

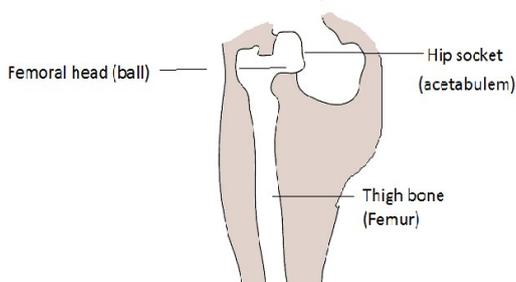
Fact Sheet



Perthes Disease

What is Perthes Disease?

The hip is the joint that allows movement of the round head at the top of the femur in the cup shaped indent in the pelvis (known as the acetabulum). It connects the bones of the leg to the pelvis.



Perthes disease or Legg-Calve-Perthes disease as it is sometimes known, is a condition which develops in childhood and affects the hip joint. There are two parts to the hip joint; the ball or femoral head and the socket.

In cases of Perthes, the blood supply to the top of the thighbone (femur) and the ball part of the joint becomes disrupted. This means that the blood supply to femoral head is restricted, causing the bone to flatten and become squashed (necrosis), affecting the hip shape and function.

It is not known why the blood supply to the hip becomes affected; it is not reported to be caused by physical injury or a problem with blood vessels in the rest of the body and there are no other childhood conditions which are known to be linked to Perthes.

In most cases, over time, the affected blood vessels begin to regrow, allowing production of new bone in the damaged area. Recovery usually takes a few years as the bone around the femoral head reforms; in a similar, but more prolonged way, to recovery following a fracture.

In short Perthes is where the blood supply to the hip becomes disrupted, affecting the growth of the ball part of the joint (femoral head). The femoral head becomes squashed and this affects how the hip joint works.

Why does it happen?

It is not known why Perthes occurs. However, it is approximately 4 times more common in boys than girls and most cases occur between 5 and 8 years of age. Active children tend to be more affected.

Diagnosis

The first symptom is usually a painless limp and reduced movement (stiffness) in the affected joint, but symptoms can be very subtle, with a mild ache in the thigh or knee not being uncommon.

The pain can start suddenly and be felt at the knee (known as referred pain) or may build up over a few weeks. An x ray will confirm a diagnosis of Perthes and sometimes blood tests will be used to rule out infection. An MRI or bone scan may also be used to help make the diagnosis

Treatment

Many children with Perthes disease do well without any surgical intervention and the hip regrows into a good or at least reasonable shape. The challenge in managing children

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with the condition lies with identifying the children who are likely to benefit from treatment early.

Medical agreement on the best way to treat Perthes has not yet been reached. Pain relief, such as analgesics, anti-inflammatory drugs and restricting high impact activity are commonly used to alleviate symptoms. Physiotherapy and or hydrotherapy and, potentially surgery to the femoral (thighbone) head or socket are sometimes used.

The intention is to keep the ball shaped head of the femur (thigh bone) in the hip socket and improve the movement of the joint. This will help preserve the shape of the head of femur (the ball) as round as possible. The more round the femoral head is at the end of the course of the disease, the better the long-term function of the hip.

The final aims of such treatments are to help the child have a normally formed hip joint when they grow up and avoid the development of wear and tear arthritis in adult life.

When will treatment start?

Consultants will assess each child individually, following a diagnosis and decide on an appropriate treatment pathway. This could include;

Observation - if the hip positioned well and there is no problem with muscle tightening, regular outpatient appointments may be all that are needed to monitor the hip joint and range of movement as it reshapes itself. Regular X-ray monitoring will confirm this.

Traction – If the condition is associated with pain and/ or poor range of movement, traction can be used. Traction used bandages and weights to ease the pressure on the joint and blood supply.

Hydrotherapy – may help improve movement of the joint.

Surgery - may be considered to improve the position and containment of the ball into the socket and protect it from losing its round shape.

Surgical options may include one or a combination of the procedures listed below;

Soft tissue release: Release of tight muscles in the groin that reduce the range of movement in the hip.

Pelvic osteotomy: an operation to alter the position of the hip socket.

Femoral osteotomy: an operation to alter the position of the 'ball' part of the joint at the top of the femur.

Shelf acetabuloplasty: Enlarging the hip socket using bone from elsewhere on the pelvis.

Some surgeons may use a hip spica cast after some of the above operations. A further publication is available from Steps about Caring for a Child in a Hip Spica.

How will it affect my child?

In all children with Perthes disease, the blood supply to the hip will improve overtime, whether they have a surgical intervention or not. The hip continues to grow and remodels over time.

The long-term outcome depends on the final shape of the hip joint once the remodelling is completed and the growth of the child has finished. If the hip is reasonably round at that stage, the long-term outlook is good.

Some children require surgical treatment to achieve this. A small number of hips may remain flattened, squashed or out of the socket, despite treatment. In these cases, wear and tear arthritis is likely to develop in relatively young adulthood. A hip replacement would then be necessary.

Following a period of rest and avoidance of high impact activities, a child should be able to resume their normal routine. About half of children with the condition will be vulnerable to arthritis in later life.

Sources of support

Our helpline (01925 750271) is open from 9am until 5pm on weekdays, for any questions you may have about practical support. Medical enquiries to be passed to our panel of NHS consultants. Email info@steps-charity.org.uk with a specific request or fill in a contact form on our website. The Steps closed Facebook Group is a friendly and safe way of discussing your worries, sharing tips and finding emotional support. Our Family Contact service identifies someone else who has been through a similar situation and who's happy to talk about their experiences, on a one-to-one basis, to offer support.

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