

Information for patients
Perthes Disease

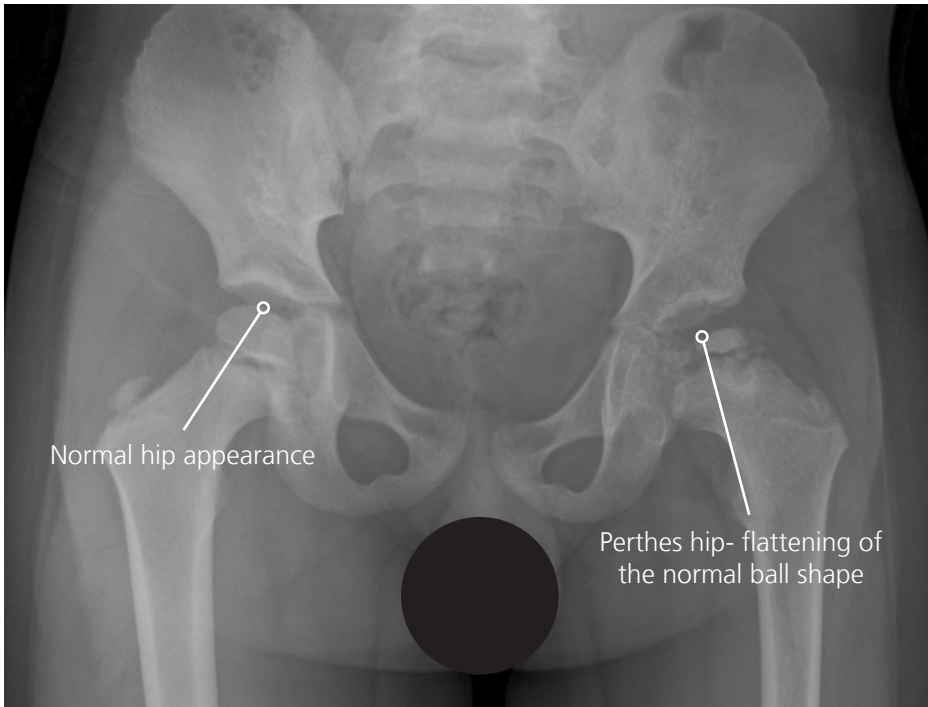


Alice Ward

What is Perthes?

Perthes disease is a condition that affects the hip joint in young children. The hip joint is made of two parts; the 'ball' and the 'socket'. Perthes affects the 'ball' part (femoral head) of the hip joint.

The condition occurs due to a temporary disturbance of the blood supply to the femoral head. We do not however fully understand what causes the blood supply to be affected. Disruption of the blood supply causes the bone to soften, leading to flattening of the femoral head's normal ball shape. Over time, the blood supply is restored and healing occurs. Although some re-shaping can occur, the abnormal shape of the femoral head does not always return to normal, especially in severe cases.



Who gets Perthes?

Perthes is not a common condition, affecting around 1 in 10,000 children. It is around four times commoner in boys than girls. The commonest age group affected is between the ages of 4-8 years, but it can affect younger or older children in some cases. In around 10% of cases the other hip is also affected.

What are the symptoms of Perthes?

The symptoms of Perthes differ between individuals. Symptoms can also come and go, and will often have been present for a few months before the diagnosis is confirmed, usually with an X-ray.

Children commonly complain of pain around the groin and thigh, but in some cases it is felt at the knee (referred pain). Pain is often worse with physical activity. This may cause your child to limp when walking, or have stiffness around the affected hip.

How is Perthes treated?

There is some disagreement in the medical world as to the best way to treat Perthes. Most children with Perthes will however only require simple treatment and observation. The main aim of treatment is to reduce pain and stiffness, and prevent deformity to the hip joint. Simple treatment options include:

- Observation
 - Full recovery from Perthes can take 2-3 years as the femoral head goes through the healing process. During this period your child will need to be seen regularly in clinic for examination of the hip and X-rays to monitor the progression.
- Pain Relief
 - If your child is struggling with pain they may require simple painkillers such as paracetamol or anti-inflammatory drugs.
- Physiotherapy
 - Your child will usually be referred to the physiotherapists. They will provide advice and exercises to strengthen and restore movement around the hip, and may include hydrotherapy. This often helps improve the pain.
 - If your child is struggling your surgeon may even recommend a period of inpatient physiotherapy on our Children's Ward (Alice Ward).
- Activity restriction / modification
 - If pain is bad your child may initially require crutches to help with walking. These are not however required routinely. Once the pain improves normal walking is encouraged.
 - During the early phases of Perthes your child will usually be advised to avoid impact activities such as running and jumping. This is to prevent further flattening of the femoral head. We can provide a letter for school to make them aware of the restrictions.

- Non-impact activities such as swimming or cycling (under supervision) are good forms of exercise that your child may be able to continue if your doctor and physiotherapist is happy
- Over time your doctor will be able to advise on a gradual return to normal sporting activities as the healing process continues.

Most children will not need any surgery. In more severe cases, surgery is sometimes required to help restore movement, improve pain, or improve the shape of the hip joint. If surgery is likely to help your child, your surgeon will discuss this with you in more detail at the time. Surgical options include

- Femoral osteotomy
 - An operation that changes the position of the femoral head so that it fits into the socket better.
- Pelvic osteotomy
 - An operation that changes the position or shape of the 'socket' to cover the femoral head
- Soft tissue releases
 - Releasing tight muscle around the hip that restrict movement of the hip

What are the long-term effects of Perthes?

Because your child is still growing, the hip will continue to grow and remodel over time. The long-term effects of Perthes will depend on the amount of flattening that has occurred to the femoral head once it is fully healed. If the round shape of the femoral head is maintained the outlook is likely to be good.

A minor degree of leg shortening can occur because of the Perthes. This does not usually cause major problems, and can be easily managed with a small insole worn in the shoe if required.

When the amount of flattening of the femoral head is severe, this is more likely to lead to wear and tear of the hip joint (osteoarthritis) in early adulthood. If and when this becomes problematic, a hip replacement may be required in later adult life.

Notes:

If you require a special edition of this leaflet

This leaflet is available in large print. Arrangements can also be made on request for it to be explained in your preferred language. Please contact the Patient Advice and Liaison Service (PALS) email: rjah.pals.office@nhs.net

Feedback

Tell us what you think of our patient information leaflet. Please send your comments to the Patient Advice and Liaison Service (PALS) email: rjah.pals.office@nhs.net

Date of publication: November 2023

Date of review: November 2025

Author: Mr Derfel Williams

© RJAH Trust 2023

The Robert Jones and Agnes Hunt
Orthopaedic Hospital NHS Foundation Trust,
Oswestry, Shropshire SY10 7AG
Tel: 01691 404000
www.rjah.nhs.uk