

Hip disorders

The hip joint is the largest joint of the human body. It is necessarily complicated so as to allow a wide range of motion while still supporting the weight of the body.

The hip is a ball and socket joint. The thigh bone (femur) ends with a rounded projection or ball (femoral head), which fits into the socket (acetabulum) of the pelvic girdle.

Both the ball and socket are lined with cushioning tissue called cartilage. The joint is sealed inside a tough synovial capsule, which contains lubricating fluid to further aid smooth motion. The ball is anchored firmly into the socket with tough connective tissue called ligaments. The muscles of the legs overlay these ligaments.

Symptoms

The symptoms of a hip problem may include:

- Pain in the hip joint (usually felt in the groin area)
- Referred pain to the thigh and knee
- Limping
- Reduced range of motion
- Muscle stiffness
- Pain when trying to put weight through the leg on the affected side.

Causes of hip problems

Some causes of hip problems include:

- Osteoarthritis – the most common form of arthritis to affect the hips
- Other forms of inflammatory arthritis – such as rheumatoid arthritis and ankylosing spondylitis
- Bone fracture
- Developmental conditions – such as dysplasia of the hip
- Perthes disease – also known as Legg-Calve-Perthes disease or avascular necrosis of the hip
- Slipped capital femoral epiphysis
- Irritable hip syndrome
- Soft tissue pain.

Osteoarthritis

Osteoarthritis is associated with degeneration of the joint cartilage and with changes in the bones underlying the joint. The cartilage becomes brittle and splits. Some pieces may break away and float around inside the synovial fluid within the joint. This can lead to inflammation.

Eventually, the cartilage can break down so much that it no longer cushions the two bones. Current theory suggests that the cartilage loses its elasticity because of cellular changes. Commonly affected joints include those of the hip, spine, shoulder, fingers, knees, ankles, feet and toes.

Rheumatoid arthritis

Rheumatoid arthritis is an immune-mediated condition that causes inflammation in synovial joints. Although people who develop rheumatoid arthritis may have a predisposition to the condition, the 'trigger' for developing symptoms is unknown. Inflammation in joints results in an increase in synovial fluid (swelling of the joint), pain and morning joint stiffness. Joints that can be affected include those of the hands and wrists, elbows, shoulders, neck, jaw, hips, knees, ankles and feet.

Ankylosing spondylitis

This uncommon form of inflammatory arthritis can target the spine, knees and hips. Typical symptoms include pain and stiffness first thing in the morning. The cause is unknown, but genes are thought to play a significant role. Ankylosing spondylitis can occur by itself or in association with other disorders, including Crohn's disease, ulcerative colitis and psoriasis. Caucasian men aged between 16 and 33 years are most susceptible.

Bone fracture

Older people are more prone to hip fractures because bones become less dense as we age. In some cases, a person develops osteoporosis – a disease characterised by the excessive loss of bone tissue. The bones become soft and brittle, and prone to fractures and deformities. More women than men experience osteoporosis.

Developmental dysplasia of the hip

Developmental dysplasia of the hip means that the hip joint of a newborn baby is dislocated or prone to dislocation. The socket is abnormally shallow, which prevents a stable fit. Slack ligaments may also allow the femoral head to slip out of joint. Some possible causes include a breech (feet first) delivery, family history and disorders such as spina bifida. Around 95 per cent of babies born with developmental dysplasia of the hip can be successfully treated.

Perthes' disease

Perthes' disease is a disease of the hip joint that tends to affect children between the ages of three and 11 years. The ball of the femur is softened, and ultimately damaged, due to an inadequate blood supply to the bone cells. Most children with Perthes' disease eventually recover, but it can take anywhere from two to five years for the femoral head to regenerate. The cause is unknown.

Slipped capital femoral epiphysis

During childhood, the femoral ball is attached to the femur with a growth plate of bone. In some teenagers, the ball can slide from its proper position, causing the leg on the affected side to turn out from the body. Possible contributing factors include the shape and location of the femoral head in relation to the femur, increased sex hormones during puberty, and weight gain. Without treatment, slipped capital femoral epiphysis will worsen and the child may experience arthritis of the hip joint in later life.

Irritable hip syndrome

Irritable hip syndrome (sometimes called toxic synovitis) is a temporary form of arthritis, which tends to affect prepubescent children for unknown reasons. Boys with toxic synovitis outnumber girls four to one. Symptoms include hip pain (usually on one side only), inability to walk (or limping), knee pain and fever. Most cases of toxic synovitis resolve by themselves within one or two weeks.

Soft tissue pain and referred pain

Pain can appear to be coming from the hip joint but, in fact, may be related to soft tissue structures around the hip such as muscles, tendons and bursae, or may be referred from a back problem. Pain experienced over the lateral aspect (side) of the hip may be due to trochanteric bursitis.

Diagnostic methods

Depending on the cause, diagnosis of a hip problem can involve a number of tests including:

- Medical history
- Physical examination
- X-rays
- Ultrasound scans
- Bone scans
- Biopsy
- Blood tests.

Treatment options

Treatment may include:

- **For all forms of arthritis** – there are non-pharmacological treatment options (exercise programs, education and self-management programs) as well as specific treatment for different types of arthritis. For osteoarthritis, the most common type of arthritis, simple pain-killing medication is often effective. Joint replacement surgery (hip or knee) may be the best option for people with severe osteoarthritis.
- **Rheumatoid arthritis and ankylosing spondylitis** – will usually require more complex medical treatment, such as anti-inflammatory medications and disease-modifying medicines. Some people may also require surgical procedures.
- **Fracture** – treatment includes admission to hospital and surgery.
- **Developmental dysplasia of the hip** – a special harness is worn for between six and 12 weeks to hold the joint in place while the baby's skeleton grows and matures.
- **Perthes' disease** – options include bed rest, pain-killing medication, a brace or splint (worn for between one and two years to encourage the regrowing femoral head to sit inside the socket) and surgery to treat deformities.
- **Slipped capital femoral epiphysis** – surgery can reposition the femoral head and screw it firmly into place.
- **Irritable hip syndrome** – options include bed rest, pain-killing medications and non-steroidal anti-inflammatory drugs (NSAIDs).
- **Soft tissue pain** – local symptomatic measures such as an exercise program, anti-inflammatory creams and simple pain-relieving medications may help soft tissue pain.

Where to get help

- Your doctor
- Rheumatologist
- Paediatrician
- Arthritis Victoria Tel. (03) 8531 8000 or 1800 011 041

Things to remember

- The hip joint is the largest joint of the human body.
- The hips can be affected by a wide range of disorders including arthritis, irritable hip syndrome and slipped capital femoral epiphysis.
- Pain around the hip may be due to soft tissue pain syndromes or referred pain from a back problem.
- Treatment options depend on the cause but may include medication, exercise, splinting and surgery.

This page has been produced in consultation with, and approved by:

Australian Rheumatology Association (Vic Branch)

Content on this website is provided for education and information purposes only. Information about a therapy, service, product or treatment does not imply endorsement and is not intended to replace advice from your doctor or other registered health professional. Content has been prepared for Victorian residents and wider Australian audiences, and was accurate at the time of publication. Readers should note that, over time, currency and completeness of the information may change. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2011 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.