Paediatric Inguinal Hernia Repair
/ Ligation of PPV

What is an inguinal hernia?

When a baby boy grows in the womb, the testicles develop in his abdomen. As the testicle descends into the scrotum, it drags a pocket of the abdominal lining (like the finger of a glove) with it. This pocket usually closes by itself shortly after birth.

If this pocket fails to close, the abdominal lining and sometimes the bowel can bulge through it, causing a lump to form in the groin area. This is called an inguinal hernia. Occasionally this persistent pocket can surround the testis and fluid from the abdomen can trickle down into the scrotum. This is called a hydrocoele (also known as ‘patent process vaginalis’ or PPV). Girls can also develop an inguinal hernia as the same pocket of abdominal lining is involved in the formation of the labia.

How is it treated?

If your child has an inguinal hernia, this will need to be treated with an operation. If the bowel remains trapped outside the abdominal cavity it can become damaged, requiring an emergency operation. The testicle can also be damaged by the poor blood flow to the area. To prevent these complications, your child needs to have the hernia repaired.

A hydrocoele persisting after the age of two is unlikely to disappear on its own. If untreated, it will be unlikely to cause significant problems for your child but will remain unsightly and may increase in size.

Are there any alternatives?

If your child is diagnosed with a hernia, surgical treatment is the only option. If the hydrocoele is decreasing in size a ‘watch and wait’ policy can be adopted. If it does not decrease in size, we would recommend surgery.

What preparation is needed?

Your child will be given a paediatric preoperative assessment. This is where you and your child will see the nurse, who will carry out a number of checks to make sure that he or she will be fit and well on the day of their operation. This will include measuring blood pressure, pulse and oxygen levels, and will also include weighing your child and seeing how tall they are. Occasionally the nurse will have to carry out other tests before the operation, but this will be discussed with you at the pre-op assessment.

The nurse will be able to tell you about the operation, and answer any questions you may have. We will also give you some written information about your operation and about what you can eat and drink before your operation. We can tell you what you need to bring to hospital. You will have the opportunity to look around the ward where your child will be staying.

The play specialist is also available at this clinic to talk to you and your child about going to the anaesthetic room and to help you both overcome any worries or concerns that you may have.

What happens on the day of the procedure?

Your child should have no solids or formula milk feed for 6 hours prior to anaesthesia. If you are breastfeeding, the last feed should be 4 hours prior to the anaesthetic. Clear fluids may be given up to 2 hours before anaesthesia.
If your child is on a morning list:
• Patients to be fasted ready for anaesthesia to start at 8.30am.
• No solids or formula milk after midnight.
• No breast milk after 4.30am.
• Clear fluids such as water or dilute squash may be taken until 6.30am.

If your child is on an afternoon list:
• Patients to be fasted ready for anaesthesia to start at 1.00pm.
• Light early breakfast finishing before 7.00am (no solids or formula milk after 7.00am).
• No breast milk after 9.00am.
• Clear fluids such as water or dilute squash may be taken until 11.00am.

Your child will be given a general anaesthetic during the operation (they will be asleep). The anaesthetist will come and see you before the operation to discuss this with you. You will be able to ask them any questions you may have about the anaesthetic.

What does the operation involve?
The operation is carried out under general anaesthetic. Once your child is asleep the surgeon will make a small incision (cut) in the groin and find the hernia sac or PPV and separate it from the blood vessels and the sperm tube (vas deferens) in a boy. Any bowel will be moved back into the abdomen and the hernia sac or PPV will be tied off with a stitch and the cut on the skin will be closed with dissolvable stitches.

What happens afterwards?
Your child will be able to go home the same day. The surgical team will see you at the end of the operating list to ensure there are no immediate complications. You will be sent home with instructions about post-operative care and in the case of a boy, an appointment to come back to the Gwithian unit for a testes check at 6 months.

Before you leave, the nursing staff will check that your child is well enough to go home. Your child’s groin will probably feel sore for a while after the operation and will look bruised and swollen. This will improve in the days following the operation. The stitches used during the operation will dissolve on their own so there is no need to have them removed. There may also be Steri-strips® which will fall off within five to seven days. You can give your child a quick (less than 5 minute) bath or shower from the day after surgery, but do not soak the area.

When can my child resume activities?
Your child can resume normal activities as soon as they feel able. They will restrict their own activity if they suffer any discomfort. Give them regular pain killers such as paracetamol and ibuprofen (unless they have an allergy or are asthmatic) for the first 48 hours. Your surgeon will let you know if they want your child to be restricted in terms of any other activities such as using ‘ride-on’ toys.

School age children should remain off school for at least 72 hours and should avoid sport for 10 days.

Are there any risks or complications?
As with all procedures, there are some risks from having this operation.
General risks:

**Bleeding:** This is usually minor and is stopped during the operation. Very occasionally patients develop a collection of blood called a haematoma, which requires a second operation.

**Infection:** All surgery has a risk of infection. If the wound becomes red, hot or weeps, or your child feels unwell you should consult your doctor. This happens in less than 1 in 20 children.

**Risks specific to herniotomy:**

**Testicular atrophy:** There is a small risk of damage to the sperm tube and the blood vessels to the testes while it is being separated from the hernia sac. If this occurs, the testicle on that side may be smaller than the other one, or very rarely it may shrink away. This usually would not affect your child's fertility or testosterone production as the remaining testicle will continue to function normally.

**Recurrence of hernia:** This is rare. If it happens your child will need further surgery to fix it.

**Anaesthetic complications:**
Every anaesthetic carries a risk of complications, but this is very small. Your child’s anaesthetist is an experienced doctor who is trained to deal with any complication. After an anaesthetic some children may feel sick and vomit. They may have a headache, sore throat or feel dizzy. These side effects are usually short-lived and not severe.

**What should I look out for?**
Call the ward or your GP if:
- your child is in a lot of pain and pain relief does not seem to help
- your child has a high temperature and paracetamol does not bring it down
- the wound site looks red, inflamed and feels hotter than the surrounding skin
- there is any oozing from the wound.
If you would like this leaflet in large print, Braille, audio version or in another language, please contact the Patient Advice and Liaison Service (PALS) on 01872 253545
Paediatric Inguinal Hernia Repair / Ligation of PPV

STATEMENT OF HEALTH PROFESSIONAL (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy)

I have explained the procedure to the child and their parent(s) / person with parental responsibility. In particular, I have explained the intended benefits and summarised the risks, as below:

- **Herniotomy / Ligation of PPV**

**Significant, unavoidable or frequently occurring risks:**
- **Bleeding**
- **Infection**

**Uncommon but more serious risks:**
- **Recurrence, testicular atrophy**

**Rare but serious risks:**
- **Risk from the anaesthetic**

Any extra procedures which may become necessary during the procedure:
- **Blood transfusion (required very infrequently)**
- **Other (please specify):**

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this child and their parent(s) / person with parental responsibility.

I have given and discussed the Trust’s approved patient information leaflet for this procedure: Paediatric Inguinal Hernia / Ligation of PPV (Herniotomy) RCHT1483 which forms part of this document.

I am satisfied that this child and their parent(s) / person with parental responsibility has the capacity to consent to the procedure.

This procedure will involve: ☐ General and/or regional anaesthesia ☐ Local anaesthesia ☐ Sedation

Health Professional signature: ___________________________ Date: ____________

Name (PRINT): ___________________________ Job title: ___________________________

STATEMENT OF INTERPRETER (where appropriate)

I have interpreted the information above to the child and their parent(s) / person with parental responsibility to the best of my ability and in a way in which I believe they can understand.

Interpreter signature: ___________________________ Name (PRINT): ___________________________ Date: ____________
STATEMENT OF PARENT / PERSON WITH PARENTAL RESPONSIBILITY

Please read this form carefully. If your treatment has been planned in advance, you should already have a copy of the patient information leaflet which describes the benefits and risks of the proposed treatment. If not, you will be given a copy now. If you have any further questions, do ask - we are here to help you and your child. You have the right to change your mind at any time, including after you have signed this form.

I agree to the procedure or course of treatment described on this form and I confirm that I have ‘parental responsibility’ for this child.

I understand that you cannot give me a guarantee that a particular person will perform the procedure. The person will, however, have appropriate experience.

I understand that my child and I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of the situation prevents this. (This only applies to children having general or regional anaesthesia).

I understand that any procedure in addition to those described on this form will only be carried out if it is necessary to save the life of my child or to prevent serious harm to his or her health.

I understand that tissue samples will only be taken in relation to the procedure explained to me. No samples will be taken for quality control, clinical education or research purposes.

I have been told about additional procedures which may become necessary during my child’s treatment. I have listed below any procedures which I do not wish to be carried out without further discussion.

I have received a copy of the Consent Form and Patient Information leaflet: Paediatric Inguinal Hernia / Ligation of PPV (Herniotomy) RCHT1483 which forms part of this document.

Signature: ___________________________ Name (PRINT): ___________________________ Date: ____________

Relationship to child: ________________________________________________________________

A witness should sign below if this patient is unable to sign but has indicated his or her consent.

Witness signature: ___________________________ Name (PRINT): ___________________________ Date: ____________

Child’s Agreement to Treatment (if child wishes to sign)

I agree to have the treatment I have been told about.

Child’s signature: ___________________________ Name (PRINT): ___________________________ Date: ____________

CONFIRMATION OF CONSENT (to be completed by health professional when the child is admitted for the procedure, if the parent / person with parental responsibility / child has signed the form in advance).

On behalf of the team treating the child, I have confirmed with the child and their parent(s) / person with parental responsibility, that they have no further questions and wish the procedure to go ahead.

Health Professional signature: ___________________________ Date: ____________

Name (PRINT): ___________________________ Job title: ___________________________

Important notes (tick if applicable):

☐ See advance decision to refuse treatment ☐ Parent(s) / person with parental responsibility has withdrawn consent (ask patient to sign/date here)

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