Perthes’ disease

What is Perthes' disease?
Perthes' disease is a disorder of the hip joint in children. Perthes' disease usually affects children between the ages of three and eleven years. It is more common in boys than in girls. In the majority of children, only one hip is affected.

The initial signs of the disease can be difficult to detect because children have trouble describing symptoms. In the early phase of Perthes' disease, your child will have an occasional limp which may become worse as the disease progresses.

What are the symptoms of Perthes’ disease?
The symptoms of Perthes' disease may include:
- An occasional limp in the early phase
- Knee pain
- Worsening pain and limping as the disease progresses
- Pain in the knee, thigh or groin on movement or when putting weight through the leg
- Decreased movement
- Thinner thigh muscles on the affected leg
- Uneven leg length – the affected leg may become shorter

Even though your child may have these symptoms, your child is healthy.

What causes Perthes' disease?
The cause of Perthes’ disease is unknown. It may run in families, but the exact trigger is not known.

The disease has several phases. The top of the femur (thigh bone) is called the femoral head and is the shape of a ball so it can fit into the hip socket. The blood supply to the ball is temporarily lost and the head softens and collapses, causing the ball-shape to become flattened, eventually resembling the shape of a mushroom. In this phase the head of the femur may no longer fit inside the socket of the hip. As the head of the femur heals, it may even grow outside the socket.

Most children with Perthes’ disease recover completely. It may take two to five years for the body to repair the damaged bone. If the femoral head is not seriously deformed, normal hip function will return. Excessive deformity may lead to continued stiffness and early development of arthritis in the hip.

Diagnosis
In the early stages, Perthes' disease may not be detected by x-ray. Your doctor may request a bone scan, ultrasound or MRI scan. These tests are generally only required to make a diagnosis if the disease cannot be seen on x-ray.

Treatment
The goal of treatment is to:
- Reduce pain
- Increase movement
- Reduce deformity of the head of the femur
The treatment your doctor prescribes will depend on your child’s age and the severity of your child’s condition.

Younger children
If the hip joint is only mildly affected, your child may need no immediate treatment. If there is pain or stiffness, they will need to rest to relieve the hip joint from weight-bearing movements. Your child should not take part in any high-impact activities, like jumping or running, until the joint has recovered. Low impact activities like swimming and gentle cycling are recommended. Your child will need regular checkups with a doctor to monitor their condition.

Older children
Children who are older at diagnosis will require careful evaluation to decide if they require more complex treatment. The doctor may advise a period of rest using crutches or a wheelchair. This may be up to one year. Non-surgical treatment aims to keep the ball of the femur deeply seated inside the hip socket. If the hip becomes very painful and the movement in the hip becomes limited, the doctor may decide to use bracing or plaster casting.

Will my child need surgery?
In some children surgery may be needed. The aim of surgery is to improve your child’s hip function and promote long-term, regular physical activity. Your doctor will discuss surgical options that are appropriate for your child with you.

Emotional support
Children with Perthes' disease are otherwise healthy and usually want to lead the same active lifestyle as their friends. If you try to limit their activity, they may become frustrated and anxious. Be understanding and supportive. Help your child to find other activities they enjoy that do not require too much weight bearing on the affected leg. Recovery is a long, slow process. Reassure your child that they will recover and will eventually be able to return to their regular physical activities.

Remember:
- Recovery is a slow process. Be patient and explain this to your child.
- Most children recover completely.
- Avoid high impact activities, like running and jumping, until the hip joint heals.