

legg-calve-perthes disease

Legg-Calve-Perthes, or Perthes disease, is a rare disease that affects children's hip joints. It is named after the three doctors who led to its discovery and treatment. The hip joint is a ball and socket joint. The ball is the upper most part of the femur, known as the femoral head. The socket is the cup like structure of the pelvis, known as the acetabulum. These two parts of the skeleton fit together to form the hip joint.

what is Perthes disease?

In Perthes disease, blood flow to the head of the femur is interrupted and the bone begins to weaken. The weakened femoral head starts to collapse and to lose its shape. Eventually, blood supply returns and the bone begins to heal. Even with the bone healing, the femoral head may no longer have its round shape. If the head of the femur isn't shaped correctly, it can lead to:

- Pain
- Decreased range of motion of the hip joint
- Arthritis

who typically has Perthes disease?

Again, it is a rare condition. It is seen in less than one percent of the population, and affects one in ten thousand children. It occurs in children ages four to ten years old. Perthes disease is four to five times more common in boys than girls. The condition more often only involves one hip joint. But, ten percent of patients will develop Perthes in both hips. However, both hips do not develop the condition at the same time.

what are symptoms of Perthes disease?

A child with Legg-Calve-Perthes disease will often have a limp. They will also usually have pain and stiffness in the affected hip. They may complain of pain in the groin, thigh or knee. The pain is typically worse with activity and gets better with rest. The diagnosis is made after a thorough exam and X-rays. Sometimes an MRI or bone scan will be ordered to help determine what stage the disease is in.

how is Perthes disease treated?

Treatment can depend on age and on how severe the condition is. Children who are young and only found to have minimal changes on their X-rays are monitored with repeat X-rays throughout growth.

(continued on reverse)

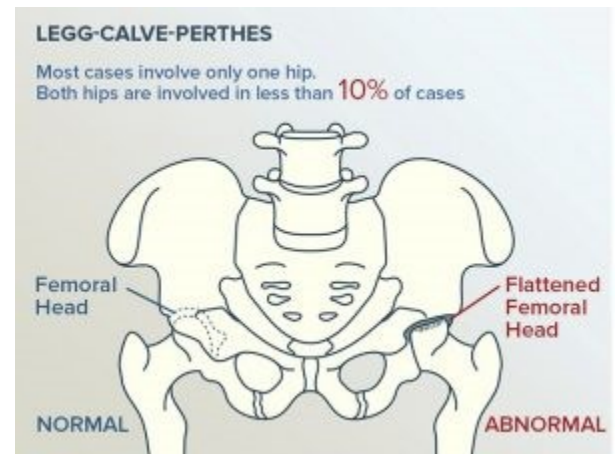


Image from Burlington Orthotic Centre: <http://burlingtonorthotics.com/blog/legg-calve-perthes-disease/>

how is Perthes disease treated? (continued)

For more severe cases, the goal is to help the femoral head (ball) to keep its shape while healing occurs. This allows the femoral head to fit well into the acetabulum (socket). If the ball and socket no longer fit well together, arthritis in the hip joint develops at an earlier age than is normal. In some cases, a cast or brace may help to keep the ball in its correct position in the socket. Surgery may become necessary to re-establish the natural position of the hip joint. In these surgeries, a cut in the femur bone is made to correct its position. The acetabulum can surgically be made deeper to help fit the femoral head.

For all Perthes patients, anti-inflammatory medications can be used to help decrease swelling and inflammation in the hip joint. Physical therapy may be prescribed to help keep motion in the hip joint.

what is the cause of Perthes disease?

The exact cause of blood flow disruption to the head of the femur and development of Perthes Disease is not known. But, research and investigation are ongoing. There are a few theories on what may lead to it:

- Certain genetic factors
- Abnormal clotting factors in the blood
- Repetitive micro-trauma to the joint

how long does Perthes disease last? will it go away?

The entire disease process may last several years.

The outcome for most children with Perthes Disease is good. The

younger children are at the time of diagnosis, the better their ability is to develop new,

strong bone. The more of the femoral head that is affected, the greater the risk for deformity. If the head of the femur is still not the right shape when the child is grown, they may get early arthritis. These patients are more likely to need a hip replacement as adults.



Image from International Perthes Study Group:

<https://perthesdisease.org/2016/09/08/getting-to-know-the-four-stages-of-perthes/>

