

# What is Legg Calve Perthes Disease (LCPD) or Perthes Disease



## Orthopedic Clinic

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## What is Legg Calve Perthes Disease (LCPD) or Perthes Disease?

Legg Calve Perthes Disease (LCPD) or Perthes for short is a childhood disorder of the hip. It happens when blood flow is disrupted to the ball or head of the thigh bone (femur). As your child moves and bears weight on this hip bone it starts to lose its smooth round shape and starts to become flat inside the hip socket.

## What causes Perthes Disease?

There is no known cause of Perthes disease. Blood flow to your child's bone gets interrupted and the bone loses its blood supply, this interruption in blood flow makes the bone cells die. When the bone cells die in the femur it starts to collapse and become flat in shape. The flat bone causes pain as it is not moving in the hip socket properly. This leads to irritation and inflammation of the hip resulting in pain. Eventually blood supply will return to the ball or head of the thigh bone, but this will happen slowly and over an extended period of time. Perthes disease can take up to several years to fully heal.



## Symptoms of Perthes Disease

- Pain in knee, thigh or groin
- Pain in hip that gets worse with activity
- Hip stiffness
- A limp
- Limited range of motion in the hip

## How do you diagnose Perthes

- Physical exam
- X-ray
- MRI
- Blood test to rule out infection

## How does Perthes Disease change over time?

Perthes disease is broken down into four stages:

### **Phase 1 - Avascular Necrosis Stage:**

Blood supply to the head of the femur is disrupted by an unknown cause. This makes the hip become painful, stiff and inflamed. The head or ball of the femur begins to collapse and the bone cells die from lack of nutrients and oxygen usually found in the blood. This stage can last for several months and up to one year.

### **Phase 2 - Fragmentation Stage:**

During this stage, the body absorbs the dead bone cells and replaces them with new healthy cells. The ball of the femur begins to reshape. The hip can still be painful and inflamed at this time. This stage can last for 1 to 3 years.

### **Phase 3 – Reossification:**

During this stage the head of the femur starts to reshape with new bone from a flattened surface to more of a round ball. This stage can take from 1 to 3 years.

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### Phase 4 -Remodeling:

In the final stage, the bone cells that formed the newly rounded head of the femur are replaced with normal bone cells. This can last up to a few years.

## What is the treatment for Perthes

Depending on the surgeon and the stage of your child's Perthes disease, your treatment options may vary. The most common treatments we recommend are:

- **Rest** – your child's activity may need to be limited. He or she may have crutches - to avoid further flattening of the femoral head e.g. No running or jumping activities
- **Pain medication** – an anti-inflammatory to help reduce pain and inflammation. This may be adjusted or stopped depending on your child's stage in the disease.
- **Physiotherapy** – to restore range of motion and reduce pain
- **Surgery** –this depends on your surgeon as well as the Phase the disease is in

## Goals of treatment

The goal of treatment in Perthes disease is to help maintain and regain the shape and surface of your child's ball or head of thigh bone. We want to reduce the amount of irritability and inflammation your child is feeling in the hip. As well as maintain hip movement.

## Healing

Perthes disease is a condition that will resolve over time but may have long term effects such as early arthritis and loss of movement in the hips.

[www.perthesdisease.org](http://www.perthesdisease.org)



If you have any questions please call:  
604-875-2345 ext. 7273

**It's good to ask!**