglobin, the blood pigment which carries oxygen around the body. There have been many attempts to determine exactly what the normal haemoglobin level is in women, men and children. Definitions vary slightly and in practice the normal range for women is between 11.5 and 16.0 grams per decilitre (1/10 litre). Haemoglobin is carried around inside red cells, which in turn are produced from large 'cell factories' in the bone marrow, concentrated at the ends of the long bones, in the ribs and pelvis. The cells that produce red blood cells are also related to those producing white cells which are involved in resistance to infection, production of antibodies and minute cells called platelets which help in the prevention of bleeding. Occasionally certain blood disorders influence all three types of cell.

Red cells that carry the haemoglobin are actually dying cells. Unlike all other cells of the body they do not contain a nucleus 'brain'; nor do they have the ability to renew themselves, and thus usually have a limited life span of 120 days. During this time they carry oxygen from the lungs through the heart and off to the peripheral tissues such as the brain, muscles and skin where, after depositing the oxygen, they collect carbon dioxide. On the return journey through the lungs they release the carbon dioxide and pick up yet more oxygen. Such is the happy lot of the red cell.

The production of haemoglobin requires a number of factors. Iron is essential as this mineral is found in the structure of haemoglobin itself. Iron is absorbed in the first part of the small intestine, the duodenum. Vitamin B12 and folic acid are needed for the production of chemicals required for the making of the red cell envelope. Adequate protein intake, potassium, vitamin A and other B vitamins are also required but only rarely are deficiencies of these the cause of anaemia.

What are the symptoms?

As anaemia is a condition which comes on gradually, there is time for the body to adapt to it, and a sudden fall in blood pressure or symptoms of shock are rarely seen. The first signs may be:

- mild fatigue and slight paleness
- shortness of breath on effort
- palpitation and worsening of any pre-existing disease of the heart or lungs
- light-headedness, giddiness and buzzing in the ears
- poor appetite and nausea

Very often these are features of nutritional deficiency, especially of iron, as this is the commonest cause of anaemia. This in turn will result in its own symptoms including:

- a sore tongue
- recurrent mouth ulcers
- cracking at the corners of the mouth
- flattening and upturning of the thumb and fingernails
- split and brittle nails
- poor hair growth or hair loss, especially in women
- a blue tinge to the white of the eyes

It is also possible that mild iron deficiency with a low or normal haemoglobin can also cause fatigue, but not all doctors are agreed on this.

What causes it?

The main causes of anaemia are as follows:

- Lack of essential nutrients, especially iron, folic acid and vitamin B12.
- Increased blood loss from heavy periods or bleeding from the bowel. The causes of heavy periods include fibroids, hormonal disturbance and other gynaecological problems. The causes of loss of blood from the bowel include cancer of the colon or stomach, peptic ulcer (especially if aspirin or anti-arthritis drugs are also taken), and also bleeding from a hiatus hernia.
- Poor absorption of essential nutrients can affect the levels of iron, vitamin B12 and folate, either in tandem or with just one of these nutrients being deficient. Disease of the stomach, coeliac disease, pancreatic and small bowel disorders are all possibilities.
- Chronic diseases such as liver and kidney problems, severe arthritis, and chronic infection.

- Genetic disorders, such as thalassaemia which affect the production of haemoglobin. This is very common in Africa, people of Mediterranean origin, and the Far East. Conditions such as thalassaemia and sickle cell disease can, in their mild forms, produce a mild anaemia which may cause relatively little ill health, but in severe forms cause major anaemia in childhood.

Fortunately, even from the result of a simple blood test for anaemia a doctor can very rapidly ascertain the likely cause. This is because many tests on red cells, measures of white cells and platelets, and a test called the ESR that gives a general measure of inflammatory processes throughout the body, is also used.

What your doctor can do

- He can take a variety of tests. The first is a full blood count which measures the haemoglobin and looks at the shape and size of red cells. If the haemoglobin is low then further tests are required. One way is to measure the serum ferritin or some other test of iron adequacy (transferrin saturation), as a low serum ferritin will usually confirm iron deficiency. This is a simple test and is widely available. It is prudent to perform this in most women of child-bearing age presenting with anaemia. Some 13 per cent or more of this category of women had a reduced serum ferritin level in the last government nutritional survey performed in the UK in 1990.

Often tests measure serum vitamin B12 and red cell folate. These widely available tests, will need to be performed if a certain pattern of anaemia is present on full blood count. Lack of folic acid is likely to occur during pregnancy, as a result of certain blood disorders, malabsorption, or if the diet is very poor. Lack of vitamin B12 may occur after several years in strict vegans whose diet is deficient in this vitamin, in some types of malabsorption, or if the stomach is unable to produce the necessary agents that are required to absorb this vitamin from the diet. This condition is termed pernicious anaemia.

- The doctor may also investigate the cause of the anaemia by assessing the diet, possible blood loss from the gut (stool tests to detect minute quantities of blood may need to be performed but are not always reliable), assessment of symptoms that may suggest malabsorption, e.g. diarrhoea and weight loss, and assessment of menstrual flow. Women are notoriously bad at assessing how heavy their periods are. The presence of flooding severe enough to stain underwear, having to go to bed because of flooding, needing to wear a tampon plus towels are all rough but useful pointers to the menstrual flow being excessive (see page 377).

- In older patients, especially women after the menopause (and in most men), some attempt should be made to assess the possibility of gastrointestinal blood loss. This is particularly important for unexpected iron-deficiency anaemia, and may lead to early detection of colon or gastric cancer. Barium meal, barium X-ray and telescopic investigation of the bowel by a gastroenterologist may all be required.
- Treatment will be in the form of iron supplements, as ferrous sulphate taken by mouth. Occasionally iron will need to be given by injection but this should be extremely rare. Vitamin B12 will need to be given by injection if the deficiency is due to malabsorption, or in tablet form in the case of a vegan with poor oral intake. Supplements of folic acid can be prescribed separately, and doses several times the normal daily intake are recommended if there is any degree of malabsorption. Smaller supplements may need to be given in a variety of blood disorders where there is increased production (and destruction) of red blood cells.
- The treatment of any underlying disorder. This may require a referral to a bowel specialist, dietician or gynaecologist.
- Monitor treatment. If the assessment was correct there should be a rise in haemoglobin level often within two weeks of treatment. Other changes on a blood test should indicate that new red cells are being formed. Blood counts should continue to be monitored until the haemoglobin is normal and it may be prudent for a further check three months later to make sure there has been no subsequent fall.

Despite our knowledge of anaemia, and the ability to investigate patients thoroughly, sometimes the cause is not found. In one recent appraisal of patients with severe iron deficiency anaemia, no cause was found in some 36 per cent of them.

What you can do

- Go and see your doctor if you have any of the symptoms that are potentially attributable to anaemia, and any features that suggest you may be particularly at risk, such as heavy periods or poor diet. A past history of anaemia is an important risk factor too.
- Keep a diet diary for a week and take this along to your appointment. Do this as well if your doctor diagnoses anaemia. It will help aid analysis of your dietary intake of iron, vitamin B12 and folic acid.
- If you have heavy periods keep a record of the number of tampons and towels that you use, and the number of days you bleed in the menstrual cycle. Again this will help your doctor make a decision.
- If you are taking supplements of iron, never take them with tea, coffee, red grape juice or blackcurrant juice. These all contain tannin which

will inhibit the absorption of iron. You normally absorb 10–15 per cent of the amount of iron in your diet, and the same is true of iron supplements, although this rises if we are iron deficient. Taking an iron supplement with tea reduces absorption to a third of these values. Taking it with a supplement of vitamin C (100 mg or more) can double the amount of iron absorbed. A good way of taking your iron pill is with a glass of fruit juice or with a piece of fruit.

- Oxalic acid from rhubarb, spinach and beetroot can inhibit iron absorption, as can phytic acid found in wheat and bran. Limit your consumption of these foods.
- If your iron supplement is causing indigestion, constipation or diarrhoea, a change in the type, reducing the dose, and taking it with food, may all help minimise side-effects. In our experience side-effects are rare if patients take care in this way.
- For most people a simple iron supplement of ferrous sulphate 200 mgs, once or twice daily, will suffice. A variety of more specialised (and more expensive) iron supplements are available on prescription or through health-food stores. The over-the-counter preparations are usually much weaker, and larger doses may need to be taken in order to correct severe iron deficiency. Avoid supplementing with zinc until your iron levels have stabilised because these minerals compete for absorption.
- Do not take time-release iron supplements because the site of absorption is in the initial section of the small intestine.
- If you are deficient in vitamin B12 and need supplements, do not take supplements of folic acid until the vitamin B12 deficiency is corrected. If in doubt about this speak with your doctor. Large supplements of folic acid in a person with untreated vitamin B12 deficiency may lead to increased vitamin B12 problems causing nerve damage.
- Whatever the cause of your anaemia try and eat The Very Nutritious Diet (see page 437) or if vegetarian or vegan see page 455 for your appropriate option. As a general guide, foods that are rich in protein, either of animal or vegetable source, tend to be good sources of iron. Animal sources of iron are better absorbed, and may also enhance the absorption from vegetarian foods. So even allowing small amounts of animal products into a vegetarian diet increases the balance of this mineral.
- Take your iron and other supplements as recommended. You may well need to take the iron supplements for three months after the haemoglobin has risen to normal in order to build up iron stores and to ensure that energy levels rise to their optimum range.

Complementary therapies

There should really be no need of these in the treatment of anaemia.

Belinda's story

Belinda was a 38-year-old South African aid worker who had to spend several months in London as part of her work. On many occasions over the last few years she had been found to be mildly anaemic though this was never fully resolved despite taking iron tablets. Her periods were not particularly heavy. She did complain of mild fatigue, with poor hair growth, abdominal bloating, constipation and some premenstrual symptoms. In the past she had had breast cysts which were still sometimes a problem, and a few years earlier had had several uterine fibroids removed because of severe anaemia.

At the time she was first seen, she was still mildly anaemic, haemoglobin 10.7g (the normal range is 11.5 to 16.5). Other tests revealed that she was indeed iron deficient and there was a very low level for serum zinc. Her weight was steady at 48 kilos. It wasn't clear quite why she had these problems. We prescribed some iron supplements taken with vitamin C or fruit juice, supplements of zinc and multivitamins. This sort of supplement regime could certainly help her fatigue and poor hair growth. There was little clinical improvement in the first two months; she was therefore asked to follow a gluten free diet. This meant avoiding all wheat, oats, barley and rye, which she did most carefully. There was a gradual and gratifying improvement. Abdominal symptoms disappeared, her fatigue lessened, her hair growth improved and best of all her haemoglobin rose significantly well into the normal range at 12.5g. Serum zinc level became normal too. There was a query as to whether she may have been developing coeliac disease, but further tests for this fortunately proved to be negative. She felt better than she had for years. However, every time she tries to introduce wheat into her diet she experiences abdominal symptoms and increased diarrhoea. Hopefully she will grow out of her gluten sensitivity as time passes.

See also: Essential nutrients, Liver disease, Coeliac disease, Pancreatic disease and Irritable bowel syndrome, Recommended reading, References.

Anxiety

Anxiety in its mild form is a natural state associated with stressful situations, and is suffered by everyone at some time. The things people get anxious about include exams, interviews, relationships, finances, acts of violence and rabid dogs. Some degree of anxiety, which subsides after the event, would be considered to be appropriate, given the circumstances.

However, when the anxiety escalates and in some cases brings on panic attacks and palpitations (rapid or irregular heart beats), medical intervention is necessary.

When severe anxiety is present the whole body feels 'wired up'. The person finds it difficult to relax, over-reacts, feels tense, nervous, agitated and finds it difficult to concentrate. Sleep is likely to be disturbed, with periods of insomnia, and early-morning waking. The person may also experience a dry mouth, muscle tremors and diarrhoea, all of which are very distressing.

What are the symptoms?

Heart	palpitations and awareness of missed heartbeats discomfort in the chest
Chest	overbreathing pain in the chest
Muscular	aches and pains
Nervous System	shakes headaches dizziness tinnitus (ringing in the ears) prickling sensations poor concentration and memory
Digestive	dry mouth difficulty in swallowing indigestion excessive wind diarrhoea
Bladder	frequent need to pass water
Uterus	amenorrhoea – lack of periods period pains

There are three main types of anxiety which are quite distinctive:

General anxiety	which is continuous.
Phobic anxiety	which occurs from time to time, when in certain situations or places.
Panic attacks	which occur from time to time, but are not related to a situation or place necessarily; the response is often out of proportion to the situation.

Plus:

Premenstrual anxiety	which is experienced by some women.
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GENERAL ANXIETY

The causes of general anxiety are not fully understood, but it is thought that it could be attributable to a combination of any of the following:

- genetic disorders
- insecure relationships in childhood
- stressful events in life
- nutritional deficiencies
- possible food allergies

What your doctor can do

Your doctor can carry out physical investigations to eliminate the possibility that the anxiety is related to a physical disease or problem. An over-active thyroid, hypoglycaemia (low blood sugar) and, rarely, tumours of the adrenal glands can all be accompanied by symptoms of anxiety, as can psychiatric disorders like depression, dementia or schizophrenia.

Once pure anxiety has been diagnosed the treatment your doctor has to offer is mainly psychological:

- Setting your mind at rest is the first step, so that there is a clear understanding that the symptoms are not related to any major illness.
- Stress management advice, to help you to understand and recognise the trigger for your anxiety.
- If you are hyperventilating (overbreathing), you should be given instructions about how to breathe, by re-breathing expired air from a paper bag to restore the normal concentrations of carbon dioxide.
- You may be offered drug treatment like Valium, which produces rapid relief of anxiety, but this should not be prescribed for more than three or four weeks.
- Alternatively, anti-depressants are used to control anxiety, but they are a longer-term treatment and should only be considered as a last resort.

PREMENSTRUAL ANXIETY

The main symptoms of premenstrual anxiety are nervous tension, irritability and mood swings, beginning as early as two weeks before the period and becoming progressively worse as the period approaches.

There are several possible factors, both hormonal and dietary, that might cause it.

- Some doctors think that an excess of the hormone oestrogen or an increased sensitivity to it may trigger changes in brain chemistry, resulting in anxiety. The average diet, high in fat and relatively low in fibre, can increase the levels of this hormone.

- Also, high levels of oestrogen slow down the rate at which the stimulant caffeine is broken down by the liver. This is why some women become more sensitive to tea and coffee when they are pregnant or when taking the oral contraceptive pill.
- A lack of vitamin B and possibly the mineral magnesium can also cause changes in the chemistry of the nervous system, aggravating feelings of anxiety and irritability. Interestingly, it seems that some women and men who are prone to anxiety and panic attacks are more sensitive to caffeine and genuinely have a more sensitive body metabolism, which makes them very susceptible to the effects of a lack of vitamin B or magnesium.
- Kava kava is a herb renowned for its calming and sedative properties and has been used in traditional folklore medicine for centuries in the treatment of anxiety, depression and stress related disorders. The active components of kava are kavalactones, found in the fat soluble resin of the root of the plant. Whilst taking sedatives like Valium can induce unwanted side effects, including addiction, kava does not appear to present any such symptoms. However drowsiness has been reported in some studies. NB Although no side effects have been reported as a result of using standardised kava extract, research does show that it may interfere with levels of the neurotransmitter dopamine and worsen Parkinson's disease. Therefore, until more sound research is published, it should not be taken by anyone with Parkinson's.
- A comparison of caffeine consumption in Chinese nurses and workers in a tea factory revealed a strong association between increased caffeine consumption and the severity of premenstrual symptoms. We conducted our own survey in the United Kingdom with *Fitness* magazine, which was published in 1992. Three hundred and seventy-seven women took part. Caffeine consumption was nearly two and a half times higher in PMS sufferers compared with non-sufferers.
- A final and important factor is hyperventilation. This simply means over-breathing. Often when one becomes anxious it is natural to increase the rate and depth of respiration. This provides more oxygen to the bloodstream but also removes more of the waste gas carbon dioxide. This lack of carbon dioxide causes a change in the body chemistry which can actually aggravate or cause a variety of symptoms, including numbness and tingling in the fingers, hands and around the mouth, muscle cramps, headaches, light-headedness, increased anxiety, physical and mental fatigue, and confusion. The solution is to relax, reduce the rate and depth of breathing, and if symptoms are severe, to breathe in and out of a paper bag for several minutes. When these symptoms chronically occur, formal advice and breathing exercises may need to be given by a physiotherapist or psychologist.

Celia's story

Celia was a 31-year-old mother of two young children who had been suffering for years with mood swings that left her feeling frightened and depressed.

I'd be chugging along fairly normally, then, suddenly, I would burst into tears over nothing at all. My mood seemed to change from one hour to the next, and the frightening thing was that I had no warning it was about to happen – it was as if I just snapped. I went from feeling perfectly normal, to thoroughly depressed, and my patience threshold was non-existent. The slightest little thing would spark me off and I'd feel like thrashing out. I'd been suffering like this, three weeks out of four, for six years, since the birth of our first son, until I reached crisis point one morning whilst hanging out the washing. All I did was drop a sock on the floor, but I burst into tears. It felt like the end of the world and I was sure I was going mad.

In desperation I opened up to my husband, who was always supportive. We decided that perhaps I needed to get a part-time job, as I hadn't been out of the house whilst the boys were small. Now they were at school it seemed like a good idea, but I didn't manage to get a job and nothing changed.

I went to visit my doctor and explained about my wild moods and tearfulness. He was very sympathetic, but said he only had anti-depressants to offer me. I hate taking pills, but I was so desperate, I promised to try them for three months. I didn't feel I had any choice as by this time I had reached the point where when I woke up each morning I knew I couldn't face the day.

The anti-depressants drained me and left me feeling completely zombified. My quality of life was non-existent and I didn't even feel that I was fit to drive the children around. I tried to stop taking them, but my symptoms returned with a vengeance.

Finally, I thought that my only hope would be to see a psychiatrist, which I did. He asked me all about my sex life, and my marriage. And, as I talked to him it dawned on me that he wasn't going to be able to help me at all. The only thing wrong with my sex life and my marriage was that I was feeling ill. Sex hadn't been that great whilst my moods had been so up and down, but I knew it was not the cause of my bad moods. And so I renewed the prescription for the anti-depressants, and carried on taking them, feeling like a washed-out zombie for the following year. If it hadn't been for my husband and the boys I really think I'd have been suicidal. I can't believe that my husband didn't pack his bags and leave, I must have been so awful to live with.

My husband tried to cheer me up and found a dream house for us to move to, hoping it would pull me out of my problems. I thought long and hard about it, and told him I was going to throw the pills away, and somehow help myself. I booked some counselling sessions which helped a bit. But what really changed my life was an article I read in Family Circle magazine about a woman describing her mood swings. I read the article over and over again. I just couldn't believe it. She was describing precisely what I had been going through, and had cured her problem, not with pills, but by changing her diet!

I wrote to the organisation mentioned in the article, the WNAS, and I bought their book. They sent me a questionnaire asking me about my diet, lifestyle and moods. I was then provided with a special programme which involved changing my diet completely. I felt so awful the first week, which they said I would, I actually wondered if it was worth continuing. One morning at the end of the first week, I woke up feeling terrible, I made breakfast and crawled back in to bed. I stayed there all day, and when I woke up the next morning I felt fantastic. I hadn't felt that good for ages. I couldn't believe it. It was as if a dark cloud had been lifted from me.

The longer I was on the programme the better I felt. It has been five years now, and I feel wonderful. I'm lively, energetic and those horrendous and unpredictable mood swings have gone completely.'

PHOBIAS

The difference between phobic disorders and general anxiety is that the symptoms are intermittent and relate to specific situations. Phobias like agoraphobia (fear of open spaces), and claustrophobia (fear of closed spaces), can limit the ability of the sufferer to work or socialise easily. Possible phobias are many and varied. Some people are afraid of heights or needles, others are too nervous to socialise or attend a social gathering, and others are afraid to leave home or get into an elevator.

The most common phobias we see at the WNAS are agoraphobia and to a lesser degree claustrophobia. Sufferers feel terrified and threatened at the prospect of going out of the house, in the case of the agoraphobic, or being in a confined space, in the case of the claustrophobic. The fear is usually characterised by a panic attack with palpitations, dry mouth, muscle tremors, and in severe cases, fear of a heart attack.

Interestingly, almost 90 per cent of agoraphobic sufferers are women. We had contact some years ago with a marvellous woman who ran a national group for agoraphobic sufferers. From her research data we discovered that 91 per cent of her sample of 94 also suffered premenstrual syndrome.

Susan's story

Susan was a 20-year-old single woman who was suffering from claustrophobia. She worked at the House of Commons as a chef and found it particularly difficult to carry out many of the functions of her job because of her symptoms.

'My health had deteriorated over a period of years. My most frightening symptom was claustrophobia – I was particularly afraid of tube trains, lifts and the walk-in fridges at work which I needed to use on a regular basis as a chef. I also suffered with craving for sweet food, especially before my period, chocolate-related migraine headaches which meant I felt awful after bingeing, and I experienced panic attacks and depression.

My doctor had prescribed anti-depressants over a period of years, the last one I was given was Prozac. He also referred me to a psychiatrist for phobia therapy. I came across the book No More PMS! and was encouraged to read that other women experience phobias, especially in the two weeks before their periods. The book suggested the WNAS could help women with symptoms similar to mine, so I contacted them for help.

After completing a long questionnaire and diet diary I was asked what seemed like hundreds of questions at my first consultation. I was told to eat little and often and to cut out all junk food, including chocolate, cakes, biscuits, sweet foods and cola-based drinks. Additionally I cut out caffeine and wheat. I took supplements of Optivite and Normoglycaemia and started to exercise.

Within three months I was off the anti-depressants, my phobias had completely gone and so too had the migraines and the premenstrual cravings for food. Lifts were no longer a problem and I had no trouble going in and out of the fridges at work. I felt so well, better than I ever hoped. I also lost just over 6 kilos in weight without dieting. I started my treatment four years ago. I must admit I have had a few lapses along the way, particularly when I'm on holiday, but at least I know how to get myself back in to tip-top shape again afterwards.'

What your doctor can do

He can refer you for some behaviour therapy. This is the usual treatment, and there are a variety to choose from, including desensitisation and cognitive manipulation. Essentially there are different methods of getting the sufferer to confront their phobia, either by talking to themselves, or by facing the phobia head on in the company of a therapist, or others who have no such phobia.

In addition he may offer you some of the options listed for general anxiety (see page 67).

Harriet's story

Harriet was a 41-year-old mother of three who had been taking anti-depressants for 24 years to ease her agoraphobia and panic attacks.

'I first had my first panic attack when I was 16 following a dental abscess. Looking back, that was the start of my agoraphobia, although I didn't realise it at the time. First of all my doctor put me on iron pills – but when my test came back in the normal range, I was then given tablets for my nerves. I can't remember the name of the first two, but they seemed to make my panic attacks worse. Within a short time I was prescribed Valium, at first 15 mg per day, increasing to 30 mg per day, which I stayed on for 24 years. The Valium knocked me out, I was like a zombie. They seemed to ease the panic attacks initially, but gradually I needed more and more pills to keep the symptoms at bay.

For the rest of my teenage years my social life was affected as I was unable to go out unaccompanied. I had a boyfriend for a while, but the symptoms of agoraphobia made me afraid to go out and he got fed up waiting around for me. I met my husband at a dance when I was 19. He didn't mind staying in, and we eventually got married when I was 21.

I had our first child when I was 23, and the pregnancy was followed by postnatal depression. I had such severe panic attacks after the birth every time I went into town, my horizons got smaller and smaller until eventually I was housebound and frightened to go through the front door. I couldn't even go out to do the food shopping. When our son was five he developed cancer in his leg, which I obviously found very stressful. He did survive thank goodness, but the stress of it left me with obsessional neurosis, on the top of my agoraphobia. It was a turning point for me. I just sat in a chair all day, didn't bother to cook or clean the house.

I eventually had two more children – but I was so afraid during my pregnancies as I felt the Valium might harm the unborn children. I managed to cut down to 20 mg of Valium per day during my pregnancy, but I was too scared to cut down any more as I didn't know how to do without them. I was prescribed a hormone, Duphaston after the third child, but it did not make any difference.

My husband resorted to working long hours as he couldn't cope with me. Fortunately the children's school was over the road from our house – I could just about manage to get to the pavement, but I couldn't cross the road as I felt so dizzy. The Valium prescriptions

just kept coming, I'd be given 100 pills at a time without ever being seen by the doctor.

After 24 years, in desperation, as my symptoms had become worse before my period was due, I sent my husband out to find a book on premenstrual syndrome, and he came back with No More PMS! My doctor then offered me beta blockers and said they weren't habit forming, but I didn't want to take any more drugs. I decided to follow the recommendations in the book and to come off the valium. I contacted the WNAS and had a telephone consultation.

Coming off Valium was hell. The withdrawal symptoms were like nothing I had ever experienced before. Within six weeks of following the WNAS programme I was feeling human again, and much more like my old self. I even made an appointment to get my hair done. I felt on top of the world. Then I woke up one day feeling really angry and resentful, as I realised I had lost 24 years of my life. I can't even remember the children growing up and I feel so sad about that. My doctor was clearly ignorant, which upsets me greatly, as I can never replace those years.

I have been better for three years now. I am still having some counselling to deal with all the traumas in my life, but the end is in sight. I now cope well with my family and my home, and am getting involved with a local medical charity. Today I am catering a party for 100 guests to celebrate my father's 90th birthday tomorrow – I couldn't even have dreamt about doing that four years ago! I am so grateful to the WNAS and am trying to persuade them to open a centre in Glasgow as, in my experience, most women don't know that there is help available.'

PANIC ATTACKS

These can be very frightening episodes, which come on suddenly, apparently unprovoked, unlike phobias. The symptoms can be similar to the general anxiety symptoms, but in addition are usually accompanied by palpitations, which often cause additional anxiety about the possibility of heart disease. In the past this disorder was referred to by heart specialists as a heart condition known as 'effort syndrome'.

Prior to the panic attack the brain sends a message to the adrenal glands which causes an adrenaline surge, sometimes known as the 'flight and fight' mechanism. The anxiety that a medical emergency is impending is so severe that it sets up a vicious circle, leading to physical symptoms, which then justify the fear of physical problems, which then lead to more anxiety, which causes the panic attack.

Once again panic attacks are suffered by many women in their premenstrual phase. In a survey the WNAS conducted on 1,000 patients it emerged that 91 per cent had previously suffered with anxiety before their periods, and in severe cases, sufferers often had panic attacks leading up to their periods.

Adrienne's story

Adrienne was a 22-year-old student nurse who was very frightened by the onset of severe anxiety and panic attacks. Her mother brought her to the clinic after seeing a television programme that featured the work of WNAS.

'My symptoms came on suddenly when I was 21. We had moved to Sussex and so I was feeling a bit isolated from my friends, plus I had begun a nursing course during that year which necessitated living away from home. My Grandad died that year, too, which I found upsetting as we are a close family.

At times my symptoms were uncontrollable. I became very depressed, withdrawn and anxious. I just felt like hiding in my room. I was verbally aggressive towards my family and refused to eat when I was depressed. My head used to pound so much it felt like it was going to explode. I was very afraid, and dreaded my symptoms which were considerably worse for two weeks before each period.

At first my doctor suggested vitamin B6, which didn't help. Then I was put on the Pill, which made me feel bloated and weird in the head. I was also given Duphaston and antidepressants, and eventually Estraderm patches which made my symptoms worse, and I now discover are for menopausal symptoms.

I had to give up nursing as I couldn't concentrate or absorb anything. I returned to my family home where I either sat on the sofa all day, on a good day, or hid away in my room. My family were clearly distraught by the situation, but at a loss to know what to do for me. One day whilst sitting on the sofa I happened to see a WNAS patient on a TV chat show. When she described her former symptoms it sounded just like she was describing me!

My mum went straight out and got me the book they mentioned, which I read from cover to cover without stopping. I got started on a self-help programme immediately and made an appointment to attend the WNAS clinic. I stopped all the hormones and antidepressants and was given a diet, exercise and supplement programme to follow, which was very different from my previous way of eating. My mum helped with the shopping and the cooking which made it a lot easier for me.

Within a month my depression and anxiety had vanished which was such a surprise. Unfortunately, as I thought I was better I didn't follow the programme strictly for the next month and ended up feeling almost as bad as ever. I realised I had to follow it to the letter and got my act together again. Within two months all the symptoms had disappeared again. I decided not to return to nursing for the time being, but instead got a job with an Insurance company, working with lots of other young people in the area.

That was a year ago, and I haven't had a bad day since. I keep to my diet, still take some supplements, regularly exercise, practice relaxation, and every fortnight I have some reflexology. Without my symptoms I felt more like socialising, so I have developed a circle of friends. I feel like a completely different person, with a future, and am so grateful I found the WNAS.'

What your doctor can do

- Offer the options discussed for general anxiety.
- Prescribe high doses of benzodiazepines, like Valium. Prolonged treatment is unwise though as it leads to dependency, as you will see from Harriet's experience.
- Give antidepressants such as one of the Tricyclic group or paroxetine (seroxat) are used to control symptoms in the longer term, but it may be given in high doses with the risk of many side-effects. The problem with this treatment is the relapse rate has been found to be high when the medication ceases.
- Refer you to a psychologist or psychiatrist for some cognitive therapy, designed to change the fears and physical symptoms, which predispose the panic attack. This involves coming to terms with the irrational basis for your fears over several sessions.

What you can do

- Follow the instructions for The Simple Exclusion Diet on page 460. This will keep you busy for at least eight weeks.
- Take regular exercise, at least four good sessions per week to the point of breathlessness. If you can't manage to get out of the house use a skipping rope and an exercise video to build up your stamina.
- Try to practice relaxation each day, deep breathing, meditation, yoga, or anything you find therapeutic (see page 29).
- Take a generous dose of multi-vitamins and minerals daily, plus extra B vitamins, and vitamin C.
- Get some help to sort out the stress in your life, either from a friend or a therapist.

- If you suffer with premenstrual syndrome, follow the instructions on page 394, plus refer to the book *No More PMS*.
- Take a herbal ‘tranquilliser’ like Valerina Day which is an age-old herb used for the symptomatic relief of tension and irritability and helps cope with the stress and strain of modern living.
- Kava kava is a herb historically used for inducing a calming and relaxing effect. As noted above, kava has been found mostly to help reduce tension and improve mood in people who complain of stress, anxiety or certain phobias. The herb appears to relieve mild anxiety in less than one hour, but studies have found that it typically takes a week to exert a meaningful effect. In Germany, Kava remains one of the most popular doctor recommended remedies for anxiety.

Complementary therapies

There is a good chance that you will find additional help from many of the complementary therapies, and again it is a matter of choice. There are numerous homeopathic remedies to try, depending on which type of anxiety you suffer from. A medical herbalist will mix a prescription to suit your symptoms if you feel you need more than the herbs mentioned in the self-help section.

Acupuncture is particularly good at slowing down the energy flows in your body, and is undoubtedly worth a try (provided you don’t have a phobia relating to needles). Other therapies well worth a try would be cranial osteopathy, to ease the tension within your body, and any sort of gentle massage, preferably with relaxing aromatherapy oils. Yoga, meditation and any of the techniques mentioned in the information on stress (see page 25).

See also: References.

Arthritis and Musculoskeletal Problems

There are many different types of arthritis and conditions affecting muscles, ligaments and bones. We do not intend to cover them all but will deal with the common ones and those where nutritional factors seem to play an important part. From the early part of the 20th century, many arthritic conditions have been treated by dietary change by both conventional medical practitioners and naturopaths. The last 50 years have seen the development of many drugs – anti-inflammatory agents, steroids, immune-altering drugs and others. These are effective but often only partially so, and frequently cause side-effects. Non-toxic effective treat-

ments such as dietary change and nutritional supplements are not only popular but can be highly effective. The last ten years have seen the publication of many studies re-investigating the worth of the older dietary and nutritional treatments which have proven to be effective (surprising to the conventional doctors only).

There are also many rare types of arthritis that are associated with a variety of other illnesses, including psoriasis, colitis and Crohn's disease, some types of gastroenteritis and other infections. Treatment both medical and nutritional is very much as for rheumatoid arthritis. Exclusion diets are an unknown quantity in such patients.

RHEUMATOID ARTHRITIS

This is a common type of chronic arthritis where there is much swelling and pain in both small and large joints. The hands, especially the large knuckle joints, are most commonly affected and this usually involves both sides in a symmetrical pattern. Stiffness of these or other joints, which is worse in the morning, is a typical feature. In other patients one or more of the larger joints are involved, such as an elbow, wrist, knee or ankle joint and this pattern of arthritis may be less aggressive than that in the hands.

The joint swelling, which is often warm to the touch, is due to considerable inflammation of the synovium. This is a thin layer of tissue that surrounds many joints and is responsible for the production of the lubricating synovial fluid. Thus in rheumatoid arthritis much of the swelling is due to an increase in this fluid. Sometimes other parts of the body such as the lungs, eyes and skin are involved in this. The inflammatory process involves a mixture of white cells and proteins called immunoglobulins. These are antibodies which, instead of being directed at infecting organisms, are actually directed at each other. A sort of immune mutiny. The 'fight' as it were, takes place mainly in the joints and involves many other inflammatory chemicals: the equivalent of the body's police. The real question is what triggers this fracas in the first place, and why it becomes so chronic. Tests for rheumatoid arthritis check for the presence of these 'self-directed' immune proteins.

Possible triggers are infections, food allergies and genetic factors.

Who gets it?

About 1 per cent of the population world-wide suffer from this form of arthritis, with women being three times more likely than men to suffer. The commonest age of onset is in the forties, and it is more likely to start

in the winter months. The onset is often gradual, with stiffness present for several months before the arthritis is obvious. Sometimes there is a sudden and severe onset.

There can be a strong family element especially for the more aggressive forms of this arthritis. Some groups are especially vulnerable e.g. some American Indians probably because of genetic factors. As a rule the cause remains an enigma. Though a recent study suggested that consumers of cooked vegetables and olive oil were less likely to suffer.

What your doctor can do

Investigations to determine the type of arthritis, the presence of any associated anaemia or other problems are all important and are easily assessed by the use of blood tests and X-rays. Treatment is usually considered on a step-wise basis, with simple treatments being used first and the more powerful drugs being reserved for aggressive disease. Often the side-effects of these drugs limit their long-term use.

- Painkillers such as paracetamol and codeine are used for mild disease.
- Anti-inflammatory drugs called NSAIDs (non-steroidal anti-inflammatory drugs). There are many types, including simple aspirin, all of which are of similar efficacy. Delayed release preparations and suppositories are useful. The most serious side-effect is bleeding from the stomach which is much more likely in older patients. This type of medication does not stop the progress of the disease, however, and it is worth noticing that aspirin may increase the need for vitamin C.
- Gold, D-penicillamine, hydroxychloroquine and sulphasalazine are all termed second-line drugs, used when NSAIDs are not effective enough and if many joints are involved. D-penicillamine may cause deficiencies of zinc and vitamin B6.
- Steroids are very effective but high doses produce many unwanted effects especially osteoporosis or bone thinning and depression. Low doses, 10 mg or less per day of prednisolone, are effective and much less risky. Eating The Very Nutritious Diet (see page 437) that is low in salt and high in calcium, possibly with supplements may reduce the side-effects of long-term steroid use.
- Other drugs include immune altering and anti-cancer drugs. These were considered to be heavyweights and have the ability to alter the progress of the disease, but if used in small doses and carefully monitored, have the potential to produce considerable benefit.
- Surgery is sometimes needed to repair or replace damaged joints and tendons.
- Antibiotics are perhaps worth a final note as recent scientific research has lent support to the old idea that tetracycline antibiotics are some-

times helpful in this condition. The original theory put forward over 30 years ago was that the arthritis was due to an infection. Further research will hopefully tell us more.

What you can do

A lot, so don't give up. Rheumatoid arthritis is often a long-term condition and usually a conventional or complementary treatment will work. The real difficulty is knowing which is right for a particular individual. There is much merit in combining approaches, especially use of a NSAID with either low-dose steroid or a second-line drug and dietary manipulation and use of nutritional supplements especially fish oils.

In approximate order of importance consider the following:

- Lose weight if you are obese. Very few dietary treatments will work if you are significantly overweight and nothing will help your knees and hips as much.
- Consider an exclusion diet. Allergy to some foods is now widely accepted as occurring in rheumatoid arthritis. Reactions to milk, cheese, wheat, other grains and artificial colourings are all documented. You could follow The Simple Exclusion Diet yourself for three weeks or go through The Strict Exclusion Diet with supervision (see pages 460 and 466). If there is a good response, then the careful re-introduction of foods at possibly weekly intervals is needed to determine which, if any, contribute to the disease process.
- Supplements of fish oils have been shown to be effective in several trials. Large doses need to be taken for three or four months. They should provide 1.3 g of DHA (Docosahexaenoic acid) and 1.3 g of EPA (Eicosapentaenoic acid) per day. This approach is best combined with either The Very Nutritious Diet (see page 437) or The High Essential Fatty Acid Diet (see page 446).
- Supplements of zinc (30 mg per day) or selenium (100-200 mcg per day) have shown some benefit in some but not all studies. Again they are most likely to help if you are deficient in these nutrients and are best combined with a multi-vitamin supplement and a good diet.
- A vegan diet can be helpful, possibly because it reduces the intake of saturated fats. One of the reported successful vegan diets also excludes wheat which may explain some of its benefit.
- Other supplements might benefit. They include calcium pantothenate 2.0 g daily, New Zealand green lipped mussel extract, and possibly some plant extracts with anti-inflammatory effects such as pine bark extract, pycnogenol.

Most of these treatments will take several weeks if not two or three months to be effective.

Juliet's story

Juliet was a 35-year-old professional woman whose psoriasis had begun several years earlier. The arthritis had only begun in the last year, but she remembers that her joints had often been stiff as a child. Now she had painful swelling of the small joints in her hands and pain in her feet that limited her social activities, but had not stopped her from working. She had to take an anti-arthritis drug every night to help to get a good night's sleep and to minimise the degree of stiffness in the morning. The psoriasis was relatively mild, and she only used occasional ointments to control it.

She had observed that a number of foods appeared to aggravate the arthritis including red wine and cheese. She was advised to begin an exclusion diet taking care that she had a good overall nutrient intake as her weight was low at under 50 kilos. These measures led to further improvement in her joint pains, and the careful re-introduction of foods identified several that caused her symptoms to worsen, including beef and dairy products.

She had to avoid these long-term and therefore took a calcium supplement, which was vital in view of her low body weight and her intention to become pregnant.

She was further helped by taking regular supplements of high strength fish oils. Tests had shown that her blood levels of these anti-inflammatory agents were low. She took them in conjunction with supplements of multi-vitamins and selenium. These needed to be modified later on when she became pregnant. She also took a supplement of folic acid before conceiving.

Her arthritis was very well controlled by changes in her diet together with nutritional supplements. Eventually she had a very successful pregnancy. She continued to take supplements of vitamin B, fish oil and calcium during pregnancy and when breast-feeding to ensure a good balance of these nutrients.

OSTEOARTHRITIS

This is a common type of arthritis where there is loss of the protective surface of cartilage over the ends of bones, with subsequent changes to the underlying bone. This usually involves an increase in the amount of bone, leading to swelling and distortion of the joint, most easily seen in the joints at the ends of the fingers and in the knees. As well as these joints, the hips, base of the thumbs and the spine are commonly affected.

Pain and swelling are the most noticeable complaints and stiffness in

the hands is usually less of a problem than with rheumatoid arthritis. The arthritis is often mild and limited to the fingers where despite a degree of deformity there may be little disability. When a hip or knee are affected the loss of mobility may be considerable, especially if the sufferer is overweight.

Who gets it?

Age is the main risk factor with some 10 per cent of the over-60s being affected. Osteoarthritis of the fingers is more common in women than men, and is particularly likely to run in families. Damage to a joint at any time in the past, excessive sporting activity or repetitive occupational use can all increase the risk of this type of arthritis, though this only applies to a minority of cases. Obesity is strongly linked to osteoarthritis of the knee and to a lesser extent of the hip. This type of arthritis is thus often considered as a degenerative disease which slowly evolves over many years rather than one where there is a clear-cut trigger to the inflammatory process.

What your doctor can do

There is no cure for osteoarthritis. There are, however, many ways to control or lessen the pain and reduce the degree of disability.

- Assessing the disease and disability normally involves a few simple blood tests to exclude other types of arthritis and X-rays to assess the damage to the most problematic joints.
- Pain control using NSAIDs (non-steroidal anti-inflammatory drugs) can be highly effective. Their use is often limited by the gastrointestinal irritation and internal bleeding that they may cause. Paracetamol is a less effective alternative.
- Physiotherapy, use of a walking stick, adapting shoes, and a splint to support a joint such as the knee are all useful measures.
- Surgery is needed for those with advanced disease of the knees and hips where joint replacement can be highly successful. It should be remembered that the success rate is not 100 per cent. Other surgical measures are useful for deformed joints.
- Other measures to control pain are important especially when there is widespread joint involvement. Sometimes the pain comes from the muscles around the joints, especially in the spine and lower limbs. In spinal arthritis, use of a Trans-Dermal Electrical Nerve Stimulator (TENS) machine may help reduce the pain, in much the same way that acupuncture does.

What you can do

- Lose weight if you are overweight and especially if the knees or hips are involved. The improvement from this can literally be (un)staggering.
- Exclusion diets are not as a rule helpful in the way they are with rheumatoid arthritis. Occasionally they are worth considering in younger people with recent onset of their disease, and where there is a lot of swelling around the joint. This picture would suggest a high degree of inflammation rather than degeneration. The authors have seen both sensitivity to wheat and dairy products in such patients.
- Improve muscle strength and reduce muscle pain. This is an under-emphasised aspect of care and applies especially to those patients where the hip and spine are affected. The pain of the arthritis leads to inactivity, which results in more muscle weakness leading to increased disability and pain. The solution involves increasing physical activity (despite the pain) and improved nutritional state to help muscle function and strength. The most important nutrients in regard to the latter are magnesium and potassium, lack of which leads to muscle weakness and spasms, and vitamin D, a deficiency of which is most likely in those aged over 75 years and the housebound. To improve the balance of these nutrients try eating The Very Nutritious Diet (see page 437), and take supplements of a multi-vitamin and 250 mg of magnesium per day.
- One study suggested that supplements of ginger may be mildly effective. Other supplements could be beneficial for some but there are few studies. As in rheumatoid arthritis, correcting a deficiency of zinc or selenium, and providing a supply of fish oils and antioxidants such as vitamin E and beta-carotene could have anti-inflammatory effects.

Latest research looks at the benefits of glucosamine, a substance that occurs naturally in the cartilage. As we age we lose some of the glucosamine and other substances which results in joint aches and pains, and in more severe cases, arthritis. Part of the function of glucosamine is to enhance the synovial fluid, which lubricates the joints, and it is also responsible for joint repair. It therefore has an essential role in the structure and function of the 'glue' which holds cartilage tissue together, and its deficiency can lead to cartilage degeneration.

Several clinical studies have shown that glucosamine sulphate, which is the most effective form of glucosamine, taken at a dose of 500mg three times a day, produces significant improvements in the symptoms of pain, joint tenderness and swelling.

The evidence for the use of glucosamine in the treatment of arthritis is now so strong that the World Health Organisation has accepted glucosamine as a superior long-term strategy and officially classified it as a slow acting drug in the treatment of osteoarthritis.

Glucosamine needs to be taken daily in conjunction with another substance known as chondroitin, which attracts nutrient-rich, shock-absorbing fluid and stimulates the production of cartilage and collagen. Chondroitin works by protecting the cartilage from breakdown by certain enzymes, which cut off the transport of nutrients necessary for healthy joints.

Other supplements to reduce the inflammation and swelling are favoured and include boswellia, bromelain (an enzyme naturally occurring in pineapple), curcumin (the active ingredient in turmeric) and ginger. Boswellia has a particularly beneficial anti-inflammatory action similar to conventional non-steroidal anti-inflammatory drugs, without the side-effects. Curcumin is a potent anti-oxidant that reduces inflammation by lowering histamine levels.

Noreen's story

Noreen had to give up her work as a cleaning lady at the tender age of 64 because of increasingly severe pain and swelling in the small joints of her hands. This had begun over the previous year and investigations by her own doctor had not shown any gout or rheumatoid arthritis. The picture of change was typical for osteoarthritis for which she had been prescribed a NSAID drug. This had helped but had not controlled her pain and discomfort.

She ate an excellent diet, was a non-smoker and a non-drinker and the only abnormality was that she was a little overweight at 76 kilos. She was asked to begin a weight-reducing diet and take some cod liver oil supplements whilst WNAS awaited the results of some nutritional investigations. These showed a surprisingly low level of zinc, 7.6 mmols per litre (11.5–20). Supplements of zinc and multi-vitamins were added to her diet and within three months her zinc level had returned to normal. There was a surprising degree of improvement in her pain eventually getting to a point where she was able to stop her anti-arthritis drugs completely. She continued on a small dose of zinc, multi-vitamins and fish oils as well as keeping her weight below 76 kilos.

See also: References.

GOUT

Though less common than rheumatoid arthritis and osteoarthritis, gout is still an important cause of joint pain and swelling. It affects both men and usually only relatively older women. It is highly responsive to treatment. Gout is due to an accumulation of crystals of sodium urate for uric

acid, which is derived from the breakdown of certain foods and chemicals in the body called purines. The level of uric acid rises in the blood and then precipitates out around various joints, often as a result of relatively minor trauma, and set up an inflammatory reaction. Typically it is the big toe joint that is first affected and the ankle, wrist, elbow, knee and hands are often involved later on.

Who gets it?

It is more common in men who may be affected at a relatively young age. Obesity and alcohol consumption play a large part in its development. In older people, deteriorating kidney function and use of diuretics (water tablets) increase the risk. Accumulation of the toxic mineral lead and certain chronic blood and other diseases are also known predisposing factors.

What your doctor can do

Firstly treat the acute attack, which can be severe.

- Drugs such as NSAIDs (non-steroidal anti-inflammatory drugs) in large amounts or colchicine, a drug derived from the crocus, are very effective.
- Aspirin, except in high doses, can actually make matters worse.
- In the long term, after the acute attack is over, use of the drug allopurinol, which prevents the build up of uric acid, is needed especially when the attacks are recurrent and there is an inadequate response to self-help measures. Occasionally damage to the kidney also occurs and more specialised treatment is needed.

What you can do

- Drink plenty of liquid, preferably water, during an acute attack.
- Lose weight if you need to. Take care, as crash or starvation diets can raise the level of uric acid.
- Cut down on alcohol especially beer, as this is rich in the purines that are converted into uric acid.
- Avoid purine-rich foods: liver, kidneys, sweetbreads, fish roe (including caviar).
- Supplements of vitamin C, at a dose of 4 g per day, help lower blood levels of uric acid and increases its loss in the urine.
- Eicosapentaenoic acid (EPA) derived from the Omega-3 series of essential fatty acids limit the production of pro-inflammatory mediators otherwise known as 'leukotrienes' which are responsible for the inflammation associated with this condition.

- Supplements of zinc and magnesium should help in theory, but their effect is probably not great.
- For some, further dietary advice and restriction of fructose, fruit sugar, might be needed.

ANKYLOSING SPONDYLITIS

This is a type of chronic arthritis that affects mainly the spine and lower back area. The sacro-iliac joints where the spinal column joins the pelvis are frequently affected. The illness may be accompanied by inflammation in other parts of the body notably, the eyes and the bowel.

Who gets it?

Mainly men, but a few women do too. It usually first affects patients between the ages of 20 and 40. Symptoms of low back pain and increasing stiffness may be present for several years before a diagnosis is made.

What causes it?

The cause is unknown except that there is a strong association between this type of arthritis and several genetically determined markers that are present on white cells. The chemical nature of these particular markers called HLA-B27 (Human Lymphocyte Antigen -B27) is similar to chemicals produced by a certain bacteria called *Klebsiella* which can be present in the normal human gut.

What your doctor can do

There is no cure. Usually treatment centres upon anti-inflammatory drugs, and physiotherapy and exercises to maintain mobility of the spine.

What you can do

This is at present uncertain. There has been a suggestion that dietary changes that would discourage the growth of the *Klebsiella* organism in the gut could be helpful. Such a diet was low in certain carbohydrate-rich foods, but more work is needed before we know if it is effective.

Anti-inflammatory supplements and a diet rich in EFAs would seem to be a reasonable and not too arduous an approach. Try multi-vitamins with zinc and selenium. Supplements of fish oils might help as they do for rheumatoid arthritis.

FIBROMYALGIA

Fibromyalgia is a relatively new term which replaces the old term fibrositis. It is a common condition characterised by tender painful muscles, most usually those around the shoulders and neck. Tender nodules or lumps can sometimes be felt in the affected muscles. Examination of these nodules reveals muscles whose regular anatomy is distorted with a mild degree of inflammation. Part of the problem appears to be a failure of the muscles to relax properly. This results in increased tension and pain in the muscles. Some research suggests that a relative lack of growth hormone factors from the pituitary gland may be to blame.

Who gets it?

It most commonly affects young to middle-aged women. It does not follow trauma, nor is it related to excessive use or arthritis.

What your doctor can do

- Prescribe simple painkillers but these are not very effective.
- Prescribe a small dose of an antidepressant called amitryptiline. This has pain-killing properties and is reasonably effective. Worth considering if sleep is disturbed by pain as it can help sleep if taken in the evening.
- Test to exclude other types of muscle inflammation or arthritis.

What you can do

- A massage often helps; try using some relaxing aromatherapy oils as well (see page 31).
- Heat is also helpful, such as a hot water bottle, a hot towel or a hot pad which can be easily applied to the painful area, or sunbathing.
- Supplements of magnesium can be very useful. We think of muscles as being able to do work by contracting. Every time a muscle contracts it then needs to relax before it can contract again. Muscles are not like pieces of elastic, as the process of relaxation is an active one needing energy and the mineral magnesium. Low levels of this mineral are known to occur in those with fibromyalgia. So you can try supplements of magnesium, about 300 mg per day, in combination with The Very Nutritious Diet, which is low in salt and reduced in calories if you need to lose weight (see page 437).

- Exercise helps. It may not feel like it initially, but provided your symptoms are not too severe, gentle exercise, especially swimming, can be very helpful. In the long term, those who do exercise regularly suffer less from this painful condition.
- Osteopathic or chiropractic treatment can be helpful to correct any displacement in the spine that may be triggering the problem.

These treatments often take several months to work. You can combine the self-help measures with painkillers if necessary.

Jacqueline's story

Within the two years before her 40th birthday Jacqueline was diagnosed as having an early menopause needing HRT, had a low bone density and a tendency to develop osteoporosis. She had experienced excessive weight gain with fluid retention, but all this was not bothering her as much as her feeling of fatigue and muscular aches and pains. Eventually an under-active thyroid was diagnosed and treated, but the level of fatigue and muscle pain continued unchanged. Her HRT was well managed, her osteoporosis treated and though on paper she should be doing well, still her symptoms of fatigue and muscle pains continued.

Her weight blossomed to 79 kilos from previously having been below 70 kilos.

Some nutritional tests showed that she had a very low red cell magnesium value of 1.82 mmols per litre (2.08–3.00). Her levels for a number of other minerals including zinc and potassium were borderline. It appeared she was not just having difficulty hanging onto calcium which is important for her bones, but the low magnesium almost certainly would be affecting her muscle function and fatigue.

A weight-reducing, low salt, high calcium, high magnesium nutritious diet was followed together with substantial supplements of calcium, magnesium and multi-vitamins. There was no quick improvement. However, over four months there was a gradual improvement in her energy level and the muscle aches and pains diminished significantly. She was still predisposed towards getting fluid retention too easily, developing fluid retention if she consumed any salt in her diet.

Her need for thyroid hormone and HRT continued and probably will for many years, but now she experiences the full benefit from them, perhaps because some of these nutrients interact with the action of these hormones. She will need calcium, magnesium and vitamin supplements long-term in order to maintain her health.

MUSCLE CRAMPS

These are simply episodes where a muscle, most often in the leg or hand, contracts and fails to relax. The sustained contraction causes a build-up of lactic acid which results in pain. Unlike fibromyalgia there is no change in the structure of the muscle or associated inflammation.

What causes them?

A lack of sodium, potassium or magnesium can lead to muscle cramps. Those who work in very hot environments and sweat a lot, the elderly, those on diuretics (water tablets) and women during pregnancy may suffer in particular. Those who do not have good amounts of potassium and magnesium in the diet from fresh fruit and vegetables are at risk, too.

What your doctor can do

- Check the blood levels of sodium, potassium and magnesium (a red cell level of the latter is perhaps the most useful).
- Occasionally disturbances in calcium level, too low or high, can be a cause.
- Prescribe quinine sulphate which is an old-fashioned but effective remedy.

What you can do

- Eat A Very Nutritious Diet (see page 437).
- Drink plenty and ensure a good intake of sodium salt if you are in a very hot climate.
- Try supplements of magnesium 300–400 mg per day, and a multi-vitamin supplement. Magnesium is a very safe supplement to try and has been used successfully to reduce muscle cramps in pregnancy.
- Avoid excess consumption of carbonated beverages especially cola and lemonade which are high in phosphoric acid even if they are the lower-calorie varieties. The high intake of phosphate lowers calcium and probably magnesium levels. A maximum intake of one litre per week is recommended.
- Gentle massage for painful muscle groups.

Complementary therapies

Acupuncture is worth considering. Homeopathy too has some remedies, and a popular one is Cuprum Met., a homeopathic preparation of the mineral copper.

Asthma

Asthma is a common condition characterised by shortness of breath and wheezing due to narrowing of the airways in the lung. This narrowing is to a large degree reversible, particularly in the early stages of the condition, and can be triggered by a variety of factors including allergies and irritants. Many of these are identical to those factors that cause or trigger rhinitis (see Hayfever and Allergic Rhinitis, page 226).

The airways are narrowed because of swelling of the tissues that line them, because of an increase in the production of mucus which may be hard to clear and because the ring of muscle around the medium-sized airway contracts, reducing the internal size of the airway. All this means that it is harder for air to pass in and out of the lung. A key feature is an increased lung sensitivity to many non-specific irritants which in normal individuals do not cause breathing difficulties: cold air, dusts, exercise and even laughter can all trigger wheezing in the asthmatic. There is almost always a noticeable reduction in the ease of breathing in the early morning or during the night in the untreated asthmatic. On top of these, there are three major triggers which often lie behind the more serious episodes: they include infection, allergy and pollution.

What are the symptoms?

Wheezing and a feeling of shortness of breath are the main but not the only symptoms of asthma. These are almost always improved by the use of drugs that open up the airways (called bronchodilators). A cough may be the sole complaint in children or mildly affected adults, and is often the reason for a sufferer seeking advice. White sticky phlegm may be produced too, and this may be discoloured if there is infection. Characteristically these symptoms vary. They are almost always worse in the morning and at times during the day when the individual may have been exposed to a triggering factor. The easiest way to observe this is by asking the person to record their 'peak flow measurement' several times each day. This is done using a simple light-weight peak flow meter, and recording three or four measures per day for a week or longer.

Who gets it?

More and more people, over the course of the last 20 years with the latest figures showing a doubling of asthma prevalence, especially in younger sufferers. Now about 5–6 per cent of children in the UK have asthma, with probably the same number again being undiagnosed sufferers. Many of these may only have a night-time cough as a symptom. This increase

in prevalence has occurred in Europe, North America and Australasia. Fortunately the death rate which had risen throughout this century, has reached a plateau in the last 20 years, with 2,000 deaths being attributed to this condition per year in the UK. Asthma and bronchial hyper-responsiveness seem to be more likely in:

- urban dwellers
- middle-class families
- some polluted environments
- non breast-fed infants
- the children of smoking parents
- those who consume a lot of salt and salty food

Genetic factors are also relevant for both allergic and non-allergic asthma. In childhood-onset asthma there is often an allergic component, with an association with eczema, and often sensitivity to grass pollen, housedust and cats. If one parent is atopic (has allergic tendencies), the risk of a child developing inhalant allergies nearly doubles, compared with children of non-atopic parents, and nearly quadruple if both parents are atopic. The risk of developing these allergies is also greater for boys and if the child was born underweight.

What causes it?

In addition to the factors that contribute to bronchial hyperresponsiveness, the three main categories to consider are those already mentioned: allergies, infection and pollution. Recent research suggests that there are interactions between those whereby pollutants and viruses increase the magnitude of the allergic response.

Allergic causes

These are very similar to those that cause rhinitis (see page 226). They can cause both an immediate reaction with a peak effect at 5–15 minutes, and a delayed reaction peaking at 4–6 hours, and which can last for 24 hours. Thus daily exposure to an allergen may mean that there are nearly continuous symptoms with no discernible aggravations that would allow you to easily connect a possible allergen with the asthma. Possible allergens include:

- *Housedust mite* For control of the housedust mite, see Hay Fever (page 229).
- *Animals* Cats, and to a lesser extent dogs, birds (and feather-filled furnishings) and laboratory animals.
- *Grass pollen* An allergy can cause asthma as well as hayfever. Sensitivity to tree and weed pollen and, rarely, flower pollen may be minor triggers.

- *Mould sensitivity* *Aspergillus fumigatus* is a common garden and household mould which releases its spores in autumn and winter, and can produce chronic asthma in which the fungus actually infects the lung. Other mould spores are present in the atmosphere in the late summer and early autumn. They are more likely to be present in rural areas and some are released after rainstorms. Allergy to fungi that commonly cause skin infections such as athlete's foot or nail infections is another, albeit rare, cause of asthma.
- *Foods* Some of these may be obvious because they produce reactions within a few minutes or an hour or two of consumption. This probably applies to less than 10 per cent of asthmatics, and common culprit foods are nuts, eggs, milk, wheat, soya, fish and shellfish. Very delayed reactions to foods are notoriously hard to assess. Cows' milk products and wheat are possibilities. A reason that the role of these or other foods is unclear is that sensitivity to them may result only in an increase in catarrh, or produce biochemical changes in the lung that then require the presence of other more potent trigger factors before there is a discernible effect.
- *Health-food supplements* These are a rare possible cause, with asthmatic reactions and even death following consumption of royal jelly.
- *Artificial colourings* Notably Tartrazine E 102 and Sunset Yellow E110 in approximately 4 per cent of asthmatics.
- *Preservatives in food* Sulphites (E 220–E 227) in approximately 5–10 per cent of asthmatics. Sulphites are also found in many wines, and this beverage may occasionally trigger attacks.
- *Dust* From woods, wheat, other grains, tea, coffee, soya beans, and other foods.
- *Fumes* From soldering of metal and the soldering flux rosin.
- *Dust or fumes* From chemicals, medicines and enzymes in occupational exposure.
- *Chemicals* Those used in paint sprays.

Infective causes

These are an important possibility, and although antibiotics are often given during an acute episode, it is more often to cover the possibility than the actuality of infection.

- Viral infections seem especially common in children.
- Bacterial infections should be suspected if yellow or green phlegm is present. This is very relevant to older patients with a history of long-standing lung problems.
- Parasitic infection, not in the lung, but elsewhere may sometimes be a trigger due to the development of an allergy to the parasite's proteins which then cause a reaction in the lung. Only suspect if there are other symptoms of parasite infection or a history of foreign travel.

As a rule infections may be more likely if the diet is inadequate and there are deficiencies of certain key nutrients. Vitamins A, B complex and zinc may be especially relevant but there are no studies of their levels in asthmatic patients.

Pollution as a cause

- Smoking is the most obvious trigger factor, and this is nowadays very often another's smoke from passive exposure.
- Outdoor air pollutants include sulphur dioxide, nitrogen dioxide, chlorine and ozone. These chemicals are either released from industrial processes, are present in car exhaust fumes, are formed naturally by the action of lightning, or form in the photochemical smog that sits like a blanket over many large cities. A combination of bright sunlight and the right atmospheric conditions combine to create a chemical soup containing these potent lung irritants. Ozone seems often to be the most important, and levels of this chemical typically peak around midday. Weather forecasts now include warnings about poor air quality.
- Very fine smoke particles from fires of coal or wood, diesel engines and some industrial sources were once thought to be relatively harmless, but they do seem to cause problems. They may combine with allergens such as pollen and enhance their triggering effects.
- Indoor pollutants (is nowhere safe?) include paint strippers, oven cleaners, spray polishes and others. Sunlight may contribute to an indoor photochemical smog effect.

Other possible causes

- The most serious are a group of drugs called beta-blockers used in the treatment of high blood pressure and angina, and in the form of eye drops in the treatment of glaucoma. No one with asthma or a history of asthma should use these drugs.
- Aspirin and occasionally other analgesics may trigger an attack. There may be some association with nasal polyps or a family history of aspirin sensitivity. This may affect 2 per cent of asthmatics.
- Rarely, asthma is much worse premenstrually. The exact cause for this is not clear. It may respond to either the use of steroids or hormonal treatment. Treatment of associated premenstrual symptoms might be beneficial (*see* Premenstrual syndrome, page 394).
- A certain amount of asthma at night and in the early morning is due to the near silent regurgitation of acid secretions from the stomach and their passage in small amounts into the lung. This happens most easily at night when the person is lying down and the reflux of acid from the stomach into the oesophagus or gullet goes unnoticed. Coughing episodes at night with a burning sensation in the central chest would

suggest this possible situation. Treatment involves a dietary measure to help reduce acid reflux (see page 247) and use of drugs to suppress excessive acid production. They can be highly effective.

What your doctor can do

The management of asthma has undergone a substantial review in the UK, Australasia and elsewhere in the last decade. This came about because of a continuing high mortality rate which is now beginning to fall, and the realisation that a high percentage of these deaths was preventable. Management depended upon:

- Adequate treatment of acute attacks.
- Detection of precipitating cause(s). In some instances this may mean either skin or blood tests for possible allergies.
- Assessment of the degree of lung impairment. Most often regular use of a simple 'peak flow meter' will give good information about the severity of the asthma and its variation at different times. More detailed lung function tests are used by chest disease specialists.
- Drawing up a treatment action plan based upon the above information, the patient's needs and following recognised guidelines.

Most treatment centres upon the use of drugs most commonly given by inhalers. The main types are:

- Bronchodilators such as salbutamol (Ventolin); these produce a very quick response but need to be given several times per day. Mild asthmatics may not need any other therapy. Excessive use of these inhalers has in the past resulted in an increased risk of death. It is important that the recommended intake and prescribed pattern of use are followed.
- Steroid inhalers which come in a variety of strengths. They are useful when the asthma is not controlled by simple bronchodilators. They reduce the swelling and inflammation that narrows the airways, and are most usefully combined with a bronchodilator. Very potent inhaled steroid preparations are now available, and are used for more severe cases. Side-effects such as oral thrush may develop, and continued use may reduce growth rates in children.
- Sodium cromoglycate is a drug again given by inhaler, that has a unique action, blocking the allergic reactions that take place in the lung. It is most successful in young children and often should be tried before long-term steroid inhalers are used. The inhalers are less effective in adults, but are worth considering when allergy plays a major role.
- Oral steroids are used initially as a short high-dose course for severe attacks in either children or adults. Courses lasting seven days or so are

relatively free of side-effects, are life-saving, and frequently reduce the time spent in hospital. For those with severe asthma that requires maximal doses of inhaled steroids or repeated short courses of high-dose steroids, then long-term use of daily doses of steroids are worth considering. These are not without side-effects, most usually if the dose of prednisolone exceeds 10 mg daily. Weight gain, high blood pressure, muscle loss, osteoporosis and development of diabetes may all occur, but are perhaps less likely if the patient is encouraged to eat very healthily and has no associated nutritional deficiencies.

- Other drugs are sometimes used by specialists, and include long-acting bronchodilators (Salmeterol and Oxitropium) given by inhaler, preparations of Aminophylline, antihistamines and immune-altering drugs. All of these except the last category are usually tried before long-term steroid tablets are used.

When any of these treatments are first started it is a good policy for the patient's response to be carefully monitored. Recording the peak flow readings in the morning and at a further time later in the day, as well as the level of symptoms, can help decide on the best type of treatment and its dosage. This is important, as potentially many treatments will continue for years.

The drugs for inhalation can be given by a number of devices including metered dose inhalers which use chlorofluorocarbon propellant, dry powder devices and nebulisers for the severe attack. Large spacer devices attached to the inhaler may improve performance and reduce side-effects in the mouth.

- Desensitising was once a popular treatment, though it is now rarely used because of occasional deaths. Patients who were strongly reacting to housedust mite or pollen could be made less sensitive after being given a series of injections. Each injection contained a very small but increasing dose of the allergen which, instead of causing an allergic reaction, stimulated the body to produce other antibodies that blocked the action of those antibodies involved in the asthmatic reaction. Thus the allergy was side-tracked. Such treatments may return in the future and be used at specialised centres.

What you can do

The importance of involving the sufferer in the care of their asthma is becoming increasingly recognised. The variable nature of this condition means that the asthmatic needs to know which changes can be made to their treatment and be familiar with what the possible triggering factors are for any acute episode. Avoidance of these triggers is important, especially if escalating doses of drugs are to be avoided.

- *Take your medication regularly* It sounds simple and it is. Regular use of the agreed medication should mean better lung function, fewer severe attacks and less disability. Better medical treatment plans may well be behind the recently reported falls in deaths from asthma in the UK.
- *Avoidance of known inhaled allergens* This applies particularly to those who need to use steroids in any form. The need for avoidance of housedust and other inhaled allergens will depend on documentation of the allergy, usually by use of skin prick tests, and recognition that the asthma is to a substantial degree influenced by them. The measures detailed under Hayfever and Allergic Rhinitis (see page 226) for the avoidance of the appropriate allergen should be followed. Prolonged avoidance of the allergen can, after a number of months, lead to a reduction in the individual's degree of sensitivity.
- *Avoid pollutants* Firstly do not smoke. Try not to use wood and coal fires in the home unless they are very well enclosed. You may need to avoid going outside during the time of the day when air quality is at its worst.
- *Reduce the chances of chest infection* Damp in the home is still a major risk factor for chest infections, and this is in turn related to social class. Treating damp areas and providing adequate heat and ventilation are important. These measures will help limit housedust mites and some moulds.
- *Improve your nutritional state* Mild nutritional deficiencies and a poor diet certainly influence resistance to infection and the rate of chest infections and possibly the development and severity of asthma. Eat The Very Nutritious Diet (see page 437). Certain nutrients may be especially important, and they include vitamins A and B complex and zinc.
- *Eat certain protective foods* A high intake of fresh fruit and vegetables may be desirable. They are rich in magnesium and potassium, and low in sodium. Onions have been shown to have anti-asthmatic properties. Certain chemicals called thiosulphates and cepaenes, which are formed when the onion is crushed or chopped, seem to inhibit the production of pro-inflammatory chemicals involved in asthma. Apparently you'll need to eat one medium-sized onion per day. Perhaps a bowl of steaming hot onion soup for the acute attack?
- *Avoid common food additives* These include artificial colourings and sulphites. Watch out for the latter in squashes and wines which do not list them on the label within the European Community. Australians are better informed, as these additives are detailed on the label.
- *Cut down on salt in the diet* High normal intakes might enhance the bronchial hyper-responsiveness that develops.
- *Take regular exercise* Provided that necessary care is taken, the asthma is stable, and medication is taken regularly, this can improve

the situation over time. Many sports people with asthma take a squirt of their bronchodilator just before exercise.

- *Protect yourself from cold air* This commonly triggers wheezing. Do so by wearing a scarf and even placing this over your mouth. Alternatively you can wear a face mask, especially if you are cycling in a city and are exposed to traffic fumes.

Nutritional supplements

- Vitamin C, 1g twice daily, has an antihistamine effect. Try it for six to eight weeks.
- Magnesium is a mineral that has mild anti-allergy and bronchodilating effects. It is not as strong as the equivalent drugs. Two recent pieces of research have revealed that the white cells of asthmatics are low in this mineral, and that a poor dietary intake in adults is associated with an increased chance of wheezing. The effects of supplements are awaited, but are unlikely to be very strong. A supplement of 300–400 mg per day for at least four months, together with a high-protein low-salt diet, is suggested.
- Vitamin B6, pyridoxine, was shown in one small trial to help reduce the asthmatics' dependency upon steroids. This supplement has been shown to enhance magnesium balance in women with premenstrual syndrome.
- Multi-vitamins and antioxidants such as beta-carotene, vitamin E, selenium and zinc might protect the lung from chemical assault. Lowered blood levels of this latter mineral have been linked with asthma and sensitivity to aspirin and salicylates. Vitamin A is important for the health of the mucous membranes lining the respiratory tract.
- Fish oil supplements have been tried in asthma with the expectation that their anti-inflammatory effects would reduce the degree of wheezing. In fact some of those who took part experienced a deterioration, and this type of supplement, including cod liver oil, should not be taken by the severe asthmatic without medical supervision.
- The bioflavonoid quercetin has been used successfully to reduce inflammation of the lungs and respiratory tract.
- Bromelain, an enzyme derived from pineapple, also possesses powerful anti-inflammatory properties.

As before with drug medication, evaluation of benefit is important. Monitoring the response to self-help measures, dietary treatment and use of supplements is best achieved by recording peak flow daily. Other measures of improvement include general well-being, need for medication, dosage of steroids or bronchodilators, and use of antibiotics. For many of these non-drug measures, improvement is likely to take three to six months, so be patient.

Complementary therapies

- Acupuncture can help with feelings of shortness of breath, and thus might be of benefit to some sufferers.
- Relaxation therapies such as massage and aromatherapy could help, especially where stressful incidents are a frequent asthma trigger.
- Herbal medicine is worth consideration, as there appear to be a number of plant extracts with the power to alter lung chemistry. Sanitised extracts of these may appear or pharmacological equivalents may be developed in the near future.

See also: Allergy, PMS, Indigestion, High blood pressure, What's wrong with present-day diet and lifestyle?, Nutrition is the key to health, The simple exclusion diet, References and Recommended reading.

Back Pain

Back pain is a common complaint with a variety of causes. The pain may vary from intermittent discomfort to severe pain that requires complete bed rest. At one end of the spectrum continuous pain may be caused by a disease in the back itself or as referred pain from some other part of the body that is diseased or infected, and at the other extreme the pain may be related only to pulled muscles or ligaments, and may only be a short-term problem. The sensations can vary from a dull aching feeling to sharp, shooting sensations.

What causes it?

There is an almost endless list of causes for common back and neck problems, and they include:

- muscular strain from moving awkwardly or lifting heavy items
- tearing of a ligament or tendon, or inflammation of the synovial fluid which surrounds the joints
- long-standing displacement or curvature of the spine
- arthritis of the spine
- prolapsed (slipped) disc
- vertebral collapse from osteoporosis
- infections such as viral infections
- kidney stones
- pressure on the nerves as in sciatica
- bad posture when sitting or standing
- a gynaecological disorder, like fibroids or cysts

- period pains
- ill-fitting or high-heeled shoes
- obesity or pregnancy placing strain on the spine
- injuries or accident
- bowel or intestinal problems
- depression and fatigue
- occasionally disease of the internal abdominal organs

What your doctor can do

Severe back pain lasting for more than a few days will require assessment by a doctor. All the patients with weight loss or severe persistent pain should be looked at particularly carefully, and this may well involve blood tests and X-rays. When underlying medical conditions have been eliminated, your doctor may refer you to an osteopath or a physio-therapist for a course of treatment. Osteopaths are particularly adept at treating pain of musculo-skeletal origin (derived from muscles, tendons, ligaments or bones). They are also trained to detect more common serious disorders that may present with back pain and often they, in turn, can refer you to your GP. Cranial osteopathy is a particularly effective and gentle form of treatment that is well worth investigating if you suffer with back problems, (see page 38).

What you can do

The simplest and most important message for those with back pain is that much of the pain is actually due to muscle spasm. Sometimes this is the only problem or it is secondary to painful skeletal conditions such as vertebral collapse or displacement. Muscle spasm can be relieved by a number of self-help measures, including:

- rest
- local heat or cold application
- gentle massage when the acute episode is over
- ordinary pain killers
- small amounts of alcohol
- supplements of magnesium, a simple cheap and at times surprisingly effective treatment (but which is unlikely to be effective for the control of severe back pain associated with arthritis). Supplements of between 200–400 mg of magnesium taken with multi-vitamins will help raise magnesium levels, in blood and muscle over a two-week to two-month period.
- The amino acid DL-Phenylalanine (DLPA) is used for pain relief. DLPA works by inhibiting the enzyme which normally inactivates the

pain relieving endorphins produced by the brain. *Do not* take if pregnant or breast-feeding, or suffering from panic attacks, diabetes or high blood pressure.

- Vitamin C and the mineral zinc work by enhancing protein synthesis and collagen formation.
- If the back pain is arthritic, introduce glucosamine sulphate to enhance cartilage formation and refer to the chapter on arthritis for more information.
- The Very Nutritious Diet (see page 437), low in salt and sugar, as this helps magnesium retention.
- The Alexander Technique is particularly good at re-training us to hold our bodies in an optimum way, thus preventing future back or neck problems.

Many back problems could be prevented by improving posture and by taking adequate exercise. The following points are worth implementing for long-term back health:

- Make sure you have a comfortable mattress to sleep on which is turned regularly. So many back problems occur gradually as an ageing mattress fails to support your back in the optimum way.
- Ensure that you have a comfortable working chair that supports your back fully and that your desk or table is the appropriate height.
- When you walk be aware of your posture, keeping your shoulders down and your head high. Imagine you have a piece of string coming out the top of your head which is being gently pulled from above.
- When bending, bend from the knees, rather than stooping over.
- Take regular exercise, but be careful not to cause any further back problems. The YMCA back-care video, *The Back and Beyond*, provides a useful healthy back maintenance programme for sufferers. It is worth a try in the comfort of your own home.

Complementary therapies

Osteopathy and chiropractic are now established to be of value. It is helpful to have a local therapist with whom you have good rapport, especially if you have repeated need of their services. Vigorous manipulative techniques are inappropriate for many older patients, and you may need to enquire of the therapist what type of approaches they use before seeking their advice. Cranial osteopathy is our preference because it is effective and non-invasive.

Homeopathic remedies for pain relief are a useful tool, and magnesium phosphoricum is particularly helpful.

See also: Recommended reading, References.

Breast Problems

Up to 60 per cent of working women have experienced breast pain at some time which is, surprisingly, a good sign, as pain is not usually associated with anything sinister. Breast cancer is a great concern to us all, though, especially as it is on the increase. Despite the fact that breast examinations and special X-rays, mammography, are now available to detect early breast cancer, there are still some 20,000 new cases diagnosed each year in the UK. England and Wales come top of the league for breast cancer, followed by Denmark and Scotland. New Zealand comes in eighth, the USA in eleventh place and Australia in fourteenth. Having begun in such an alarmist fashion, it should be said that for every patient with breast cancer, ten others will have a non-sinister breast lump or breast tenderness.

What are the symptoms?

There are various conditions that cause breast tenderness, pain (otherwise known as mastalgia) and lumps, and they are generally covered by the term 'benign breast disease'. This may sound unduly frightening, but non-cancerous lumps, bumps and cysts are quite normal and should not be regarded as disease. The word 'benign' means non-cancerous, and indicates that lumps will not spread and grow to invade other tissue, or affect other parts of the body. Even so, they can be very uncomfortable and a continuing source of worry.

Breast pain can be divided broadly into two categories. In approximately one-third of cases, breast tenderness and discomfort occur throughout the month, whilst in the remaining two-thirds, breast tenderness and pain tend to worsen before the onset of a period. The premenstrual pattern of breast tenderness that occurs for up to two weeks before the period, tends to occur in younger patients in their twenties to forties, and can usually be alleviated by natural means.

All women with breast tenderness or a breast lump should have a physical examination to determine the nature of the problem. Mild breast tenderness that occurs premenstrually, and clears completely without the presence of any breast lump, is rarely indicative of anything sinister. Persistent pain, alteration in the shape of the breast, or a discharge from the nipple, are all symptoms that should make you seek an early appointment with your doctor.

What causes it?

- In recent years, there has been some evidence to link breast disease with the type of diets we eat. Breast cancer, for example, is more

common in countries with a high animal fat intake. Countries such as Japan, where fat intake is extremely low and the diet is composed mainly of vegetables, fish and rice, there is a low incidence of breast cancer and benign breast problems.

- Other scientists in the field have suggested that cigarette smoking and caffeine intakes from tea and coffee, chocolate and cola, may be linked with breast discomfort. This is not absolutely proven, but it may be helpful to reduce your consumption of these if breast tenderness is a problem.
- Hormonal factors are also important. The oral contraceptive pill, with its content of progesterone, may help to reduce some types of benign breast disease. Giving birth to a first child prior to the age of thirty is associated with a slight reduction in breast cancer risk.

What your doctor can do

- Examine your breasts and take a history of the problem. If you feel it is a recurring cyclic problem, in that it occurs monthly before your period is due, you should make this known.
- If your doctor is not unduly concerned, the next step is to prescribe evening primrose oil, Efamast, at a dose of 3,000–4,000g for at least four months. This has been shown to help with benign breast problems.
- Your doctor should tell you to eat a low-fat diet, see page 102, but may be unaware of the research published in this area.
- If your symptoms are not sinister or cyclic, then your doctor may prescribe either painkillers or an anti-inflammatory preparation.
- Should the pain or tenderness persist, your doctor may then prescribe powerful hormones, like Danazol, which will stop you ovulating or, as a last resort, Bromocriptine, another powerful drug, which blocks the hormone, prolactin, from the pituitary gland. Both of these drugs have a long list of side-effects which may be unacceptable and should be carefully considered.

What you can do

A carefully conducted study published in the leading medical journal, *The Lancet*, in 1988, showed that women with premenstrual breast tenderness, could benefit from a low-fat, high-fibre, high-protein diet. The diet requires a substantial reduction in overall fat intake to a level that would mean most of us reducing our fat intake by nearly 50 per cent. To achieve this, the following changes would need to be made:

- Eat leaner cuts of meat and trim all visible fat from meat.
- Don't eat meat products, such as pies, sausages, and pâté, which are high in fat.
- Don't eat the skin from fish, chicken or other poultry.
- All meat and fish should be grilled, steamed or baked, and not fried, or prepared with rich creamy sauces.
- Dairy intake should be limited, replacing full cream milk with skimmed or semi-skimmed milk. Cheese can be replaced by those with a low-fat content, such as Edam, and using low fat polyunsaturated spreads, instead of ordinary margarines or butter. Cream is to be avoided too; and low fat yoghurts or fromage frais, are good alternatives.
- Where possible eat organic food, especially dairy products and meat which can contain hormones, antibiotics and other synthetic chemicals.

Other dietary guidelines that are also of benefit in helping to reduce premenstrual breast tenderness include the following:

- Eat plenty of vegetables and fruit, which are low in fat.
- Aim to consume one portion of green vegetables, a portion of root vegetables and some salad every day.
- All green leafy vegetables, potatoes and other root vegetables should be consumed without butter or margarine.
- Eat at least two to three portions of fruit daily.
- Eat at least three servings of oily fish each week, including mackerel, pilchards sardines and salmon. These contain EFAs which have powerful anti-inflammatory properties, especially important for reducing breast tenderness.
- Have a daily serving of unsalted nuts and seeds, including pecans, almonds, walnuts and Brazil nuts and sunflower and pumpkin seeds. These are also rich in EFAs and form part of a very nutritious diet. Eat them sprinkled over your cereal or yogurt or eat them as a snack.
- Avoid wheat and bran which can encourage water retention. When the body sees a food as 'toxic', such as wheat the cells fill with fluid in an attempt to dilute the toxins, manifesting as fluid retention causing breast swelling and tenderness.
- Severely reduce or avoid salt and salty foods. Salt drags fluid into the cells and exacerbates breast tenderness. Use herbs and spices to enhance the flavour of food rather than disguising it with salt.
- Alcohol, sugar, confectionery and other foods rich in sugar and honey, should be severely limited, as they provide empty calories.

All these measures are particularly important if you are overweight. It has been shown that such diets may help bring down excessive levels of the hormone oestrogen, which may stimulate breast tissue. A high-fibre diet

may help combat a tendency to constipation, which itself has been associated with hormonal abnormalities and even some breast conditions. Overall, the effects of this diet in the study group were very gratifying, but the benefits took some six months to become fully apparent. There was a substantial reduction in both premenstrual breast swelling, tenderness and discomfort, and it may be that these beneficial changes could eventually lead to a reduction in breast cancer risk.

Other potentially beneficial measures include:

- Reducing consumption of cigarettes and alcohol, as well as caffeine from tea, coffee, chocolate and cola-based drinks.
- Taking the supplement evening primrose oil, Efamol. This is widely available in chemists and health-food shops. The full dosage is six to eight 500 iu capsules taken daily through the menstrual cycle. It is best combined with the above dietary measures.
- Taking natural vitamin E, 400 iu per day, has also been shown to help with breast tenderness in one trial.
- Wearing a firm, supportive bra. Some women find a sports bra particularly comforting and helpful during the night.

Self-examination

It is important to have regular breast examinations, especially if you are prone to tender, lumpy breasts. Make sure you examine your breasts yourself on a regular basis to check for any lumps or changes in shape. Many women will notice that their breasts become lumpy and tender in the two weeks before their period, and that this disappears when the period has begun. These symptoms are not a cause for alarm, but should be treated, see page 101.

When to examine

Some doctors recommend examining your own breasts thoroughly at a regular time each month, after your period has finished. However, if you happen to be one of the 10 per cent of women who do self-examine, you will know that your breasts may sometimes alter in density and texture at different times of your cycle. It is important to get to know your breasts, and get in tune with your cycle, especially if you are of child-bearing age. It is probably a good idea to examine your breasts on a fortnightly basis – preferably at a regular time. If there is a set time, perhaps at the weekend, when you have a leisurely soak in the bath, maybe that would be the best opportunity, and one that you would not forget.

How to self-examine

- First have a good look at yourself undressed in the mirror. Check to make sure there are no changes in shape or colour.
- Next take each segment of your breast, like the segments of an orange,

and with one hand supporting the breast, probe and massage the section to check for lumps and bumps.

- Finally lie down, with one arm above your head, and check the circumference of the breast, including the section that merges with your underarm. Sometimes glands under the arm may be tender and swollen, indicating that there is some extra activity occurring in the area for some reason.
- If you have any concerns or confusion, it is best to get your doctor to examine the breast for you.

Most women who self-examine never find a lump, and the vast majority of lumps that *are* found are normal and harmless. Cysts, solid lumps, and discharge from the nipple are all things that occur from time to time, and which are usually hormonally related and with no sinister underlying cause. Be positive about examining your breasts on a regular basis. A lump detected early, which did turn out to be cancerous, would not be life-threatening if treated quickly. The medical profession are extremely efficient when it comes to breast cancer.

Never forget, if you have a pain or lump in your breast, you should be examined by your doctor. If neither the doctor nor the specialist can find nothing wrong, then taking care with your diet and using Efamol or Efamast, helps many women with benign breast disease. You would also be advised to follow the suggested menu on page 471.

Complementary therapies

Homeopathy, herbal medicine and massage would be the preferred choices of complementary therapies for breast problems, once it had been established that there was no underlying sinister cause. There are a number of homeopathic remedies worth trying, such as Natrum mur, Nux, Kali carb or Silica. Herbal medicine may also be worth a try.

Geraldine's story

Geraldine was a 42-year-old mother of two grown children who worked as a secretary. She suffered from painful breasts to the point where even walking hurt.

'My problem began when I was 33 and would occur every three months. Within three years the frequency and the pain had increased so that for three weeks out of four I was in agony. My doctor suggested vitamin B6 which helped for the first few months, but the symptoms returned. I was instructed to increase the dose, and ended up taking seven pills per day, which I thought may be dangerous. He then suggested I try some evening primrose oil which helped ease the pain a bit, but not completely.'

That year my husband was killed in a road accident. My children were fourteen and ten at the time and life was extremely stressful. My breast pain grew worse until, by 1984, I was in pain for the majority of the time. My breast regularly swelled from 34B to 36B, and the skin was tight and shiny. I even wore a maternity bra in bed because I felt so heavy and uncomfortable. I went to see several doctors, one of whom suggested that perhaps I had strained my muscles driving a car!

Eventually I was treated with several powerful hormonal drugs. The medical theory was that the shock and stress of my bereavement had brought on an early menopause. I didn't believe this because I knew my symptoms had been just as severe, although less frequent, before I was widowed. When the drugs lost their effect I was prescribed new ones. I gradually put on 4.5 kilos and developed severe back pain. When the doctor eventually told me that my back pain was a side-effect of the drugs I went home and threw them all down the toilet. Within a week my back was as right as rain.

It was at this point I saw a magazine article about a woman with symptoms similar to mine who had been cured by changes to her diet. I really didn't have much faith in this, but I was so desperate I was ready to try anything. I phoned the WNAS and made an appointment. My first consultation was long and probing. I was given a strict diet to follow with no dairy produce, tea or coffee or added salt, no more than two slices of bread per day, and lots of fruit and vegetables. I was also given supplements of Optivite, vitamin C and Efamol, and told to follow an exercise programme.

Within a week I was a different woman. I felt so much better I could hardly believe it. It took just four months for the breast pain to completely disappear. I've been pain free for six years now. I still follow my programme and feel completely in control. Being free of breast pain has changed my life. I've been able to take swimming lessons and judo classes which would have been out of the question before. I feel like socialising and am thrilled about finding an answer to the problem that made my life a total misery for so many years.'

See also: Mastitis, Cancer, PMS, Recommended reading, and References.