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Joint Pain

There are many causes of joint pain. The different causes result in differing features, treatments and outcomes.

Most causes of joint pain are harmless and resolve without any long-term problems. However, some causes of joint pain require treatment for a long time and cause long-term joint problems.

This leaflet summarises the most common causes of joint pains, and discusses when you should seek help if you have joint pain. There are links to many of the specific conditions which cause joint pain.

What is joint pain?

Joint pain is discomfort that arises from any joint. The medical word for joint pain is **arthralgia**. This is different to the word **arthritis**, which means inflammation of the joint, which causes pain and sometimes warmth, redness and/or swelling of the joint. A joint can be painful without being inflamed, or it can be both painful and inflamed. See also the separate leaflet called Arthritis.

Joint pain may affect just one joint or it may affect many different joints. The pattern of the joint pain in terms of how many and which joints are affected will depend on the underlying cause.

Some causes of joint pain require urgent treatment. For example:

- If you have an infection in a joint (septic arthritis) then you will need to be seen in hospital as an emergency.
- If you have a broken bone (fracture) which involves a joint.
- If you are thought to have rheumatoid arthritis then you will need an urgent appointment with a specialist because starting treatment early will reduce the risk of long-term problems.

What are the causes of joint pain?

There are many causes of joint pain. The possible causes will partly depend on your age. The possible causes for joint pain in children are different to the possible causes for adults.

The cause of joint pain may be obvious, such as following a sports injury. At other times it may need investigations and a referral for you to see a specialist to find the diagnosis.

Joint pain may also be caused by different structures in or around the joint. The underlying cause may therefore be a problem with:

- The lining of the joint.
- The bones of the joint or near the joint.
- The tendons, ligaments or muscles around the joint.

Joint pain may also be caused by pain felt along the course of a nerve. This is called 'referred pain'. For example, a problem in your hip may cause you to also feel pain in your knee. Nerve pain also occurs when a 'slipped disc' in your back causes pain in your leg (called sciatica after the sciatic nerve which is often the one being squashed by the out-of-place disc).

The following is a list of the most common causes of joint pain. There are many more less common causes that your doctor may need to consider. See the links for more information about each condition that can cause joint pain.

The list separates conditions usually affecting one joint from conditions affecting more than one joint for each age group. However, it isn't as simple as this as the two lists overlap. Sometimes conditions usually affecting one joint may affect a few different joints. Conditions usually affecting many joints may sometimes cause pain in just one joint, especially at the beginning of any underlying illness.

Causes of joint pain in adults - usually affecting more than one joint

- Any general body infection: joint pains may be caused by any general body infection, especially a flu-like illness with high temperature (fever). Many joints feel painful, or there may be a feeling of pain 'all over' or in all joints.
- Osteoarthritis (OA): the most common form of arthritis in the UK. This is a joint pain caused by a 'wear and tear' of the joint. It may be most noticeable at first in just one joint, such as the hip or knee, but as time goes on usually affects several joints. As well as the hip, knee and hands, the many joints in the spine are often affected. See the separate leaflet called Osteoarthritis.
- Rheumatoid arthritis (RA): causes inflammation, pain, and swelling of joints. Painful and stiff joints are often worse in the morning in people with RA. Persistent inflammation over time can damage affected joints. The severity can vary from mild to severe. See the separate leaflet called Rheumatoid Arthritis.

- Psoriatic arthritis: causes inflammation, pain, and swelling of joints in some people who have a skin condition called psoriasis. See the separate leaflet called Psoriatic Arthritis.
- Reactive arthritis: caused when a joint reacts to an infection elsewhere in the body. The infection which triggers reactive arthritis is not actually in the joint but is usually in the gut or the bladder outlet (urethra). See the separate leaflet called Reactive Arthritis.
- Gout: causes attacks of painful inflammation in one or more joints. The pain of a gout attack can be severe. Gout often first occurs in just one joint, most commonly the big toe, but may go on to affect other joints. See the separate leaflet called Gout.
- Fibromyalgia: causes pains and tenderness in many areas of the body, as well as tiredness and other symptoms. See the separate leaflet called Fibromyalgia.
- Ankylosing spondylitis: this is a form of arthritis. It mainly affects the lower back but other joints and other parts of the body
 are sometimes affected. See the separate leaflet called Ankylosing Spondylitis.
- Vitamin D deficiency: when this is severe, joint pains can be one symptom. See the separate leaflet called Vitamin D
 Deficiency.
- Connective tissue diseases for example, conditions such as systemic lupus erythematosus and scleroderma: connective
 tissue diseases affect tissues throughout the body, including tendons, ligaments, skin, eyes, cartilage, bone and blood
 vessels. See the separate leaflets called Ehlers-Danlos Syndrome, Lupus (Systemic Lupus Erythematosus) and
 Scleroderma (Systemic Sclerosis).
- Menopause: women going through the menopause commonly experience joint and/or muscle pains, among other symptoms. See the separate leaflet called Menopause.

Cause of joint pain in adults - usually affecting just one joint

- **Joint, bone or soft tissue injuries**: injury to the joint (for example, joint dislocation), bone (a fracture) or surrounding muscles, tendons or ligaments (soft tissue injury sprains or tears of the tissues). Also see the separate leaflet called Sports Injuries.
- Problems of soft tissues which occur specifically in certain joints:
 - Knee: see the separate leaflets called Knee and Kneecap Pain (Patellofemoral Pain), Housemaid's Knee (Prepatellar Bursitis), Meniscal Tears (Knee Cartilage Injuries) and Knee Ligament Injuries.
 - **Elbow**: see the separate leaflets called Student's Elbow (Olecranon Bursitis) and Tennis Elbow (lateral epicondylitis).
 - Shoulder: see the separate leaflets called Rotator Cuff Disorders and Frozen Shoulder (adhesive capsulitis).
 - Ankle: see the separate leaflet called Ankle Injury (Sprained or Broken Ankle).
- Joint and bone infections: infection of the joint (septic arthritis) or infection of the surrounding bone (osteomyelitis). See the separate leaflets called Septic Arthritis and Osteomyelitis.
- Other infections: these may also cause joint pain for example, see the separate leaflet called Lyme Disease.
- Bone cancer or leukaemia: see the separate leaflets called Primary Bone Cancer and Leukaemia.
- Paget's disease of bone: see the separate leaflet called Paget's Disease of Bone.

Causes of joint pain in children and teenagers

Many of the causes of joint pain in adults can also be the cause in children. However, because of developing bones and joints, there are other conditions that can cause joint pain in children and teenagers. These include:

- Juvenile idiopathic arthritis (JIA): a condition in which joint inflammation occurs in children under the age of 16 years. See the separate leaflet called Juvenile Idiopathic Arthritis.
- Osgood-Schlatter disease: a cause of knee pain, particularly for sporty teenagers. It causes pain and tenderness at the front of the knee just below the kneecap. See the separate leaflet called Osgood-Schlatter disease.
- Sinding-Larsen Johansson disease: a similar knee condition that may affect teenagers during periods of rapid growth. The pain occurs at the front of the knee, slightly higher than the pain in Osgood-Schlatter disease. Resting the knee for several months, treatments with medicines for pain relief, and physiotherapy, may be needed. The outcome is usually very good but symptoms may persist for at least one year.
- Henoch-Schönlein purpura: a condition that can cause a skin rash, tummy (abdominal) pain and joint pains. Most people who develop Henoch-Schönlein purpura are children. See the separate leaflet called Henoch-Schönlein Purpura.
- **Growing pains**: aches, usually in the legs, which are common in children. It is not known what causes growing pains but, despite the name, they are not due to growing. They are not serious and settle in time of their own accord. Growing pains usually affect the areas between the joints, not the joints themselves, however. See the separate leaflet called Growing Pains.

Hip pain in children may be serious and needs urgent assessment by a doctor. The possible causes of hip pain in children include those conditions that can affect any joint, such as septic arthritis.

Conditions specifically affecting the hip joint in children may be harmless, such as irritable hip (transient synovitis) which usually resolves within a few weeks but may recur. See the separate leaflets below for more serious conditions, which include:

- Developmental Dysplasia of the Hip (age 0-3 years).
- Perthes' Disease (usually 4-8 years and mostly affects boys).
- Slipped Capital Femoral Epiphysis (most often occurs in boys aged 10-17 years).

When should you see a doctor?

Make an appointment with your doctor if your joint pain is accompanied by:

- Swelling.
- Redness.
- Tenderness and warmth around the joint.

See a doctor immediately if your joint pain is caused by an injury and is accompanied by:

- Joint deformity.
- Inability to use the joint.
- Intense pain.
- Sudden swelling.

See a doctor if you have any concerns, especially if:

- · You feel unwell.
- You have a persisting fever.
- You have other symptoms such as night sweats or weight loss.
- The pain persists for more than two weeks.
- The pain is not relieved by simple medicines for pain relief such as paracetamol or ibuprofen.
- You are getting joint pain at night, or pain which wakes you in the night.

Will I need any tests (investigations)?

Joint pain often resolves without the need for any tests. Your doctor can help to diagnose the cause of the joint pain. This will involve asking you questions about your symptoms and examining the affected joints. Your doctor may also arrange for you to have blood tests and an X-ray to help find out the reason for your joint pain. For some joint conditions, an ultrasound scan can be helpful in diagnosing the cause. In some cases more specialised tests will be needed, such as other scans or keyhole surgery to look inside the joint (arthroscopy).

What is the treatment for joint pain?

Many causes of joint pain are harmless and resolve without treatment or just with medicines to help relieve the pain until it resolves. For other causes, you may need to seek help for joint pain - for example, from a doctor or a physiotherapist.

Self-care

- Try an over-the-counter medicine to relieve the pain, such as paracetamol or ibuprofen. You may also find that non-steroidal anti-inflammatory drugs (NSAIDs) in the form of gels or creams rubbed into the painful joint are helpful. These are available over the counter, and examples include ibuprofen, diclofenac and ketoprofen. They have been found to be particularly effective for minor injuries, such as sprains, strains or overuse injuries. They are less useful for longer-standing joint pains but may provide some relief for people with joint pains due to osteoarthritis.
- Avoid using your joint in ways that cause or worsen the pain. You may have to avoid sports, driving or long walks, depending
 on which joint is affected. However, it is very important to stay active so that the muscles around the joints don't become
 weak.
- Ice packs may be helpful in some instances, particularly in the first day after an injury. See the separate leaflet called Heat and Ice Treatment for Pain to read more about safe and appropriate use of ice packs. In some cases, ice may do more harm than good if not used in the right way, and the evidence is still unclear about the benefits.

Further treatment

Any further treatment will depend on the underlying cause. Some causes of joint pain will require long-term treatment and you may need to see a joint specialist (a rheumatologist or an orthopaedic surgeon). Assessment and treatment from a physiotherapist and/or an occupational therapist may also be needed.

What is the outcome?

The outcome (prognosis) will depend on the underlying cause of joint pain. Many causes of joint pain resolve completely with no problems later on.

Other causes of joint pain (for example, osteoarthritis or rheumatoid arthritis) may need long-term treatment and may continue to cause problems. Long-term problems may include persistent joint discomfort and restrictions with using the affected joint(s).

Further reading & references

- Osteoarthritis: care and management in adults; NICE Clinical Guideline (February 2014 last updated December 2020)
- Rheumatoid arthritis in adults: management; NICE Guideline (July 2018 last updated October 2020)
- Rheumatoid arthritis; NICE CKS, April 2020 (UK access only)
- Derry S, Moore RA, Gaskell H, et al; Topical NSAIDs for acute musculoskeletal pain in adults. Cochrane Database Syst Rev. 2015 Jun 11; (6):CD007402. doi: 10.1002/14651858.CD007402.pub3.
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