

## Perthes disease

### What is Perthes disease?

Perthes disease is a condition of the hip which occurs in children. A normal hip is similar to a ball and socket joint, and in Perthes, the blood supply to the femoral head (the "ball") is interrupted. This causes the bone to become soft and collapse ("avascular necrosis") often leading to deformity. It usually begins between the ages of 4 and 10. More boys are affected than girls.

Over several months the blood vessels re-grow and the blood supply returns to the bone tissue. New bone is then laid down and the femoral head re-grows and re-models over several years. This is similar to what would happen after a fracture, but takes longer.

### Why does it happen?

It is not clear why this problem occurs. Studies have shown, however, that between 2-10% of children with Perthes disease have at least one family member who has been affected by the condition.

### What are the symptoms?

- Thigh or groin pain: Can be quite sudden or be present for several weeks.
- Knee pain (may be the only symptom initially).
- Difficulty with walking or running (limping and loss of movement in the hip).
- Muscle wastage in the upper thigh.

### What is the prognosis?

This varies between individuals but pain usually eases in the teenage years.

Usually children who are diagnosed at 6 years or younger have the best outcome.

Some children may go on to need a hip replacement in later adulthood.

### Diagnosis

X rays will be taken to confirm the diagnosis and sometimes a bone scan or MRI.

A blood test may be done to exclude a bone infection.

### Treatment

The aim of treatment is to encourage the healing process and to ensure that the femoral head remains well located in the hip socket.

A treatment plan will be put in place by the consultant according to the severity of the condition and the age of the child.

Many children get better without any surgical treatment. These are usually under 5 years of age.

Treatment may include:

- Physiotherapy and home exercises to keep the hip joint mobile. This may include hydrotherapy.
- Use of crutches and limiting activity may be needed for a short time if symptoms are particularly bad.
- Sometimes the child may be admitted to hospital for traction and to rest the hip joint.
- Surgery may be necessary in severe cases: Soft tissue release of tight muscles to improve movement, or more extensive operations that aim to alter the angle of either the femoral head or the hip socket so that the hip joint is in a better position.

## Activity

In general, it is important to keep the hip moving as much as is tolerated to maintain good movement, strength and lubricate the joint.

A good activity for children with Perthes is swimming. This allows full range of movement without the pressure of weight bearing and means that children can continue a fun activity even when other activities are painful.

Activities to be avoided are those which cause a heavy impact on the hip joint such as running, jumping and contact sports.

Your consultant or physiotherapist can provide more specific advice about appropriate activities

In between clinic visits, if you need advice, please contact:

The Aftercare Team **01392 403509**

## Useful links

- NHS choices  
[www.nhs.uk](http://www.nhs.uk)
- The Perthes Association  
[www.perthes.org.uk](http://www.perthes.org.uk)

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

© Royal Devon and Exeter NHS Foundation Trust

Designed by Graphics (Print & Design), RD&E