

Pain Relief After Surgery

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What is pain relief after surgery?

After your procedure the healthcare team wants you to be as comfortable as possible. This document gives you information about the various forms of pain relief that you may be offered. Although none of them can be guaranteed to make you absolutely pain-free, they should help you to not be in a lot of pain after the procedure.

Before the procedure the healthcare team or your anaesthetist (doctor trained in anaesthesia) will be able to tell you which forms of pain relief are suggested for you.

Shared decision making and informed consent

Your healthcare team have suggested pain relief after surgery. However, it is your decision on the forms of pain relief to use. This document will give you information about the benefits and risks to help you make an informed decision.

Shared decision making happens when you decide on your treatment together with your healthcare team. Giving your 'informed consent' means choosing to go ahead with the procedure having understood the benefits, risks, alternatives and what will happen if you decide not to have it.

If you have any questions that this document does not answer, it is important to ask your healthcare team. Once they have answered all your questions and you feel ready to go ahead with the procedure, they will ask you to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point after signing the form.

What are the benefits?

Procedures cause pain. It is important that you let the healthcare team know if you are in pain so that they can give you pain relief. If you have good pain control after the procedure, you are less likely to have a heart attack (where part of the heart muscle dies), a chest infection and blood clots. You should also get up and about more quickly and may go home sooner. Putting up with a lot of pain may cause more harm than good.

Many painkillers can reduce your ability to drive safely. Always check with your doctor that you are safe to drive while using painkillers.

Simple painkillers

You can use these on their own or combined with other painkillers. After the procedure take simple painkillers such as paracetamol or anti-inflammatory painkillers such as ibuprofen. Although these painkillers may not completely treat your pain, if you take them regularly they reduce the amount of other painkillers you may need.

Some people cannot take simple painkillers for various reasons. It is important that you let your anaesthetist know before the procedure if you have had any problems with these types of painkillers before, or if you have a history of stomach ulcers, kidney damage, bleeding or asthma.

What complications can happen?

The risks with simple painkillers are small.

- Paracetamol is very safe in normal doses.
- Anti-inflammatory painkillers can sometimes cause stomach irritation. This can be more severe with ulcers or stomach bleeding (risk: 1 in 200 if taken for more than a few weeks).
- Anti-inflammatory painkillers can make asthma worse but most people with asthma are not affected.

Morphine and similar painkillers

For more severe pain you may be given morphine or similar painkillers such as fentanyl, tramadol, codeine or oxycodone.

These painkillers can be given by mouth once you are eating and drinking normally.

They can also be given by injection either under your skin (subcutaneous), into the muscle (intramuscular) or directly into a vein (intravenous). If they are given by injection under your skin, a small tube (similar to a drip) is sometimes left under your skin to avoid repeatedly inserting a needle.

Intravenous delivery (using a drip)

The most common intravenous delivery is a technique known as Patient-Controlled Analgesia or PCA. This involves connecting a pump, containing the painkillers, to a drip (small tube) in a vein. The pump has a button that you will be given to hold and when you press the button a small dose of painkillers will be given. The pump has several safety features so that you cannot overdose by accident. The painkillers tend to make you sleepy, so if you do have more than you need, you are likely to fall asleep and not press the button for a while.

It is important that you are the only person allowed to press the button. The healthcare team will, if possible, show you the pump before you have the procedure so that you can be confident in how to use it. If you think you may not be able to press the button (for example, if you have arthritis), let the healthcare team know as they may be able to provide a button that is easier to use.

Using PCA is simple. If you are in pain, or you think you may be in pain soon, press the button. If you are comfortable, do not press the button.

What complications can happen?

Although they are effective painkillers, morphine and similar painkillers do have side effects.

- Itching is common but not usually severe. Medication can be used to treat the itching and it always goes away.
- Constipation is common but responds well to normal laxatives or increased diet of fruit and vegetables.
- Feeling or being sick is more common after certain procedures than others. It can usually be treated. There is no benefit in stopping taking the painkillers that are giving you pain relief as pain itself can make you feel sick. It is usually better to take anti-sickness medication along with the painkillers.
- Respiratory depression, where your breathing slows down too much. Serious complications are rare. The healthcare team will monitor your oxygen levels and will give you oxygen if you need it.

- Confusion is common after procedures and morphine may contribute to this. This is more likely in older people. Any confusion caused by painkillers will not be permanent.

Local anaesthetic wound infusion

You may be given a local anaesthetic infusion to help control the pain in the area around your wound and to reduce the amount of other painkillers you need.

A balloon device delivers the anaesthetic through a catheter (tube) to your wound or to the nerves that supply the area of your wound. Your surgeon will place the catheter at the end of your procedure.

The infusion can stay in place for up to 2 days. You may go home with the infusion in place and come back to have it removed.

What complications can happen?

The risks with local anaesthetic infusions are small.

- The infusion not working properly. Most infusions work well. You should let the healthcare team know if you are in pain.
- The catheter moving out of place or leaking anaesthetic outside of your wound. If this happens, let the healthcare team know.
- Allergic reaction to local anaesthetics. This is unusual. Many people have been told, or think, they are allergic to local anaesthetic given at the dentist. This is rare but let the healthcare team know if you have reacted to sulphites or to any medications or tests in the past.
- Local anaesthetic toxicity, if the local anaesthetic is absorbed into your bloodstream too quickly. This usually makes only your lips tingle or your ears ring. You may feel light-headed. The dose of anaesthetic is always limited to reduce this risk.

The healthcare team will try to reduce the risk of these complications by checking that the catheter is secured in the correct place and that the anaesthetic is being delivered at a safe rate.

Epidural anaesthetic

You may be offered epidural pain relief after the procedure. An epidural involves inserting a fine catheter (tube) into the epidural space (an area near your spinal cord). Most of your nerves pass through this space. Local anaesthetics and other painkillers are injected down the catheter into the epidural space to numb your nerves.

An epidural will be given to you by an anaesthetist. Your anaesthetist is usually assisted by a specially trained healthcare practitioner.

An epidural has three main effects:

- Pain relief – The epidural numbs the sensory nerves responsible for pain and touch. This gives pain relief but can also make the area feel numb or heavy. Sensory nerves are more easily affected than movement nerves, so sometimes you can be numb but still able to move your legs.
- Weakness – The nerves supplying muscles may also be affected. This can make it difficult for you to move your legs. It may also make it difficult for you to pass urine properly.
- Low blood pressure – The nerves that help to control blood pressure are the most easily affected. You may not be aware of this happening but the healthcare team will be monitoring you closely for any problems with low blood pressure.

An epidural gives good pain relief but, like other forms of pain relief, cannot guarantee that you will be pain-free.

Sometimes the anaesthetic is injected continuously (an infusion). The dose can be varied by the healthcare team. As well as continuous infusion you can sometimes have a button that allows you to 'top up' the epidural by giving a small, safe dose when you need it. This system is designed to prevent too much being given.

The epidural will be removed and you will be given oral painkillers before you go home.

What complications can happen?

Your anaesthetist is trained to reduce the risk of complications. A serious complication happens in about 1 in every 10,000 epidurals. There is a risk of significant permanent harm from an epidural (overall risk: 1 in 5,750 to 1 in 12,200).

The possible complications of an epidural anaesthetic are listed below. Any risk rates given are taken from studies of people who have had an epidural anaesthetic.

Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

- Low blood pressure (risk: 1 in 30). This is easily treated.
- Difficulty passing urine because the nerves to your bladder are numbed. You may need a catheter (tube) in your bladder to help you pass urine.
- Headache, if the bag of fluid around your spinal cord leaks (risk: 1 in 100). This headache can vary from mild to severe and can be treated.
- Shivering after your procedure (risk: 4 in 10). This can feel uncomfortable, but usually stops within 30 minutes. People do not normally feel cold but if you do, let your healthcare team know.
- Respiratory depression, where your breathing slows down too much (risk: 1 in 400). The healthcare team will monitor your oxygen levels and will give you oxygen if you need it.
- Seizures caused by the local anaesthetics (risk: 1 in 10,000). These are usually temporary.
- Unexpected high block, if the local anaesthetic spreads beyond the intended area (risk: 1 in 18,000). This can make it difficult for you to breathe, cause you to have low blood pressure and, rarely, cause you to become unconscious. You may be moved to the intensive care unit or high dependency unit so the healthcare team can monitor you more closely.
- Allergic reaction to the equipment, materials or medication. The healthcare team are trained to detect and treat any reactions that may happen. Tell them if you have any known allergies or if you have reacted to any medication, tests or dressings in the past.

- Infection around your spine (abscess or meningitis), causing permanent damage (risk: 1 in 30,000).
- Cardiovascular collapse (where your heart stops) (risk: 1 in 100,000).
- Nerve damage (risk: 1 in 50,000). This is not usually serious and gets better. Sometimes the damage can be permanent (risk: 1 in 100,000).
- Blood clot around your spine (risk: 1 in 20,000).
- Damage to nerves supplying your bladder and bowel (risk: 1 in 30,000).
- Paralysis or death (risk: 1 in 16,400 to 1 in 100,000). This can be caused by infection, bleeding near your spinal cord or injury to your spinal cord.

Epidural anaesthetic and associated complications are explained more fully in the information document 'A02 Epidural Anaesthetic'.

If you have an epidural, do not drive, operate machinery or do any potentially dangerous activities (including cooking) until you have fully recovered feeling, movement and co-ordination.

Peripheral nerve blocks

You may be offered a peripheral nerve block to give pain relief after a procedure on your arm or leg. A nerve block works by temporarily numbing your nerves to give pain relief. This involves injecting local anaesthetics and other painkillers near the major nerves to your arm or leg. You may need more than one injection.

A nerve block will be given to you by an anaesthetist. Your anaesthetist is usually assisted by a specially trained healthcare practitioner.

The effect of the nerve block can be varied by changing the type and amount of anaesthetic given. A nerve block has two main effects:

- Pain relief – The nerve block numbs the sensory nerves responsible for pain and touch. This gives pain relief but can also make your arm or leg feel numb and heavy.
- Weakness – The nerves supplying muscles may also be affected. This can make it difficult for you to move your arm or leg.

Your anaesthetist will tell you how long to expect your arm or leg to feel numb and heavy. A nerve block can last up to 24 hours. While your arm or leg is numb you need to be careful to avoid hot or sharp objects.

A peripheral nerve block gives good pain relief but, like other forms of pain relief, cannot guarantee that you will be pain-free.

What complications can happen?

- The nerve block not working properly. Most nerve blocks work well first time. If not, your anaesthetist may repeat the injection or discuss with you other options for pain relief.
- Allergic reaction to local anaesthetics. This is unusual. Many people have been told, or think, they are allergic to local anaesthetic given at the dentist. This is rare but let your anaesthetist know if you have reacted to sulphites or to any medications or tests in the past.
- Bleeding, if the needle used to inject the local anaesthetic strikes a blood vessel. This usually results in a small bruise that will not cause problems.
- Nerve damage. This is usually temporary, with symptoms of numbness, 'pins and needles' or weakness lasting up to 12 weeks (risk: 1 in 100 to 1 in 300). Sometimes the damage can last longer than 6 months (risk: less than 1 in 1,000) or be permanent (risk: 1 in 10,000).
- Local anaesthetic toxicity, if the local anaesthetic is accidentally injected into your bloodstream or if it is absorbed into your bloodstream too quickly. This usually makes only your lips tingle or your ears ring. You may feel light-headed and have a seizure (risk: less than 1 in 500). The dose of anaesthetic is always limited to reduce this risk.

Peripheral nerve blocks and associated complications are explained more fully in the information documents 'A12 Peripheral Nerve Block (Lower Limb)' and 'A13 Peripheral Nerve Block (Upper Limb)'.

Summary

Pain after a procedure is common but you do not need to be in a lot of pain. Pain relief after surgery is usually safe and effective but complications can happen. Being aware of them will help you make an informed decision about surgery. This will also help you and the healthcare team to notice and treat any problems after your procedure as quickly as possible.

Keep this information document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatment options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

Reviewer

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