Perthes Disease

What is Perthes Disease?

Perthes disease is a childhood hip condition where the bone of the femoral head (ball of the hip joint) is damaged by a loss of blood supply. The damaged bone becomes softened and liable to collapse, resulting in progressive deformity of the hip joint. As the condition occurs in children with joints which are still growing, the hip has the potential to recover, however in some cases normal growth and development of the joint can be disrupted.

What is the expected outcome?

This depends on many factors, however the age of the child is perhaps the most important predictor of outcome. Generally, the older the child is when first diagnosed with Perthes disease, the worse the outcome.

What initial treatments are recommended?

This is a difficult question to answer as there are many (often quite conflicting) opinions regarding the best management of Perthes disease in children. Generally speaking, young children developing Perthes have a good chance of having excellent outcomes with observation alone. In older children and adolescents, surgery is sometimes recommended to help assist the joint develop a normal round shape. For younger patients with Perthes disease, I generally recommend referral to a Paediatric Orthopaedic Surgeon for evaluation.

What problems can arise in adolescence and adulthood?

The long term outcome of the hip after Perthes disease depends mostly on the degree of deformity remaining in the joint at the end of skeletal growth (around age 16-18 years). Hip joints with significant irregularity in shape are predisposed to early onset osteoarthritis. Severe deformity due to Perthes disease typically includes a flattened femoral head (ball of the hip joint) and characteristic changes of the upper thigh bone resulting in a stiff hip and short leg.

What treatments are available for adults with previous Perthes?

This depends on the presenting symptoms, shape of the hip joint and how much damage has accumulated within the joint surfaces. Many patients can improve their symptoms without surgery, however as the deformities within the hip are permanent, once the joint has become painful continued slow progression can be predicted. In patients with pain relating to early damage to the hip, joint preserving procedures such as hip arthroscopy (key hole surgery) can reliably improve symptoms, however the underlying hip joint deformities resulting from Perthes cannot usually be corrected with arthroscopy alone. In younger adults with more significant deformity of the hip joint due to previous Perthes disease, a Femoral Osteotomy may be recommended to improve function of the joint, decrease pain and restore leg length. Open Debridement can also be used to reshape the joint. Pelvic osteotomy may also be recommended if the hip joint socket is abnormally shallow as a result of Perthes disease. Ultimately, hip joints with end stage arthritis secondary to Perthes are best treated with an artificial joint replacement. In these situations, both
hip replacement and hip resurfacing are effective solutions.

This information handout has been written by Dr Patrick Weinrauch for the purposes of patient education. The details provided are of general nature only and do not substitute for professional recommendations based an individual clinical assessment.