



## Perthe's Disease

Perthe's disease (also known as Legg-Calve- Perthe's disease) is a condition which affects the hip in growing children. It is much more common in boys than girls and occurs most commonly in children aged between 4 and 10 years and can affect one or sometimes both hips. The cause is unknown.

The hip joint is a ball and socket joint made up of the round head of thigh bone (femoral head) with the cup shaped socket (acetabulum) of the pelvis.

### WHAT HAPPENS TO THE HIP?

In Perthe's disease the blood supply to the femoral head is affected and this causes damage and the disease progresses through a series of stages that can be seen on X-rays.

The major changes occur in three stages over 18 months to 2 years, but the disease takes approximately 4 years to run its course:

1. The blood supply to part of the femoral head is disturbed, causing loss of bone cells.
2. The femoral head softens and then collapses.
3. The blood supply returns and the bone repairs and then reshapes itself (remodelling)

### WHAT ARE THE SYMPTOMS?

Limping is the most common symptom. The limp may become more persistent and pain may develop. The pain is often felt in the thigh or hip but sometimes the knee is the only site of pain. Examination of the child by the orthopaedic surgeon generally shows restriction of hip movement.

### TREATMENT

The nature of Perthes' disease is variable. Severity depends on the child's age, and the extent of femoral head involvement. Older children, girls, and those with greater involvement of the femoral head are likely to require more complex treatment. Treatment aims to reduce pain and stiffness and prevent the femoral head from being misshapen (femoral head deformity). All children need regular review by the orthopaedic surgeon through the duration of the disease. Treatment can be non-operative or operative.

### GENERAL METHODS

Not all children require active treatment. Many will make a good recovery with only symptomatic treatment. This may involve restriction of activity such as running and high impact sports especially in the early stages. There are a few key points. Maintaining movement in the hip joint is perhaps the most important but this should be done without impact.

Swimming is an excellent form of exercise. A physiotherapist will also help you with an exercise program. Some children may require exercise in slings and springs, or the application of plaster casts to the lower limbs. Some children will require surgical management.

### PROGNOSIS

Children with Perthe's Disease are otherwise healthy but may be frustrated by physical restrictions. Most children may be physically active through later childhood and as young adults will have minimal symptoms. By age 30, one third of those affected has no symptoms, one third has intermittent hip pain, and one third has developed arthritis requiring treatment.