Introduction

This booklet is designed to give you some helpful information about arthritis and other joint problems, and how the Arthritis Research Campaign (arc) is fighting them. At the back there is a brief glossary of technical words – we have put these in italics when they are first used in the booklet.

arc produces a wide-ranging series of booklets and leaflets on specific conditions. There is a list at the back of this booklet – please contact us for the one dealing with your particular illness or condition. We would also welcome suggestions for any new booklets or leaflets that would help you understand more about arthritis and the role of arc. Details of how to contact arc can also be found at the back of the booklet.

Arthritis and rheumatism – is there a difference?

People are often confused about the meaning of these two words. ‘Arthritis’ means disease of or damage to the joints. ‘Rheumatism’ is a more general term used in the past to describe any pain in or around your bones, muscles and joints. Nowadays doctors are less likely to use the term ‘rheumatism’ and more likely to refer to a specific musculoskeletal problem by the part of the body that is affected, for example ‘low back pain’ or ‘knee pain’. Widespread pain in the muscles and joints is now often referred to as fibromyalgia. The terms ‘musculoskeletal conditions’ or ‘the rheumatic diseases’ are used to refer to all types of arthritis and other problems with muscles, bones or joints.

(See arc booklets ‘Back Pain’, ‘Fibromyalgia’, ‘Knee Pain in Young Adults’.)
Four main types of rheumatic disease

There are about 200 different types of rheumatic disease. They fall into four main groups:

1. Inflammatory arthritis

In these disorders the joint lining (synovium) becomes inflamed. This can damage the surface of the joint and the underlying bone itself. Usually many joints are affected. Rheumatoid arthritis is an example, but there are many other forms of inflammatory arthritis, including:

- gout and pseudogout
- reactive arthritis
- arthritis associated with colitis or psoriasis
- ankylosing spondylitis
- rarer disorders that can affect many parts of the body – the connective tissue diseases. An example is systemic lupus erythematosus (SLE)
- polymyalgia rheumatica.


2. Osteoarthritis

This is a common condition where the cartilage becomes thinner and damaged and extra bone forms at the edges of the joint. It can result from abnormal stress on the joints, or from many different forms of injury or joint disease. However, many cases develop without any obvious reason. Usually only a few joints are involved. The hips, knees and hands are most likely to be affected, but osteoarthritis can occur in any joint.

(See arc booklets ‘Osteoarthritis’, ‘Osteoarthritis of the Knee’.)
Bone being eroded

Excess fluid (effusion)

Synovium spreading over damaged cartilage

(a) A normal joint

Bone being eroded

Excess fluid (effusion)

(b) A joint affected by rheumatoid arthritis

Painful friction point

Scarred synovium

Cartilage being worn down

Bone

Bony outgrowths

Excess fluid (effusion)

(c) A joint affected by osteoarthritis

Figure 1. Normal and arthritic joints
3. Regional musculoskeletal pain

Not all musculoskeletal pain is caused by arthritis. Pain can arise from irritation of tissues around joints, such as ligaments and tendons (often referred to as ‘soft tissues’). Minor injury or overuse can cause localised pain which often lasts only for a short period. Tennis elbow and housemaid’s knee are examples. In addition, more generalised pain can develop in muscles or joints in situations where there is no arthritis – as in fibromyalgia, for example.


4. Back pain

This common problem can arise from muscles, discs, ligaments, bones and joints. Often it is not possible to find the exact cause of the pain. Certain forms of inflammatory arthritis – such as ankylosing spondylitis – can affect the spine, and osteoarthritis can also affect the back, where it is usually referred to as ‘spondylosis’. Osteoporosis of the spine can show up initially as back pain.

(See arc booklets ‘Ankylosing Spondylitis’, ‘Back Pain’, ‘Osteoporosis’.)

Who gets arthritis and other types of musculoskeletal pain?

Arthritis and other types of musculoskeletal pain are common, worldwide problems. They affect people regardless of age, sex, race, class or country.

 Millions of people in Britain alone will experience some form of musculoskeletal problem during the course of a year, although many people will not have persistent or
severe symptoms. Around 9 million will seek help from their family doctor. Of these, more than 2 million will have osteoarthritis, and more than 350,000 rheumatoid arthritis. Others will have regional musculoskeletal pain, back pain, or osteoporosis. Some people will have one of the less common complaints and about 12,000 children and young adolescents will suffer from arthritis.

(See arc booklets ‘Tim Has Arthritis’ (written for children), ‘When a Young Person Has Arthritis’ (written for teachers), ‘When Your Child Has Arthritis’.)

What causes arthritis and other types of musculoskeletal pain?

There is no single, simple answer to this question, and there are many different forms of arthritis to be considered.
We understand the causes of some diseases, such as gout, and can treat them effectively. Research supported by arc has gone a long way towards unravelling the causes of most of the common forms of arthritis, but there is still much to be done.

Most rheumatic diseases are due to several factors acting together. Firstly, some people are naturally more likely to suffer from certain disorders as a result of their genetic make-up (that is, genetic risk — see below). Secondly, a variety of ‘external’ factors may increase the risk in those who are susceptible to the condition in question. These include the factors researchers refer to as ‘environmental’ — e.g. previous injury, infection, smoking, and occupations which are very demanding physically (see ‘Lifestyle and “trigger” factors’). Finally, for many conditions there is a major element of chance.

Figure 3. Children may also get arthritis.
1. Genetics and family risks

Arthritis is not infectious. Furthermore, most types are not passed on directly from one generation to another. However, some forms of arthritis may run in families. The way your body is made (based on the genes passed on from your parents) makes you more or less susceptible to the disease in question. *arc* supports research which is helping us to understand the precise nature of the genetic side of arthritis. We believe this could lead eventually to our being able to prevent some forms of arthritis.

2. Lifestyle and ‘trigger’ factors

Arthritis can start suddenly without any obvious cause, and at any age. In some conditions something in a person’s lifestyle or medical history – or a combination of factors – could be responsible. For example, people in physically demanding jobs may be at greater risk of developing osteoarthritis, particularly if the job involves repetitive

![Figure 4. Most rheumatic diseases don’t run in families.](image)
activity. Professional footballers and farmers are examples of people who are more likely to develop osteoarthritis (of the knee and hip respectively). A previous injury can increase the likelihood of osteoarthritis and a mild infection may trigger some types of arthritis. arc is actively researching in this field to find out more about these factors.

Occasionally an allergic reaction can cause short-lived arthritis. Certain foods may appear to make arthritis worse. But diet and allergies are unlikely to cause long-term arthritis. Most of the main forms of arthritis occur all over the world, in people with completely different diets and ways of living. However, being overweight can be an important factor in the development of osteoarthritis.

(See section on ‘Diet’ and the separate arc booklet ‘Diet and Arthritis’.)

3. Climate

Many people with arthritis feel strongly that changes in the weather affect the level of pain they experience. This is difficult to prove because climate and weather conditions involve many components, and the symptoms can in any case change from day to day. Tests carried out in controlled climates suggest that some people may be able to detect a rise in humidity or a fall in barometric pressure from unpleasant feelings in their joints. And the weather will probably make a difference to how you feel – cold, grey, damp weather may lower your spirits so that the pain seems worse, while warmth and sunshine tend to have the opposite effect. However, arthritis and musculoskeletal pain occur in all climates, and although the weather may affect the symptoms of your arthritis or the way you feel, it will not cause the condition or affect the way it develops.
What happens if you get arthritis or other types of musculoskeletal pain?

Arthritis does not always get worse. Many forms of musculoskeletal pain, such as most of the regional disorders and many attacks of back pain, are short-lived, and go away on their own. Some of the inflammatory forms of arthritis, such as reactive arthritis, can also go away. Others, including gout, can often be controlled by treatment.

However, several of the major types of arthritis, including rheumatoid arthritis and osteoarthritis, are chronic (persistent) disorders, which are unlikely to go away without treatment. These conditions also tend to vary – ‘flare-ups’ (where the symptoms are much worse) are interrupted by ‘remissions’ in which the pain and other

Figure 5. Gout can often be controlled by treatment.
symptoms are much less severe. The aim of treatment is to induce remission.

Arthritis can affect different people in different ways. Some cases are more severe than others, and different joints can be involved. This makes it difficult for doctors to predict a clear outcome for any one patient. However, most people with arthritis do not have major mobility problems, and effective treatment will help reduce the risk of disability, even in the most severe cases.

\[\text{Remember: Many forms of arthritis and musculo-skeletal pain go away on their own, and all can be treated.}\]

Symptoms and signs

Everyone gets aches and pains in their muscles and joints from time to time, particularly if they take part in unusual or particularly strenuous physical activities.

So – how can the beginning of arthritis be distinguished from normal pain and stiffness?

Symptoms

Persistent pain and stiffness in or around joints which has no obvious cause could be due to arthritis. Most muscle pain settles within a few days, but if it persists – particularly if it occurs when you are resting or there is also a lot of stiffness and difficulty moving the joint – you should consult your doctor for advice. Other symptoms of a rheumatic disease can include tiredness, a general feeling of being unwell, loss of weight, mild fevers or night sweats, and skin rashes. But these symptoms are not specific to arthritis and can be caused by other illnesses.

\[\text{Remember: If in doubt, consult your doctor.}\]
**Signs**

A joint that is developing arthritis is quite likely to swell up. When a doctor examines you s/he may also find a variety of other signs of arthritis, such as restricted joint movement or difficulty in doing a particular movement or task. Because some forms of arthritis can affect other parts of the body as well (causing a rash or mouth ulcers, for example) there may be other signs to help the doctor make a diagnosis.

**Tests**

Tests may be carried out but are not always helpful in the early stages of arthritis. Some blood tests may simply show evidence of inflammation in the joints, whereas others are more specific to certain diseases, such as rheumatoid factor in rheumatoid arthritis. X-rays, and other methods of showing the inside of the joints, can also help with the diagnosis or with monitoring an existing condition.

*(See arc booklet ‘Blood Tests and X-Rays for Arthritis’).*

**Treatment**

Just as there is no simple answer about the cause of most forms of arthritis, there is – as yet – no single cure for most rheumatic diseases.

However, some rheumatic diseases can be easily and effectively controlled, and the symptoms alleviated, by modern treatment. Research has led to great improvements in this area.

Because the severity as well as the type of arthritis varies greatly in different people, and at different stages of the disease, treatment has to be tailored to the needs of each individual. This requires a lot of skill, experience and understanding on the part of healthcare professionals.
With treatment, many people with arthritis will be able to live full lives with relatively little pain or disability. For some the condition may cause major problems or difficulties, although the effects of these can often be minimised with treatment. Alternatively, the problem may resolve itself in the course of time. A few people still develop very serious problems due to arthritis, in spite of modern treatment. For example, some forms of arthritis can also cause problems with the heart, lungs and kidneys. More research is needed to help develop other ways of treating these people and to reduce the number suffering in the future.

**Remember:** Even though there is not yet a cure, there is still a great deal that can be done to relieve the symptoms of arthritis and other types of musculo-skeletal pain.

**Who can help?**

Go to your own doctor first. S/he can often provide all the help you will need. If necessary you may be referred to another professional such as a physiotherapist or an occupational therapist, or you may be referred to hospital to see a rheumatologist who specialises in arthritis.

**Doctors**

Doctors have an important role to play in diagnosing the different forms of arthritis, providing advice about the likely effects of a disease and prescribing therapy – including drugs, injections and surgery. Hospital specialists are often part of a team of people which includes nurses, counsellors, therapists, podiatrists, social workers and others who have a special understanding of and expertise in helping people with arthritis. The team works closely alongside orthopaedic surgeons who specialise in operations on bones and joints – including joint replacements.
Specialist nurses and therapists and other agencies

Specialist nurses and therapists are health professionals with special training in different aspects of health care. They can provide a great deal of help and advice about lifestyle and adjustments at work and at home. Physiotherapists can prescribe exercises to help improve movement and reduce pain. They can advise on what activities you should do and how much exercise to take, and suggest a variety of treatments to improve walking and other activities. Occupational therapists can advise on the protection of arthritic joints, and provide a variety of aids or appliances to help maintain a large measure of independence, even if arthritis has caused severe joint damage.

Help is also available for anyone who needs support to cope with stress, anxiety or other personal or social problems caused as a result of arthritis. Other agencies providing help include social services and voluntary sector organisations such as Arthritis Care. If you are in employment but having difficulty at your work, help may be available from the Employment Medical Advisory Service and the local Disability Employment Adviser. (See ‘Useful addresses’.)


Complementary therapists

Complementary therapists include osteopaths, chiropractors, and experts in homeopathy and numerous other alternative forms of therapy. It is important to check that the therapist has appropriate qualifications and training – look for and ask about these.

Some people find complementary therapies to be helpful but some forms may be expensive and useless. You should be wary of complementary therapists who insist that you stop all your other treatment. Forceful manipulations can be dangerous for some people with arthritis, so make sure the therapist is aware of your condition. If in doubt see your doctor first, find out about your diagnosis, and try to make sure that any alternative form of therapy you might want to pursue is genuinely ‘complementary’ to other forms of treatment.

(See arc booklet ‘Complementary Therapies and Arthritis’.)

Remember: Lots can be done for arthritis and other types of musculoskeletal pain. Try to make sure that you are getting the best professional advice – and follow it!

Drugs for arthritis

Drug therapy can be helpful for most people with severe arthritis. Some drugs can relieve a great deal of the pain and stiffness, as well as helping to control the disease and prevent it getting worse.

More and more is becoming known about the effects, and side-effects, of drugs. Most are safe – providing they are used and monitored correctly. However, there is no effective treatment that does not occasionally cause side-effects. Minor side-effects are not uncommon with the drugs used to treat arthritis; fortunately, serious side-effects are rare.
A number of different types of drugs are used. They include:

**Analgesics** (painkillers) such as paracetamol, which reduce pain.

**Anti-inflammatory drugs** (NSAIDs), which reduce stiffness and swelling of joints, as well as relieving the pain. The older anti-inflammatory drugs (e.g. ibuprofen, diclofenac, naproxen, indomethacin) can cause indigestion and occasionally more serious problems such as bleeding from the stomach, asthma, liver and kidney problems. The newer anti-inflammatory drugs (e.g. rofecoxib, celecoxib, etoricoxib, valdecoxib) are less likely to cause stomach problems but can still aggravate asthma and liver and kidney problems. Sometimes the anti-inflammatory drug is given as a cream to rub on the affected joint – this also reduces the risk of side-effects.
Disease-modifying drugs (DMARDs), e.g. sulfasalazine, methotrexate, gold and penicillamine, include a number of more powerful treatments which can be effective in suppressing arthritis and preventing or reducing damage to the joints. However, their use does need careful medical supervision.

Steroids are powerful, natural anti-inflammatory agents, which can be injected into painful areas as well as being used in tablet form. They too can have side-effects as well as great benefits, and have to be used carefully.

Biologic drugs, e.g. infliximab, etanercept, anakinra and adalimumab, are a new class of drug. They are unique in their design and action in that they were made specifically to counteract the causes of inflammation in the body.

(See arc leaflet ‘Drugs and Arthritis’ and other leaflets on individual drugs.)

Remember: Drugs are often beneficial, but need to be used carefully, according to your doctor’s instructions. If you are worried, or think that they may be causing side-effects, consult your doctor.

Surgery

Surgery may be necessary and advisable if the damage to a joint is severe enough to make life very difficult, and when other treatment is not reducing the pain. Joint replacements are now remarkably sophisticated and successful. Many different joints, including hips, knees and finger joints, are routinely replaced in people with advanced arthritis. There are also a number of other pain-relieving or reconstructive operations which are sometimes helpful.
Helping yourself

There are many ways in which you can help yourself if you have arthritis. It helps if you can be positive about the disease. Try not to let it get on top of you, or let it stop you doing the things you want to. Be determined to enjoy life as much as possible. You can help yourself by appropriate exercise, rest, diet and stress control.

*Remember: A positive attitude helps arthritis.*

Rest and exercise

Joints do not wear out either as a result of normal use or with normal exercise. It is important to keep your joints moving and your muscles strong – whether you have arthritis or not. In general it is better to keep active.

If a joint is very inflamed, a short period of rest may help the inflammation to settle down. You should also protect inflamed or damaged joints. It is better to use...
them ‘little but often’ rather than persisting with activities that afterwards cause lasting pain. However, it is also important not to rest the joints too much. All joints should be put through a full range of motion at least once a day, to prevent them stiffening up. In every case, keeping active is good for your general health.

In addition, specific exercises may be helpful, but these will depend on the type of arthritis and the joints affected. A physiotherapist will be able to provide advice on this.

(See arc leaflets ‘Keep Moving’, ‘Physiotherapy and Arthritis’.)

**Remember:** Keep your joints moving and your muscles strong. Get as much exercise as you can but don’t overdo the activities which cause pain.

Figure 8. Regular exercise is important.
Diet

All of us need to be sensible about what we eat or drink. It is important to avoid being overweight (as this puts extra strain on the joints). A good diet with plenty of fruit and fibre, avoiding too much meat or animal fat, is good for general health.

Special diets rarely make a great deal of difference to arthritis, although many people feel better when they start eating a healthy diet. A diet that replaces animal fat with vegetable or fish oils may reduce joint inflammation a little, and be of benefit to some people.

Occasionally someone with arthritis finds that a specific type of food upsets them, but this is unusual. Similarly, it is rare for alcohol to affect arthritis or other types of musculoskeletal pain. Please note, though, that certain drugs can interact with alcohol. If you are prescribed drugs for your arthritis you may need to avoid alcohol or limit the amount you drink – if you are in any doubt, check with your doctor.

Beware of the many books, articles and advice about diets that claim to cure arthritis. They all recommend

Figure 9. Try to eat a healthy diet.
quite different things, and most people do not benefit from them. In fact, an unusual diet may do you more harm than good.

(See *arc* booklet ‘Diet and Arthritis’.)

**Remember:** It is unlikely that a ‘special’ diet will significantly affect your arthritis but eating sensibly is good for general health.

### Stress

Chronic arthritis can get you down and constant pain may lead to anxiety and depression. Counselling from your doctor, or from someone s/he recommends, may help. Sharing the problem with friends and others who are affected can also be helpful. Relaxation techniques, which you may be able to learn with the help of a physiotherapist, occupational therapist, or from other sources, can also be beneficial. Some of the organisations listed under ‘Useful addresses’ can also offer help.

Stress is not the cause of arthritis, but it can make it feel worse. It is sensible to be aware of this and to try to find ways of coming to terms with the condition and dealing with the stress it causes.

**Remember:** Try to avoid stress, anxiety and depression. Find ways of relaxing. Share your problems. Take control of your life and your arthritis, and don’t let it control you.

### Glossary

**Cartilage** — strong, tough material with a slippery surface which covers the bone ends. It acts as a shock absorber and allows smooth movement between bones.

**Ligament** — a tough, fibrous band which holds two bones together in a joint.
Spondylosis – osteoarthritis of the small joints in the neck and back. Commonly present in all of us, often without causing any symptoms.

Synovium – the inner layer of the joint capsule which produces synovial fluid.

Tendons – strong fibrous cords that connect muscles to bones.

Useful addresses

The Arthritis Research Campaign (arc)
PO Box 177
Chesterfield
Derbyshire S41 7TQ
Phone: 0870 850 5000
www.arc.org.uk

As well as funding research, we produce a range of free information booklets and leaflets. Please see the list of titles at the back of this booklet.

Arthritis Care
18 Stephenson Way
London NW1 2HD
Phone: 020 7380 6500
Helplines: 020 7380 6555 (10am–4pm Mon–Fri)
or freephone: 0808 800 4050 (12pm–4pm Mon–Fri)

Offers self-help support, a helpline service (on both numbers above), and a range of leaflets on arthritis.

Dial UK (Disability Information & Advice Line)
St Catherine’s
Tickhill Road
Doncaster
South Yorkshire DN4 8QN
Phone: 01302 310123
www.dialuk.org.uk
Disabled Living Foundation (DLF)
380–384 Harrow Road
London W9 2HU
Phone: 020 7289 6111
Helpline: 0845 130 9177 (10am–1pm Mon–Fri)
www.dlf.org.uk

Employment/benefits
Your Jobcentre or Jobcentre Plus office can put you in touch with your local Disability Employment Adviser. For information on benefits you can contact the Benefit Enquiry Line on 0800 882200.

Employment Medical Advisory Service (EMAS)
To find your local office, see the telephone directory under ‘Health & Safety Executive’. The address and phone number should also be available in all workplaces. Alternatively, you can get this information from:
HSE Infoline
Caerphilly Business Park
Caerphilly CF83 3GG
Phone: 08701 545500
www.hse.gov.uk/contact/index.htm

nras (National Rheumatoid Arthritis Society)
Briarwood House
11 College Avenue
Maidenhead SL6 6AR
Phone: 01628 670606
www.rheumatoid.org
A national charity which focuses specifically on rheumatoid arthritis.
RADAR (Royal Association for Disability & Rehabilitation)

12 City Forum
250 City Road
London EC1V 8AF
Phone: 020 7250 3222
www.radar.org.uk

Relate

See the telephone directory under ‘Relate’ or the Yellow Pages under ‘Counselling and Advice’ for your local Relate centre. Or Relate Head Office can be contacted at:
Herbert Gray College
Little Church Street
Rugby
Warwickshire CV21 3AP
Phone: 0845 456 1310 or 01788 573241
Helpline: 0845 130 4010 (9.30am–4.30pm Mon–Fri)
www.relate.org.uk
Ankylosing Spondylitis
Antiphospholipid Syndrome
Behçet’s Syndrome
Carpal Tunnel Syndrome
Fibromyalgia
Gout
Introducing Arthritis
Lupus (SLE)
Osteoarthritis
Osteoarthritis of the Knee
Osteomalacia (Soft Bones)
Osteoporosis
Paget’s Disease of Bone
Polymyalgia Rheumatica (PMR)
Polymyositis and Dermatomyositis
Psoriasis
Psoriatic Arthritis
Raynaud’s Phenomenon
Reactive Arthritis
Reflex Sympathetic Dystrophy
Rheumatoid Arthritis
Scleroderma
Sjögren’s Syndrome
Vasculitis

Back Pain
Feet, Footwear and Arthritis
Joint Hypermobility
Knee Pain in Young Adults
A New Hip Joint
A New Knee Joint
Pain in the Neck
The Painful Shoulder
Shoulder and Elbow Joint Replacement
Tennis Elbow

Are You Sitting Comfortably?
Caring for a Person with Arthritis
Diet and Arthritis
Driving and Your Arthritis
Gardening and Arthritis
Keep Moving
Looking After Your Joints (RA)
Pregnancy and Arthritis
Sexuality and Arthritis
Sports Injuries
Stairlifts and Homelifts
Work and Arthritis
Work-Related Rheumatic Complaints
Your Home and Arthritis

Drugs and Arthritis (general info.)
Adalimumab
Anakinra
Azathioprine
Cyclophosphamide
Cyclosporin
Etanercept
Gold by Intramuscular Injection
Hydroxychloroquine
Infliximab
Leflunomide
Local Steroid Injections
Methotrexate
Non-Steroidal Anti-Inflammatory Drugs
Penicillamine
Steroid Tablets
Sulphasalazine

A summary leaflet listing the main topics covered by all the others shown here
The Arthritis Research Campaign (arc) is the only major UK charity funding research in universities, hospitals and medical schools to investigate the cause and cure of arthritis and other rheumatic diseases. We also produce a comprehensive range of over 80 free information booklets and leaflets covering different types of arthritis and offering practical advice to help in everyday life.

arc receives no government or NHS grants and relies entirely on its own fundraising efforts and the generosity of the public to support its research and education programmes.

Arthritis Today is the quarterly magazine of arc. This will keep you informed of the latest treatments and self-help techniques, with articles on research, human interest stories and fundraising news. If you would like to find out how you can receive this magazine regularly, please write to: Arthritis Research Campaign, Ref AT, PO Box 177, Chesterfield S41 7TQ.
How we raise our funds

We constantly need to raise money by our own efforts to fund our work.

As well as a head office fundraising team we have an extensive network of regional staff, volunteer fund-raising groups and charity shops throughout the UK.

Where our money goes

Every year, we raise approximately £24 million to fund around 350 research projects across the whole of the UK.

In addition, arc funds the Kennedy Institute of Rheumatology in central London, at a cost of £3.1 million per year. We also set up the Arthritis Research Campaign Epidemiology Unit in Manchester, currently funded at £1.6 million a year, which collates data on arthritis and its cost to the community.
Please add any comments on how this booklet could be improved.

Feedback is very valuable to arc. However, due to the volume of correspondence received, we regret that we cannot respond to individual enquiries made on this form.

Please return this form to: Arthritis Research Campaign, PO Box 177, Chesterfield S41 7TQ

The Arthritis Research Campaign was formerly known as the Arthritis and Rheumatism Council for Research. Registered Charity No. 207711.
A team of people contributed to this booklet. The original text was written by a doctor with expertise in the subject. It was assessed at draft stage by doctors, allied health professionals, an education specialist and people with arthritis. A non-medical editor rewrote the text to make it easy to understand and an arc medical editor is responsible for the content overall.