

Department of Paediatric Gastroenterology, Hepatology and Nutrition

Percutaneous liver biopsy

Information for parents

This leaflet explains what a percutaneous liver biopsy involves and the benefits and risks of the procedure.

What is a liver biopsy?

A liver biopsy is a short procedure usually carried out under general anaesthetic. A small piece of liver is taken, using a special needle that goes through the skin (percutaneous). It can then be examined under a microscope or tested chemically in the hospital laboratory.

What are the benefits of your child having a liver biopsy?

There are many different reasons for having a liver biopsy. Your doctor will discuss the benefits of this procedure in relation to your child's condition. Generally it is to aid diagnosis of the cause of your child's symptoms and to check if any scarring is present in the liver.

What are the risks of the liver biopsy?

- The most common problem is mild to moderate pain around the biopsy site and/or in the upper abdomen. Pain may last for several hours and can affect up to 1 in 10 children. The pain is usually easily controlled with simple pain killers, such as paracetamol.
- There is a small risk of bleeding (1 in 100 patients) after a liver biopsy and this is why children are observed for up to six hours after the procedure. This is the period in which a bleed would show up with signs of tachycardia (elevated pulse), low blood pressure or unusually severe abdominal pain. If any of these symptoms occur the child will require to stay under observation in hospital. Children who have a very low risk of bleeding and live within an hour's ride from the hospital can go home the same day.

- Children who are considered to be at a higher risk (profound jaundice, poor clotting, under one year old or have disease in another organ) are usually nursed on a ward overnight after the procedure.
- There is a small chance that the site can become infected. This generally only happens if the child has an immune problem. In some liver conditions there is a risk of generalised infection following the biopsy. In this situation the child will receive a prophylactic dose of antibiotic before and after the procedure. Your doctor will advise whether prophylactic antibiotics are recommended for your child.
- Following healing of the biopsy site there will be a small scar, similar to a chickenpox scar.

Alternatives

If a child is at high risk from bleeding a percutaneous liver biopsy may not be safe and 'an open, surgical biopsy' will be considered.

What do you we do to help prevent the risk of bleeding?

To help prevent the risk of bleeding the doctors will check that your child's blood is clotting well. We will also take a blood sample which we save and store just in case your child might require a blood transfusion after the procedure.

Sometimes an infusion of clotting factors and /or an injection of Vitamin K is needed before the procedure, to improve your child's blood clotting so that the biopsy can be done safely.

What is the preparation for a liver biopsy?

Your child will normally come to the hospital the day before the procedure (or in the morning if the procedure is planned for the afternoon). He/she will have blood tests before the procedure and possibly an abdominal ultrasound scan to look at the position of the liver.

Your child will need to starve for a few hours prior to the anaesthetic (no solids and milk for six hours, only clear fluids for two hours before the procedure). Local anaesthetic cream ('magic' cream) will be applied to the back of your child's hand and a cannula (plastic tube) is later inserted into a vein in the operating theatre by the anaesthetist. This cannula is used to give medicines for the anaesthetic and will be removed before the child goes home.

On the day of the liver biopsy you will have the opportunity to ask further questions about the procedure and you will also meet the anaesthetist who will answer your questions regarding the anaesthetic.

What happens after the liver biopsy?

Once your child has returned to the ward the nurse will check your child's pulse, breathing rate, blood pressure and the dressing over the biopsy site. These checks will be carried out frequently and regularly in the first few hours.

Your child may be drowsy after the procedure so we recommend he/she remains in bed for at least an hour but when your child is fully awake he/she can start to eat and drink small amounts.

When can your child go home?

Children should be able to go home approximately six hours after the procedure, as long as the postoperative observations are satisfactory and they are at 'low risk' from postoperative bleeding (see above).

What care will my child need at home?

- The evening after the biopsy your child may feel sore around the site of the biopsy. Normal single doses of Paracetamol can be given.
- Do not bathe your child that day, and keep the biopsy site covered with a plaster overnight. You may give your child a bath the next day and remove the plaster.
- School or nursery can be restarted two days after the procedure.
- Please contact the hospital and ask to speak to the Paediatric Registrar on call by ringing switchboard on 01223 245151 if your child shows any of the following symptoms:
 - a temperature of > 38.0 degrees Celsius for > two hours
 - severe abdominal pain not responding to paracetamol
 - breathlessness
 - vomiting yellow/ green fluid
 - pallor and or drowsiness
- During working hours you can contact one of our Gastroenterology Nurses on 01223 274757.

When will we know the results of the biopsy?

Your consultant will contact you by phone as soon as the results are available, usually within one to two weeks. Depending on the result of the biopsy we will arrange an outpatient review visit or if appropriate, arrange to change your child's treatment with the GP.

Occasionally the biopsy sample does not allow an accurate diagnosis (changes in the liver can be patchy and the sample may have missed the abnormal area). In this situation it might be necessary for the biopsy to be repeated.

Where Can I Get Further Information?

We hope this information will help you understand the procedure we have recommended for your child. However, if you have further questions please talk to the Paediatric Gastroenterology Nurse before you sign the consent form.

When you have discussed your child's diagnosis with a member of the gastroenterology team, you may find further helpful information from the Liver Disease Foundation. (www.childliverdisease.org/index.html).

Sources of evidence

This information has been adapted from the Birmingham Children's Hospital information leaflet.



We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk



Document history

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