INFORMATION FOR PARENTS

Perthes disease

Perthes disease (also called Legg-Calvé-Perthes disease) is a childhood hip condition in which the blood supply to the ball of the hip is temporarily interrupted. The bone softens and then slowly heals and reshapes over several years. Treatment focuses on keeping the hip moving and comfortable while it heals.

At a glance

Who it affects	Usually children aged about 4 to 10; around four to five times more common in boys
Main signs	A limp, and pain in the hip, groin, thigh or knee
How long it lasts	The hip goes through stages of softening and healing over about 2 to 4 years, sometimes longer
Treatment	Usually physiotherapy, pain relief and activity changes; some children need an operation
Follow-up	Regular checks and X-rays until the hip has healed

What happens in Perthes disease

The ball of the hip joint (the femoral head) needs a good blood supply to stay healthy. In Perthes disease, part or all of the ball loses its blood supply for a while. The affected bone softens and can collapse or flatten. Over time, new blood vessels grow in and new bone forms, and the ball gradually reshapes itself.

The condition goes through four stages:

1. **Initial stage:** the blood supply is lost and the bone becomes dense on X-ray.
2. **Fragmentation:** the old bone is broken down and the ball may lose its round shape. This is when the hip is most at risk.
3. **Healing (re-ossification):** new bone is laid down.
4. **Remodelling:** the ball continues to reshape until growth stops.

Why it happens

The cause is not known. It is not caused by an injury or by anything you or your child did, and it is not contagious. It usually affects one hip, but both hips are affected in about 1 in 10 children, usually at different times.

Signs to look out for

- a limp, often worse after activity and at the end of the day
- pain in the hip, groin or thigh, or **pain felt only in the knee**
- stiffness of the hip, especially turning the leg inwards or moving it out to the side

- in time, the affected leg may look thinner or slightly shorter

Some children have very little pain and the limp is the main sign.

How it is diagnosed

Perthes disease is diagnosed with X-rays of both hips. In the early stages the X-ray can look normal, and an MRI scan may be needed. Blood tests are sometimes done to rule out other causes of a limp. Repeat X-rays are taken during follow-up to see how the hip is healing.

Treatment

The aims of treatment are to keep your child comfortable, keep the hip moving well, and keep the ball of the hip well positioned in the socket while it heals, so that it reshapes as round as possible.

- **Pain relief:** simple painkillers such as paracetamol or ibuprofen during painful flare-ups.
- **Activity:** your child does not need complete rest. High-impact activities such as running, jumping and contact sports may make the hip sore and are usually limited during the painful stages. Swimming and cycling are encouraged, as they keep the hip moving without heavy impact.
- **Physiotherapy:** exercises to keep the hip moving, particularly stretching the leg out to the side and turning it inwards. A physiotherapist will teach you a home programme.
- **Crutches or a wheelchair** may be used for longer distances during flare-ups.
- **Surgery:** some children, particularly older children and those with more of the ball affected, may be advised to have an operation. This usually involves cutting and repositioning the thigh bone or the socket so that the ball sits deeper in the hip joint. These operations are carried out in specialist children's hip centres.

Your surgeon will consider your child's age, how much of the ball is affected and how well the hip moves when recommending treatment.

Living with Perthes disease

- Let your child's school know, so PE and playtime activities can be adapted during painful phases.
- Encourage activities your child can still enjoy, such as swimming, cycling and upper-body games.
- Children can feel frustrated by the long course of the condition and the limits on sport. Support from family, school and other families can help. The UK charity STEPS Worldwide offers information and support for families affected by Perthes disease.

The longer term

How the hip turns out depends mainly on the shape of the ball once it has finished healing. Many children grow up with a well-functioning hip. Some develop hip pain or arthritis in adult life, especially if the ball has healed in a flattened shape. Your surgeon will discuss what to expect for your child at each stage.

When to seek medical advice

Call 999 or go to A&E if:

- your child is very unwell, drowsy or floppy

Seek same-day advice (NHS 111, GP or A&E) if:

- your child has a limp or leg pain with a fever or feeling unwell
- your child suddenly cannot put weight on the leg
- the hip becomes hot, red or swollen
- pain is rapidly getting worse or wakes your child at night

Contact Mr Umar's team if:

- your child's pain, limp or stiffness is gradually getting worse between appointments
- your child develops a limp or pain in the other hip

Sources

This guide is based on Mr Umar's practice and is guided by British Orthopaedic Association and British Society for Children's Orthopaedic Surgery guidance and NICE Clinical Knowledge Summaries (Perthes disease).

Questions?

Children's appointments at The Alexandra Hospital, Cheadle Danielle Heron · 07528 523911

This is general guidance. Always follow the specific advice of your child's own clinical team, as their care may differ.

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