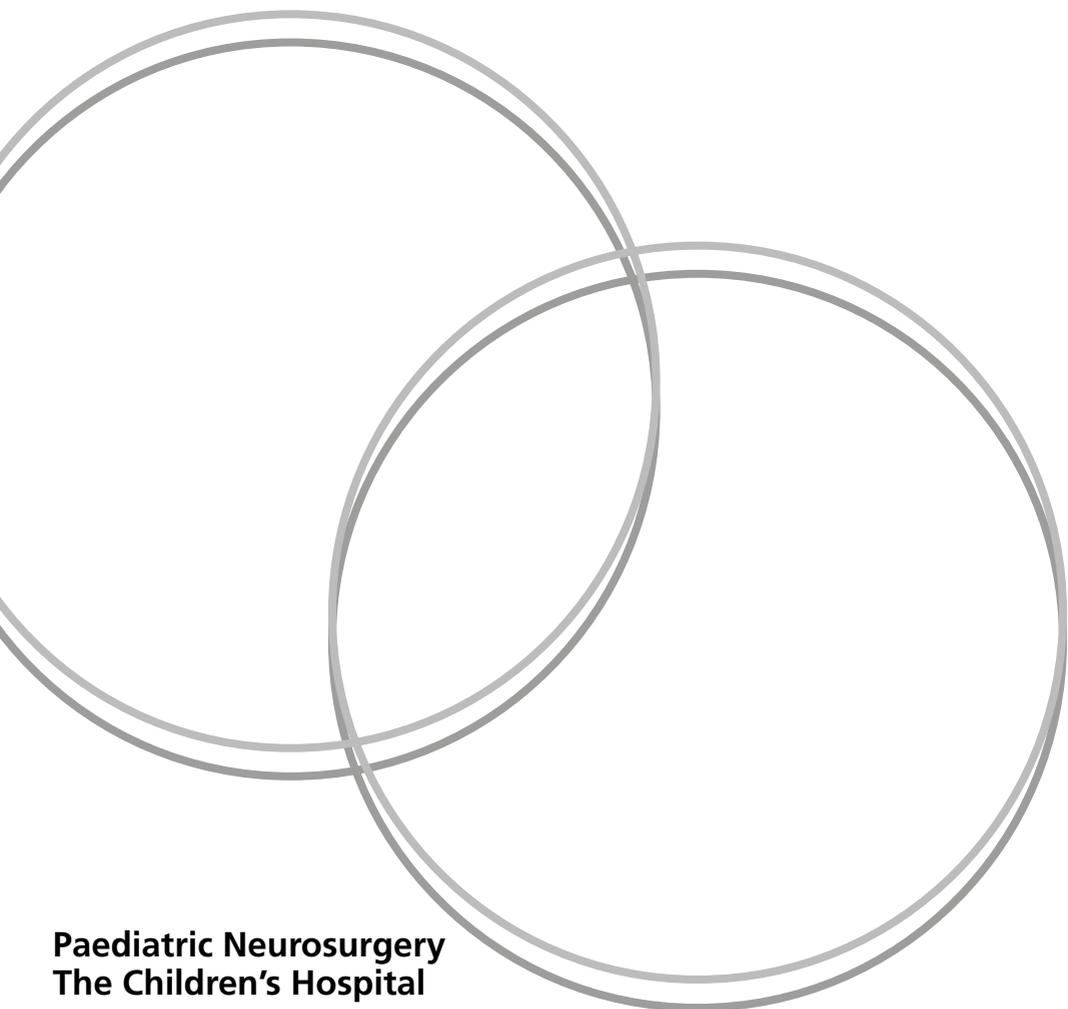




Oxford University Hospitals
NHS Foundation Trust

Spinal Surgery

Information for parents and carers



Paediatric Neurosurgery
The Children's Hospital

Why does my child need spinal surgery?

There are a number of different reasons why your child may be having spinal surgery. It may be because they have a spinal tumour or cyst that needs to be treated, or they may have a tethered spinal cord (where the spinal cord is stuck in the spinal canal) which needs to be treated with surgery. The specifics of your child's spinal surgery will be discussed with you by a neurosurgeon.

What does the operation involve?

The operation is carried out under a general anaesthetic. This means your child will be unconscious and will not be able to feel anything. A consultant anaesthetist (doctor who will put your child to sleep) will talk to you and your child (if appropriate) about the anaesthetic.

What are the risks?

The risks of surgery will be discussed with you in detail by the surgeon, before your child's surgery.

The general risks include:

- infection
- bleeding
- needing another operation
- leakage of cerebrospinal fluid (brain and spinal fluid or CSF)
- temporary or permanent problems with limb function (paralysis), bladder or bowel function (this will depend on the area of surgery).

What are the benefits?

The surgeon will discuss the specific benefits of the surgery with you before the procedure. The main benefit will be removing/reducing the tumour, taking a biopsy (sample of tissue/tumour) for diagnosis, or the prevention of further damaging symptoms.

Anaesthetic risks

In modern anaesthesia, serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have made general anaesthesia a much safer procedure in recent years. Throughout the whole of life, a person is at least 100 times more likely to suffer serious injury or death in a road traffic accident than as a result of anaesthesia¹.

Most children recover quickly and are soon back to normal. Some children may suffer side effects like sickness or a sore throat.

These usually only last a short time and there are medicines available to treat them if necessary.

The exact likelihood of complications depends on your child's medical condition and on the nature of the surgery and anaesthesia your child needs. The anaesthetist can talk to you about this in detail before the surgery.

Consent

We will ask you for your written consent (agreement) for the operation to go ahead. If there is anything you are unsure about, or if you have any questions, please ask the doctor before signing the consent form.

Fasting instructions

If your child is coming into hospital to have this procedure as a planned operation (not as an emergency procedure), please make sure that you follow the fasting (starving) instructions. These should be included with your appointment letter or would have been given at the pre-operative assessment appointment.

If this surgery is an emergency, the nurses on the ward will give you fasting instructions.

Fasting is very important before an operation. If your child has anything in their stomach whilst they are under anaesthetic, it might come back up while they are unconscious and get into their lungs.

Pregnancy statement

All girls aged 12 years and over will need to have a pregnancy test before their operation or procedure. This is in line with our hospital policy.

We need to make sure it is safe to proceed with the operation or procedure, because many treatments including anaesthetic, radiology (X-rays), surgery and some medicines carry a risk to an unborn child.

The pregnancy test is a simple urine test and the results will be available immediately. If the result is positive, we will discuss this and work out a plan to support your child.

What happens before the operation?

Your child may already be an inpatient on the ward before their surgery, after being admitted as an emergency. If they are not, you will be asked to bring them in to hospital at 7.30am. They need to come to Children's Theatre Direct Admissions (TDA). This is based on Robin's Ward at the Children's Hospital in Oxford.

When you arrive, you and your child will be greeted by a nurse or healthcare assistant and will be shown to the waiting area. The nurse will check your child's paperwork and put some name-bands around their wrists or ankles. They will also measure your child's temperature, heart rate and breathing rate.

Your child will then be seen before their surgery by the neurosurgical team. The doctors will also take your child's medical history and samples of blood. This is to make sure the right type of blood is available during the surgery, if it is needed. The blood test will also be sent to check their electrolyte levels (biochemistry) and for any signs of infection.

A nurse or healthcare assistant will look after you and your child until your child is in theatre. There are also play specialists available to help your child prepare for the operation and to keep them distracted with play activities both before and after the operation. They will also help with preparing them for their anaesthetic. There are toys and gaming devices available for all ages.

The nurse and healthcare assistant will make sure you understand the routine of the day and your child's care before the operation. They can answer any questions you both may have.

If your child is unwell and this procedure needs to be done as an emergency your child will already be an inpatient (so will not need to be taken to TDA). They will still need to have blood samples taken before the surgery.

In the anaesthetic room

A nurse or play specialist and one parent or carer can come with your child to the anaesthetic room. Your child can also take a toy or comforter.

It may be possible to give the anaesthetic with your child sitting on your lap. Your child may either have anaesthetic gas to breathe, or an injection through a cannula (a thin plastic tube that is placed under the skin, usually on the back of the hand). Local anaesthetic cream (EMLA or Ametop, sometimes known as 'magic cream'), can be put on their hand or arm before injections so they do not hurt as much. It works well for 9 out of 10 children.

If the anaesthetic is given by gas, it will take a little while for your child to be anaesthetised. They may become restless as the gases take effect. If an injection is used, your child will normally become unconscious very quickly indeed. Some parents may find this upsetting.

When your child is asleep you will be asked to leave quickly so that the medical staff can concentrate on looking after them. The nurse will take you back to the ward to wait for your child.

Your child will then be taken into the operating theatre to have the operation. The anaesthetist will be with them at all times.

What happens during the operation?

The surgeon will make an incision (cut) through the skin on your child's back, to be able to get to their spine. The surgeon will talk with you before the operation about how long and where the incision will be.

The next step will depend on why your child is having surgery; it may involve a spinal tumour being removed or the spinal cord being set free from the spinal canal.

When the operation is over, the incision will be stitched closed with dissolvable stitches and covered with a dressing.

After the operation

After the operation your child will be taken to the recovery room while they come round from the anaesthetic. You will then be collected to go with the nurse to the recovery room where you will be able to see them.

A recovery nurse will look after your child until they are ready to come back to the ward. The nurses will make regular checks of your child's pulse, blood pressure, temperature and wound. They will also make sure your child has adequate pain relief. The nurse will then bring you and your child back to the ward.

The nurse will need to look in your child's eyes with a small torch, to check that they are reacting as they should. They will also ask them a couple of questions (if they are old enough/able to answer) to check their level of consciousness.

Some children remain sleepy for a little while after their operation, while other children wake up quickly. If your child is still sleeping, it is important for the nurse to wake them up, to check that they can be easily woken.

The nurse will also need to assess how much movement and sensation your child has in their limbs. Once your child begins to recover, the frequency of these checks can be reduced. We will also regularly inspect your child's wound, to check for leaking or bleeding.

Recovery from the anaesthetic

When your child is awake from the anaesthetic they can start drinking and, if they are not sick, they can begin to eat a light diet. Often, children are given fluids through their cannula until they are able to tolerate their normal diet again.

Occasionally, the anaesthetic may leave your child feeling sick for the first 24 hours and they may vomit. The best treatment for this is rest and small, frequent amounts of fluid, toast or biscuits. We can also give medication to help with this, but it should settle with time.

Pain assessment and pain relief

Your child's named nurse will use a pain assessment tool to help assess your child's pain score after their operation. This is a chart which helps us to gauge how much pain your child may be feeling.

You and your child will be introduced to this assessment tool either at their pre-assessment visit or on the ward before their operation. You can continue to use this assessment at home to help manage your child's pain if you wish.

Your child may have a special infusion pump attached directly to a vein in their arm to give them pain relieving drugs. This is called a Patient Controlled Analgesia pump (PCA). Your child's nurse (or your child, if they are old enough) can press a hand-held button when they feel pain or discomfort and the pump will deliver a pre-programmed dose of painkilling drugs directly into their vein. The machine controls the amount of drugs they receive, so they cannot have too much in one go.

During the operation your child will have had a narrow tube inserted into their bladder, called a catheter. This is because a side effect of the painkiller morphine (usually used with the PCA) is not being able to pass urine, which can be uncomfortable. We can also use this to monitor the amount of urine your child is passing. The catheter will remain in place until the morphine is stopped.

Your child will have the PCA for 24-48 hours after the operation. This will be used to keep them comfortable, along with medicines that they will be given by mouth, such as paracetamol (either as liquid or tablets).

After the PCA has been stopped your child will be given regular pain relief by mouth to help keep them comfortable. If your child feels sick, or is too sleepy to swallow their medicines, they can be given through their cannula.

Your child may also have a lumbar drain to remove any extra CSF and help the wound to heal. Please ask for our EVD leaflet.

Recovery on the ward

The nurse will continue to carry out regular observations of your child after their operation. This allows them to make sure that your child is recovering well. The nurse will need to carry these checks out throughout the night, as well as during the day, but this frequency will decrease as your child recovers.

The surgeons will give specific instructions about how much your child can move about after the operation, but it is likely that they will need to stay in bed for 24-48 hours.

During this time, your child will be encouraged to turn side to side. This can be uncomfortable, but will prevent their neck or back from becoming stiff and can help them recover. If your child finds it difficult to move, the nurse will help to reposition them every 2-4 hours.

When the surgeons say that your child can start to move around, the physiotherapists will be there to provide support and guidance.

The hospital experience is strange and unsettling for some children so do not be concerned if your child is more clingy, easily upset, or has disturbed sleep. Just be patient and understanding.

It is likely your child will be ready to go home between 5-10 days after the operation. When your child is transferred back to the ward you will be able to stay overnight with them on the parent beds provided.

Discharge advice – leaving hospital

Wound care and hygiene

The wound on your child's back is likely to have a dressing over it to keep it clean. This will be removed before they leave hospital.

Your child should not have a long bath or shower (over 5 minutes) for 6 weeks after the operation, as this will cause the dissolvable stitches to dissolve too quickly, which may result in the wound opening or not healing well.

The stitches used to close the wound will gradually dissolve; this usually takes 7-14 days, but can take up to 6 weeks.

Occasionally non-dissolvable stitches will need to be used. The surgeon will discuss this with you before the surgery, if they think they will need to be used.

Your child should be discouraged from scratching the wound, as this could cause an infection. If the wound becomes red, inflamed or painful, please call the ward or nurse specialist on the numbers given at the back of this leaflet.

The skin around the scar may feel numb. This is normal and will improve with time.

Please make sure you have enough children's paracetamol and ibuprofen at home, ready for when your child comes home from hospital.

Follow-up care

Your child may have occasional headaches or back pain from their wounds. You can give them children's paracetamol, but not more than once every 4-6 hours.

You can also give them children's ibuprofen every 6-8 hours, but only give a maximum of 4 doses in a 24 hour period. Please make sure you follow the correct dosage instructions for your child's age.

Your child's doctor will tell you when they need a follow-up appointment. The letter confirming this will come by post within 2 weeks. Please contact the hospital switchboard and ask to speak to your child's consultant's secretary if this does not arrive after this time.

Your child's follow-up appointment will be in Children's Outpatients approximately 6 weeks after they leave hospital.

Getting back to normal

When your child returns to school depends on how they feel when they return home. Most children who have spinal surgery return to school 2-3 weeks after they have come out of hospital. Some children go back to school part-time to start with. This can be discussed with your child's teacher.

Your child may feel tired for several weeks after the operation, but this is normal. Gradually increase the amount your child does until they are back to their usual level of activity.

Your child may be able to return to sporting activities such as PE, bike riding, swimming, etc. after 6 weeks, depending on their recovery.

Your child can go away on holiday (including flying) when they feel well enough and have had their follow-up appointment. Please make sure that your insurance company is aware that your child has had spinal surgery.

Signs to look out for

Please watch out for the following symptoms when you return home with your child:

- drowsiness
- limb weakness
- confusion
- increased headaches
- the wound site becoming painful, red, inflamed or producing pus
- any leaking of other fluid from the wound.

If your child has any of these symptoms you should contact the ward urgently (contact numbers are at the end of the leaflet).

How to help with your child's recovery

A healthy balanced diet is important for your child's recovery, as it gives them energy to recover and helps with wound healing.

Regular pain relief is important, as it helps reduce any discomfort. This will help your child to keep moving, which can speed up their recovery.

How to contact us

If you have any further questions, worries or queries about your child once you get home, please contact us. We are available 24 hours a day, 7 days a week.

Robin's Ward

Tel: **01865 231 254/5**

Melanie's Ward

Tel: **01865 234 054/5**

Neurosurgical Nurse Specialist

Tel: **01865 226 535**

To contact your child's consultant's secretary, please phone the John Radcliffe Hospital Switchboard:

Tel: **0300 304 7777**

If your child requires urgent treatment, please call 999 or go to your nearest Emergency Department.

How can I give feedback about my experience?

We would like to hear about your experience with our Childrens Services. There are different ways to feedback to us:

Online: **www.ouh.nhs.uk/childrens-feedback**

Email: **childrens.patientexperience@ouh.nhs.uk**

Or ask for a paper survey to fill in.

References

¹From the Royal College of Anaesthetists (2014) Fourth Edition Your child's general anaesthetic. Information for parents and guardians of children.

Website: www.rcoa.ac.uk/patientinfo

*We hope that this information is useful to you
and would welcome any comments about
the care or information you have received.*

*Please bring this leaflet with you on the day
of your child's operation.*

If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.

Making a difference across our hospitals

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OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

**Oxford
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