

Perthes disease

Information for patients from the Paediatric Orthopaedic Service

What is Perthes disease?

The cause of Perthes disease is unknown, but we do know that at some point the blood supply to the hipbone is damaged. It only occurs in bone that is still growing and therefore only children can get Perthes disease. Children between the ages of 2 and 16 can be affected by this condition, but it most commonly starts between the ages of 3 and 10 years.

Boys are more likely than girls to suffer from Perthes disease at a ratio of 5:1.

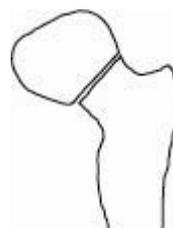
The process of Perthes disease is divided up into stages:

Evolution stage

When the blood supply to the hipbone is damaged the bone starts to soften. The hipbone usually looks round on X-ray, however in Perthes disease the hipbone will begin to look flattened on X-ray.



Normal hipbone



Flattened hipbone

As the Perthes disease continues the flattened bone will start to look crumbly on X-ray. This is a normal process in Perthes disease.



Fragmentation phase



Healing stage

Over time the blood supply will repair itself naturally and the bone will start to re-grow and remould. At this stage you will be able to see on x-ray the hipbone start to thicken up and begin to appear more rounded.



Regrowth phase

This whole process can take anything between three and five years. Doctors will unfortunately be unable to give you an accurate idea on the length of time, as each child is so different.

It should also be mentioned that about 12% of children with Perthes disease in one hip will go on to develop Perthes disease in the other hip as well. Your Doctor will closely monitor the situation.

The more movement your child's hip has whilst the hipbone is softening, and the younger your child is at the onset of the Perthes disease, the better the final outcome will be.

The symptoms

These are usually present in the evolution stage and begin to settle during the healing stage. The symptoms consist of:

- Pain in the hip or knee especially during activity
- A limp
- Stiff hip.

What is the treatment for Perthes?

There is no treatment that will stop the hipbone from softening as the damage to the blood supply has already occurred. However there are lots of things that can be done to make sure that the hipbone heals as round as possible.

If the hipbone is rounder once the bone has fully healed, your child will have more hip movement. Having a round hipbone with good movement will mean that your child will have less chance of developing osteoarthritis in early adulthood.

This is why we check your child's hip movement and take hip x-rays on a regular basis to check the stage of the Perthes disease. Initially the x-rays may be taken every two to four months but this may decrease to every six months once the hipbone starts to show good signs of re-growth.

It should be noted that in some cases children may go on to require an operation if their hipbone is at a high risk of healing in a poor shape. Your consultant will discuss this with you in detail if your child requires the operation.

To help the hipbone be as round as possible when the bone re-grows and to minimise the risk of your child developing problems such as early onset osteoarthritis the following advice should be followed: -

- [Reduce the amount of high impact activity your child does](#)

High impact means activities such as running and jumping. They can safely walk shorter distances but they should use crutches (partial weight bearing) or a wheelchair for long distances. Whether your child uses crutches or a wheelchair will be decided between yourself and your physiotherapist.

- [Encourage your child to do daily mobility exercises at home](#)

You will be referred to a paediatric physiotherapist who will give you exercises to do at home daily. They will also advise on safe activities such as swimming and cycling to replace the running and jumping. The aim of these exercises is to try to increase the range of movement of the affected hip and to make sure the muscles stay strong.

What can I do?

- Talk to the [Perthes Association](#). This is a charity run by parents who have children with Perthes disease. They can offer a lot of practical advice and support for you and your child. Contact details for the [Perthes Association](#) are included in these information sheets.
- Ensure that your child doesn't run or jump and also doesn't walk too far.
- Ensure that your child does their exercises at least once a day.
- Talk to your child's school. They can help to practice your child's exercise programme instead of Physical Education (PE) and they can encourage your child to use their crutches or wheelchair during playtimes.

What is physiotherapy?

The role of physiotherapy is to teach you and your child how to maintain or improve your child's hip movement.

We do this by teaching you and your child simple exercises that you can practice at home and at school. We will try to incorporate the exercises into play as much as possible to make them less repetitious and therefore encourage your child to continue them throughout their condition.

What type of exercises will my child have to do?

[Home exercises](#)

All children will have a land-based exercise programme that they practice every day. A physiotherapist will go through each exercise with you and your child.

[Hydrotherapy](#)

These are exercises performed in a pool within the Physiotherapy Department. Exercises in water prevent too much weight going through their affected hip. The warm water can also help the pain and make movement easier.

Hydrotherapy is beneficial for children with very stiff and painful hips. Once you and your child have been taught the exercises (usually over a six week period) you can then continue to practise them at your local swimming pool on a regular basis at a time that suits your family. Many local pools offer a reduced cost for children requiring access to the swimming pool for medical reasons.

It is important to remember that hydrotherapy is an extra programme of exercises. Your child will still have to do their daily home programme.

Why does my child have to do exercises?

There have been many studies made of Perthes disease and the final outcome following the healing phase. Most studies have found that children with good hip movement have had a good outcome when the bone has healed.

We are therefore aiming to teach you and your family how to encourage exercises that aim to maintain your child's hip movement or improve the movement if possible.

Any form of exercise that is minimal weight bearing and that moves the hip joint is a good idea. This is why we also encourage general swimming and cycling as suitable activities. You must remember though that overdoing any form of exercise can cause muscle pain. We therefore advise your child to only exercise for 20 to 30 minutes at a time.

Your child at school

What is my child allowed to do at school?

We usually advise children that they are able to walk indoors freely as this should not increase their pain. This applies to your child at school as well.

During break-time we suggest your child uses their crutches/wheelchair, as this will discourage them from running and jumping. If the school feels that safety is an issue, then the child should be allowed to sit inside with a friend at break times.

Will the school allow my child back to school with a wheelchair?

It is best to discuss this with your child's head teacher, but we have found schools to be very accommodating. There should be no problems with access to the school as your child is able to do steps, etc. and does not require the crutches/wheelchair except for long distances such as school trips or in the playground. The main difficulty is finding a safe area to store the wheelchair when it is not being used.

What about Physical Education (PE)?

Talk to your child's teacher and see what they are able to offer within their PE lesson. Remember your child should not **run** or **jump**, but moving the hip is good.

Any PE activity that does not include running or jumping is fine. Working on balance or static ball skills, climbing without jumping off the apparatus is all to be encouraged.

The most important thing to remember is that your child's teacher could have 20 to 30 more children in their PE lesson. They may not feel able to monitor your child's activities and children being children, jumping off that high piece of apparatus might just be too tempting! If this is the case then it is best that your child does not do PE but does their home exercise program at school instead.

What about school trips?

Your child should not have to miss out on school trips as long as they are able to get around with their crutches/wheelchair. Talk to your child's school and prepare before the trip.

Can the school talk to a medical professional?

We are always happy to talk to your child's school if you give us permission to do so. We would never discuss your child or their condition without your prior agreement. As the school usually have questions regarding PE the best person for you to advise them to talk to, if you can't answer their question, is your physiotherapist.

Useful contacts

Consultant Orthopaedic Surgeon - Mr Cornell
Queen Elizabeth the Queen Mother Hospital
Ramsgate Road, Margate, Kent
Telephone: 01843 22544 extension 62860

Physiotherapists - Jenny Seggie or Suzanne Gray
Telephone: 01233 616618
Email: jenny.seggie@nhs.net or suzanne.gray2@nhs.net

Red Cross

Temporary loans of wheelchairs and commodes. Self-referrals accepted. £20 deposit requested.

- Ashford branch
223 Quantock Drive, Ashford
Open Monday/Wednesday/Friday - 10 to 12pm
Telephone: 01233 620356

- Canterbury branch
Lower Chantry Lane, Canterbury
Open Monday/Wednesday/Friday - 10 to 12pm
Telephone: 01227 766145

- Margate branch
Ellington Road, Margate
Open Monday/Wednesday/Friday - 11 to 1pm
Tel: 01843 223739

- Herne Bay branch
176 Mortimer Street, Herne Bay
Open Monday/Wednesday/Friday - 10 to 12pm
Tel: 01227 365918

Wheelchair services – A long term loan that requires a medical referral.

- Canterbury office – Wheelchair Service
Trust Headquarters
Littlebourne Road, Canterbury
Telephone: 01227 812393

- Aylesham Office – Wheelchair Service
New Aylesham Health Centre
Queen's Road, Aylesham
Telephone: 01304 843777

Perthes Association
PO Box 773
Guildford, GU1 1XN
Telephone: 01483 306637
E-mail: admin@perthes.org.uk
Web site: www.Perthes.org.uk

The following information has been provided by a parent

What help can I get for my child?

It is a worrying time for parents when you are told your child has Perthes disease, but there is help out there to make it easier.

My 8 year old daughter has Perthes disease and she has had the pelvic osteotomy operation. This meant her being in a plaster from her chest to her feet for six weeks.

She is now walking without crutches indoors and uses her crutches at school. When we are out shopping or walking she uses her wheelchair.

I know how scary it can be, but we got through it.

I was lucky I was able to talk to another mum who had been in my position and it really helped me. Just having the reassurance it would all be ok.

Disability Living Allowance

Once your child has been diagnosed with Perthes disease and your child is using crutches or a wheelchair, you are entitled to apply for Disability Living Allowance.

Blue Badge

If your child is in receipt of Disability Living Allowance you are then entitled to apply for a blue parking badge. This is very useful as getting your child out and about can be very difficult with crutches and a wheelchair.

Child Tax Credit

If you already receive Child Tax Credit your child may be entitled to a higher rate once they are receiving Disability Living Allowance.

Call the Child Tax Credit office for further information.

If you need to speak to me about any concerns, I would be more than happy to talk to you.

My name is Rosie, I am eight years old. This is my story of Perthes.



Last March 2007 I got diagnosed with Perthes disease at the William Harvey Hospital at Ashford. They gave me crutches which made it easier for me. I was referred to Canterbury Hospital where I met Jenny. She was very nice and made me and my mum feel better. She ordered me a wheelchair and gave me exercises to do to help me move better.

I started hydrotherapy at the hospital swimming pool. The pool is very small and cosy. Mum got me a wheat bag which I use when I get pain in my hip and at night when I go to bed.

Then my wheelchair arrived! After a few days it got boring but then I learnt how to do wheelies, it was very fun!

About two months later we went to see Jenny. She said that I could walk around the house and in the classroom without my crutches. As well as that I started gym at the hospital instead of hydrotherapy.

It was December I had an idea of putting Tinsel on my crutches. They looked really cool!

Time flew and Jenny said that I could walk to school on my crutches instead of going in my wheelchair. That made me feel great!

The next time we went to have an x-ray, Jenny said it looked good because my ball joint in my hip had stopped crumbling. Yes!!!

Having crutches at first was strange but then I got used to it. I now go horse riding, swimming and do lots of bike riding as it is good for my hip and I enjoy it all. Things can only get better!



This leaflet has been produced with and for patients