

## Pain Team: Information for Parents and Carers Epidurals For Pain Relief After Surgery

### What is an epidural?

Epidurals provide continuous pain relieving medicine to your child. The medicine is given through a fine plastic tube inserted in the back, close to the spinal cord. This blocks the pain messages from the surgical site travelling along the pain nerves to the brain. We have used epidurals safely and effectively for many years.

### What are the benefits of having an epidural?

- Epidurals provide excellent pain relief, particularly when moving.
- They are beneficial for operations that are expected to be painful or if your child cannot take medicines by mouth straight away.
- They can cause less nausea and vomiting a morphine infusion.
- May help reduce bleeding during surgery, so may reduce the likelihood of blood transfusion being needed.
- The medicine is pumped 24 hours a day, so is effective even when your child is sleeping.

### What are the alternatives?

If an epidural cannot be placed, or you choose not to have one, your child will likely need to have an infusion of morphine controlled by either the nurse or your child. Sometimes you may be offered a local anaesthetic block as an alternative. Your anaesthetists can discuss the alternatives with you. You may also read about these in our leaflet 'Pain management options after your child's surgery.'

### How is it inserted?

A plastic tube is inserted in theatre through a special epidural needle whilst your child is asleep. Once the plastic tube is inserted, the needle is removed. The tube is secured with a sticky clear plastic dressing and stays in place for several days until no longer needed.

### How do the nurses look after my child on the ward?

- Patients with epidurals are closely monitored by the nurses and seen by the pain team daily.
- The nurses will check your child's pain level, pulse, blood pressure and see how well the legs move every hour.
- The epidural is usually kept for up to three days if it is working well

### How is the epidural removed?

Before the epidural is stopped we ensure your child can take other pain relieving medicines to stay comfortable.

Removing the epidural is simple and painless. The worst bit is taking off the dressing because it is stuck to the skin. Once the dressing is removed the epidural tube slides out easily.

### Can anyone have an epidural?

Epidurals are not suitable for everyone, certain medical conditions or medication may mean that the risks outweigh the benefits. Conditions that may exclude an epidural include:

- Blood clotting problems.
- Allergic reactions to local anaesthetic.
- Broken or infected skin on back.
- Patients taking some blood thinning medication, like warfarin.



- Immunocompromised patients, due to illness or medication.
- Children with a major infection

### What are the risks of side effects or complications with an epidural?

**Side effects** are secondary effects from treatment, eg feeling sick or itchy. Some are common and often unavoidable, although not usually dangerous.

**Complications** are unwanted and unexpected events that are known to occur occasionally with a particular treatment. Serious complications are rare or very rare.

Some risks are more common but not serious (between 1 in 10 and 1 in 100 patients)<sup>1</sup>.

Other risks are more serious but much less common (between 1 in 10,000 and 1 in 100,000)<sup>1</sup>.

People vary in how they interpret words and numbers. This scale may help:

Very Common	Common	Uncommon	Rare	Very rare
1 in 10	1 in 100	1 in 1000	1 in 10,000	1 in 100,000

To give you an idea what these numbers mean, the risk of death from a road traffic accident is around 2.9 per 100,000 people in the UK each year<sup>2</sup>.

We do about 300 epidurals a year. This means the frequency we see side effects is around:

Very Common	Common	Uncommon	Rare	Very rare
1 per 1-2 weeks	1 per 4 months	1 every 3-4 years	1 every 30 years	1 every 300 years

### Common and Very Common Side Effects

- Feeling itchy, feeling sick or vomiting.
- Difficulty having a wee (passing urine).  
Your child may come back to the ward with a urine catheter (a plastic tube to their bladder).
- Legs may feel heavy or tingly.  
Usually turning the epidural down helps this improve
- The epidural medicine can sometimes leak a little from the plastic tube.  
If your child is comfortable this leakage is not a problem.
- Failure of the epidural to work or the pain relief is not fully effective  
We can change the medicine given through the epidural and/or add a different medicine given a different way e.g. by mouth, through a drip.

### Uncommon Side Effects

- Skin infection where the epidural is inserted or infection of the epidural catheter
- One of the epidural medicines can cause excessive sleepiness or breathing problems
- Headache  
Occasionally a severe headache (an epidural headache) can occur. This is due to a small hole from an accidental puncture ('dural tap'), making fluid in the spinal space leak out.  
The headache is usually worse when you sit up as it caused by low pressure in the brain.

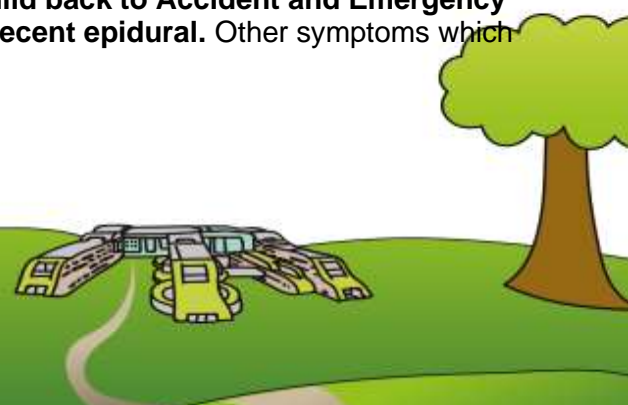
### Rare and Very Rare Complications

- Rare but serious complications include infection and bleeding in the back or nerve damage
  - A national survey of children<sup>3</sup> showed these problems happen in 1 in 2,500 epidurals (UK)
    - The effects of these complications lasting more than 1 year is rare, 1 in 10,000<sup>3</sup>
- Permanent nerve damage is rare, estimated as 1 in 20,000 to 1 in 50,000 epidurals.<sup>4</sup>
- The risk of paralysis or death is 1 in 55,000 to 1 in 140,000 epidurals.<sup>4</sup>

### What should I do after we go home?

After 24 hours any dressing over the epidural site can be removed. **If there are signs of redness, swelling or discharge from the epidural site, bring your child back to Accident and Emergency Department and tell the doctor that your child has had a recent epidural.** Other symptoms which may be important are:

- New/ worsening back pain
- High temperature/ neck stiffness
- Numbness/weakness or change in feeling in legs
- Difficulty having a wee or controlling bowels



- New/different headache which gets worse when your child sits or stands.

Further information about your child's anaesthetic and pain management can be found in the **Painbusters** booklet which you can read with your child or watch on YouTube. Find it on the Alder Hey website:

<https://www.youtube.com/watch?v=jV3G7voqOho>

### References

1. Royal College of Anaesthetists. Epidural Pain Relief After Surgery. Fourth Edition 2014. [www.rcoa.ac.uk/patientinfo](http://www.rcoa.ac.uk/patientinfo)
2. WHO, ed. (2015). "WHO Report 2015: Data tables" (official report). Geneva, Switzerland: World Health Organisation
3. Llewellyn N, Moriarty A. The national paediatric epidural audit. Paediatric Anaesthesia (2007) 17(6):p520-33
4. Royal College of Anaesthetists. Nerve damage associated with a spinal or epidural injection. Third edition 2013. Section 12 from: Risks associated with having an anaesthetic

