مستشفى كينغز كوليدج لندن
King's College Hospital London

Patient Information for Consent

You and your Anaesthetic

What is a general anaesthetic?

A general anaesthetic is a combination of drugs that produce deep sleep. It is used for operations or procedures as it causes a loss of sensation. You will not be aware of what is happening and afterwards you will not remember anything that has happened. The general anaesthetic will be given to you by an anaesthetist (doctor trained in anaesthesia). Your anaesthetist is usually assisted by a specially- trained healthcare practitioner.

A general anaesthetic has been recommended for you. However, it is your decision to go ahead with a general anaesthetic or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your anaesthetist or the healthcare team.

What are the benefits of a general anaesthetic?

You need to have an operation or procedure. So that your surgeon or doctor can perform the operation safely, you need to be in a state where you do not move and your muscles are relaxed. A safe way to achieve this is to give you a general anaesthetic.

Are there any alternatives to a general anaesthetic?

Depending on you and the type of operation, your anaesthetist may consider other forms of anaesthesia. However, certain operations can be performed only under a general anaesthetic. Other forms of anaesthesia include injections near the area of surgery (local anaesthetic) or injections of local anaesthetic near major nerves or your spinal cord (regional, epidural or spinal anaesthetic). Local anaesthetics will numb the area to be operated on but you will be awake or under sedation for the operation.

What happens before a general anaesthetic?

Do not eat in the 6 hours before the operation. You may drink small sips of water up to 2 hours before. If you have diabetes, let the healthcare team know as soon as possible. You will need special advice depending on the treatment you receive for your diabetes.

Before you are given the anaesthetic, the healthcare team will attach some monitors to you that measure your blood pressure and the amount of oxygen in your blood. If you need oxygen, they will give it to you through a mask or small tube under your nostrils.

Your anaesthetist and the healthcare team will carry out some final checks with you and each other. Even though you may have been asked some of the questions before, it is important to answer carefully as the checks are carried out for your own safety.

How is a general anaesthetic given?

Most people are sent to sleep by injecting the anaesthetic through a drip (small tube) in a vein. It takes about 30 seconds to work. The injection can ache a bit at the time but any discomfort will usually be gone when you wake up.

For some people it may be more appropriate to go to sleep by breathing an anaesthetic gas through a face mask. This also takes about 30 seconds to work.

You will be kept asleep either by giving you more of the same anaesthetic into the vein or by breathing anaesthetic gases. Your anaesthetist may also give you medication to reduce pain and sickness after the operation. Your anaesthetist will monitor you closely. When the operation has finished, the anaesthetic

wears off, allowing you to wake up again.

Is a general anaesthetic safe?

A general anaesthetic is safe for most people. Death after an operation is almost always because a person's body cannot cope with the surgery. The risk is higher if you have ill health and for emergency surgery.

Your anaesthetist may need to do some tests before the operation to assess how safe a general anaesthetic is for you. The tests will allow the healthcare team to decide if there is anything they might need to do differently. The tests will vary and may include the following.

- Blood tests to check for anaemia (your body not producing enough healthy red blood cells), the balance of salts in your blood, the level of sugar in your blood or how well your blood clots.
- ECG (electrocardiogram) to record the electric activity of your heart. An ECG may show the cause of an irregular pulse or evidence of a previous heart attack (where part of the heart muscle dies).
- Lung-function tests may be appropriate if you have asthma, bronchitis, emphysema or unexplained shortness of breath.

Sometimes, after examining you or because of the results of your investigations, your anaesthetist may recommend that you go to your GP or another specialist to improve your medical condition before surgery. This happens most with people who have high blood pressure, angina, asthma, diabetes or anaemia that is not well controlled.

How will my anaesthetist know that I am really asleep?

There is not a monitor available that can reliably say that someone is asleep. 1 in 20,000 people report being aware of what is happening during a general anaesthetic when they should be asleep. Your anaesthetist continuously monitors the amount of anaesthetic in your body to reduce this risk.

What complications can happen?

Your anaesthetist will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had a general anaesthetic. Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

Some complications can be serious and can even cause death (risk of anaesthesia contributing to death: 1 in 60,000, risk of death: 1 in 100,000). You should ask your anaesthetist if there is anything you do not understand.

Minor complications (not disabling or life-threatening)

- Feeling or being sick after the operation (risk: 1 in 4). The risk is higher with certain people and certain operations but can be reduced with medication given by either your anaesthetist at the time of the anaesthetic or the ward doctor after the operation. If you think you may be prone to being sick, let your anaesthetist know.
- Sore throat (risk: 1 in 6). This gets better quickly.
- Headache (risk: 1 in 20). This is not usually severe and settles with time. Simple painkillers such as paracetamol may help.
- Muscle and back pains caused by the medication used or being in one position during the operation (risk: 1 in 20). If you know that certain positions are likely to cause problems, let your anaesthetist know.
- Dental damage affecting your front teeth or crowns (risk: less than 1 in 100). Your anaesthetist will always ask to look inside your mouth. Let your anaesthetist know if you have any loose teeth, crowns or bridgework.

- **Difficulty passing urine.** You may need a catheter (tube) in your bladder for 1 to 2 days.

Overall about 4 in 10 people report some problem after a general anaesthetic.

Serious complications

- **Loss or change of hearing** (risk: 1 in 10,000). For most people this gets better.
- **Eye injury** (risk of short-term blurred vision: 1 in 20, risk of serious damage needing further treatment: 1 in 1,000, risk of loss of sight: 1 in 125,000). The risk is higher for some operations. Your anaesthetist will discuss this with you.
- **Nerve injury** (risk: 1 in 1,000). The nerve that usually gets damaged is the ulnar nerve that runs just behind your elbow. Any damage is usually mild and gets better but the damage may be permanent.
- **Heart attack.** This is unusual if you were fit before the operation. A heart attack is more common, but still unusual, in people with heart disease, diabetes or high blood pressure.
- **Stroke (loss of brain function resulting from an interruption of the blood supply to your brain).** This is unusual if you were fit before the operation. A stroke is more common, but still unusual, in people with heart disease, diabetes, high blood pressure or a history of strokes.
- **Chest infection and other breathing problems.** You may get a minor breathing problem that settles (risk: 1 in 20). A chest infection is less common. The risk is higher if you smoke, have a chest or lung disease or are having a chest or abdominal operation.
- **Allergic reaction to the medication used in the anaesthetic.** Your anaesthetist is trained to detect and treat any reactions that might happen but an allergic reaction can be life-threatening (risk: 1 in 10,000).

How soon will I recover?

A general anaesthetic can affect your judgement and reactions for 24 hours. Do not drive, operate machinery (this includes cooking), do any potentially dangerous activities, sign legal documents or drink alcohol during this time.

If you go home the same day, a responsible adult should take you home in a car or taxi and stay with you for at least 24 hours. Be near a telephone in case of an emergency.

If you are fit and maintain a healthy weight, you are more likely to do well after having a general anaesthetic.

Summary

A general anaesthetic is usually a safe and effective way for you to have an operation or procedure.

Most people do not have any problems and are satisfied with their anaesthetic. However, complications can happen. You need to know about them to help you to make an informed decision about the anaesthetic. Knowing about them will also help to detect and treat any problems early.

What is a spinal anaesthetic?

A spinal anaesthetic (or spinal) involves injecting local anaesthetics and other painkillers into the subarachnoid space (an area near your spinal cord). This numbs your nerves to give pain relief in certain areas of your body. A spinal can be used either on its own while you are awake, or together with sedation or a general anaesthetic. A spinal can also be used after an operation or procedure to give effective pain relief.

The spinal will be given to you by an anaesthetist (doctor trained in anaesthesia). Your anaesthetist is usually assisted by a specially-trained healthcare practitioner.

A spinal has been recommended for you. However, it is your decision to go ahead with a spinal or not. This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your anaesthetist or the healthcare team.

How does a spinal work?

A spinal works by temporarily numbing your nerves to give pain relief. The subarachnoid space is the bag of fluid that surrounds your spinal cord and the nerves that come out from it. Local anaesthetics and other painkillers are injected using a fine needle into this space. The needle is removed and nothing is left in your back.

What will happen if I decide not to have a spinal?

There may be clinical reasons not to use a spinal, such as having an allergy to the type of anaesthetic or materials used, or an infection at the site where the needle will be inserted.
If you decide not to have a spinal, your anaesthetist may be able to suggest other methods of pain relief such as using a general anaesthetic alone, or other types of painkiller such as morphine.

What happens before a spinal?

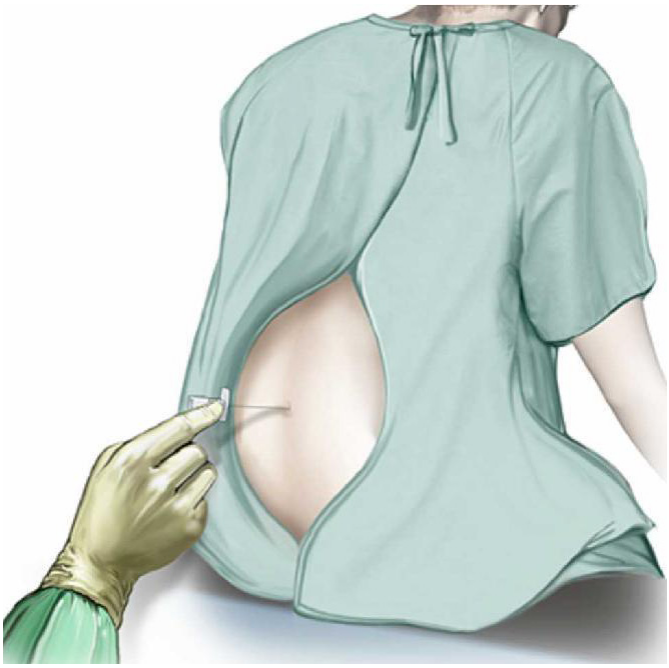
Do not eat in the 6 hours before the spinal. You may drink small sips of water up to 2 hours before.
If you have diabetes, let the healthcare team know as soon as possible. You will need special advice depending on the treatment you receive for your diabetes.

Before you are given the spinal, the healthcare team will attach some monitors to you that measure your blood pressure and the amount of oxygen in your blood. If you need oxygen, they will give it to you through a mask or small tube under your nostrils.

Your anaesthetist and the healthcare team will carry out some final checks with you and each other. Even though you may have been asked some of the questions before, it is important to answer carefully as the checks are carried out for your own safety.

How is a spinal given?

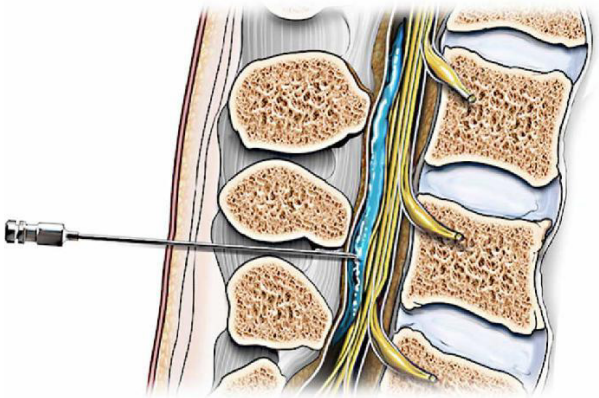
To insert the needle, your anaesthetist will ask you to either sit up or lie on your side. You will need to curl up and arch your back as much as possible as this makes it easier for your anaesthetist to find the right position.



A spinal being given

Your anaesthetist will inject local anaesthetic into the area where they will insert the needle. This stings for a moment but will make the area numb, allowing your anaesthetist to insert the needle with much less discomfort for you.

Your anaesthetist will insert the needle and when they are certain that it is in the right position they will inject anaesthetic through it. They will remove the needle.



A spinal needle in the subarachnoid space

You can help your anaesthetist by keeping still while they insert the needle. It should not be painful, although it can be uncomfortable. If you feel pain, let your anaesthetist know.

As the spinal starts to work, you may feel a warm sensation or tingling in the area being numbed.

What effect does a spinal have?

The effect of the spinal can be varied by changing the type and amount of medication given. A spinal has three main effects.

- **Pain relief** – The spinal numbs the sensory nerves responsible for pain and touch. This gives pain relief but can also make the area feel numb or heavy. Pain nerves are easier to block than touch nerves so although you may be able to feel someone touching or pulling you, it should not hurt. 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 your anaesthetist will be monitoring you closely for any problems with low blood pressure.

If you are having an operation using only a spinal, the operation will not start until your anaesthetist is satisfied that the spinal is working well.

The time that the spinal lasts for varies but is usually 1 to 3 hours. Your anaesthetist will put enough anaesthetic through the needle to make sure that it lasts longer than the expected length of the operation.

Sometimes surgery takes much longer than expected and the spinal starts to wear off. Your anaesthetist will discuss other forms of pain relief with you.

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

What complications can happen?

Your anaesthetist will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had an epidural. Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

A serious complication happens in about 1 in every 50,000 spinals. There is a risk of significant permanent harm from a spinal (overall risk: 1 in 38,000 to 1 in 62,000).

You should ask your anaesthetist if there is anything you do not understand.

- **Failure of the spinal.** Most spinals work well first time but sometimes they do not. Your anaesthetist may repeat the injection or discuss with you other options such as a general anaesthetic.
- **Low blood pressure.** The risk depends on your medical condition, the type of medication used and the surgery being performed. It is easily treated and you will be closely monitored by your anaesthetist. Sometimes the first sign of a fall in blood pressure is feeling sick or light-headed. It

is important that you let your anaesthetist know straightaway if this happens.

- **Headache** is common after an operation.There is a particular type of headache that can happen 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.
- **Itching,** if morphine or similar painkillers are given. The effect is usually mild, although it can sometimes be more severe. Medication can be used to treat the itching and it always goes away.
- **Difficulty passing urine because the nerves to your bladder are numbed.** You will usually have a catheter (tube) in your bladder to help you to pass urine.
- **Backache** is common after an operation. It is common to have a bruised feeling for a few days where the spinal was inserted. There is no evidence that having a straightforward spinal causes long-term backache.
- **Loss or change of hearing.** For most people this is mild and gets better. The risk is higher in young people.
- **Cardiovascular collapse** (whereyourheart stops) (risk: 1 in 100,000).
- **Unexpected high block**, if the local anaesthetic spreads beyond the intended area (risk: 1 in 5,000). 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 transferred to the intensive care unit or high dependency unit so the healthcare team can monitor you more closely.
- **Infection around your spine** (abscesso meningitis), causing permanent damage (risk: 1 in 100,000).
- **Nerve damage** (risk: less than 1 in 24,000).This is not usually serious and gets better. Sometimes the damage can be permanent (risk: 1 in 100,000).

î Various other more serious problems have been reported with spinals, including spinal abscess (risk: 1 in 100,000) and blood clots (haematoma) (risk: 1 in 200,000).

- **Paralysis or death** (risk: 1 in 50,000 to 1 in 140,000). This can be caused by infection, bleeding near your spinal cord or injury to your spinal cord.

A complication may happen after you have had a spinal. If you have any of the following problems, you or your doctor should contact the hospital straight away.

î Pus, redness, tenderness or pain where the spinal was inserted.
î A high temperature.
î Feeling unwell, even after recovering from the operation itself.
î Discomfort when in a bright room or sunlight (photophobia).
î Neck stiffness.
î Difficulty moving or feeling your legs.
î Difficulty passing urine.
î Bowel incontinence.

How soon will I recover?

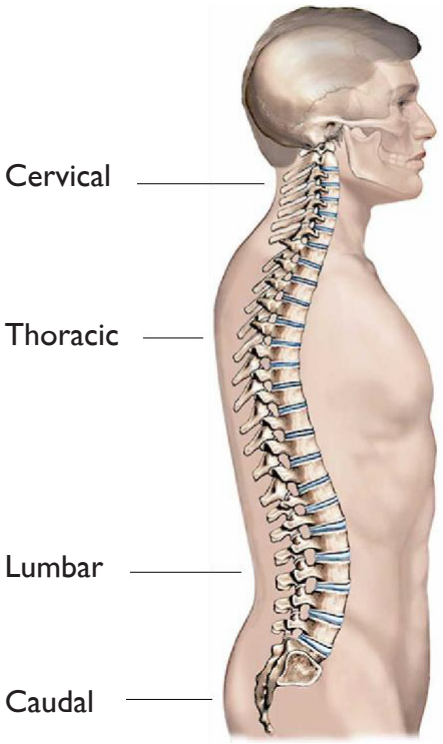
A spinal can affect your reactions. Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) until you have fully recovered feeling, movement and co-ordination. The effect of the spinal will wear off after a few hours. It is important to have another form of pain relief ready for when it wears off.

Summary

A spinal anaesthetic can be used for most people, usually giving a safe and effective form of pain relief both during and after an operation or procedure. However, complications can happen. You need to know about them to help you to make an informed decision about the anaesthetic. Knowing about them will also help to detect and treat any problems early.

What is an epidural anaesthetic?

An epidural anaesthetic (or epidural) involves injecting local anaesthetics and other painkillers into the epidural space (an area near your spinal cord). This numbs your nerves to give pain relief in certain areas of your body. An epidural can be used either on its own while you are awake, or together with sedation or a general anaesthetic. An epidural can also be used after an operation or procedure to give effective pain relief.



The epidural will be given to you by an anaesthetist (doctor trained in anaesthesia). Your anaesthetist is usually assisted by a specially-trained healthcare practitioner.
An epidural has been recommended for you. However, it is your decision to go ahead with an epidural or not.
This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your anaesthetist or the healthcare team.

How does an epidural work?

An epidural works by temporarily numbing your nerves to give pain relief. A fine catheter (tube) is inserted in the epidural space, 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.

The epidural can be maintained by giving extra doses or by giving a continuous low dose (an infusion). Your anaesthetist and the healthcare team will monitor you closely.

What will happen if I decide not to have an epidural?

There may be clinical reasons not to use an epidural, such as having an allergy to the type of anaesthetic or materials used, or an infection at the site where the epidural catheter will be inserted.

If you decide not to have an epidural, your anaesthetist may be able to suggest other methods of pain relief such as using a general anaesthetic alone, or other types of painkiller such as morphine.

What happens before an epidural?

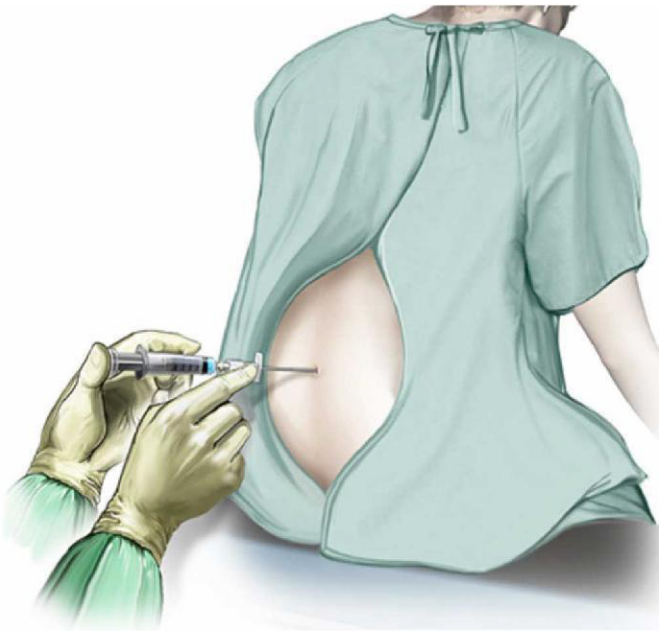
Do not eat in the 6 hours before the epidural. You may drink small sips of water up to 2 hours before. If you have diabetes, let the healthcare team know as soon as possible. You will need special advice depending on the treatment you receive for your diabetes.

Before you are given the epidural, the healthcare team will attach some monitors to you that measure your blood pressure and the amount of oxygen in your blood. If you need oxygen, they will give it to you through a mask or small tube under your nostrils.

Your anaesthetist and the healthcare team will carry out some final checks with you and each other. Even though you may have been asked some of the questions before, it is important to answer carefully as the checks are carried out for your own safety.

How is an epidural given?

To insert the epidural catheter, your anaesthetist will ask you to either sit up or lie on your side. You will need to curl up and arch your back as much as possible as this makes it easier for your anaesthetist to find the right position.



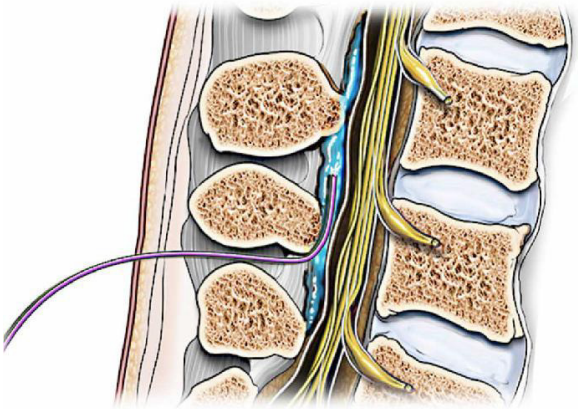
An epidural being given

Your anaesthetist will inject local anaesthetic into the area where they will insert the epidural catheter. This stings for a moment but will make the area numb, allowing your anaesthetist to insert the catheter with much less discomfort for you.

Your anaesthetist will insert the epidural catheter using a needle. They will pass the catheter through the needle. Once the catheter is in position, they will remove the needle and you will simply have the catheter in your back.

Your anaesthetist will inject a small amount of anaesthetic through the catheter to check the position. Once they have completed this check, they will give more of the anaesthetic until the epidural is working properly.

Sometimes when your anaesthetist is passing the catheter through the needle, you may get an electric shock-like feeling or a tingle in your back or in one of your legs. If this happens, let your anaesthetist know. The feeling should settle quickly. It does not mean anything is wrong.



A catheter in the epidural space

You can help your anaesthetist by keeping still while they insert the epidural catheter. It should not be painful, although it can be uncomfortable. If you feel pain, let your anaesthetist know.
As the epidural starts to work, you may feel a warm sensation or tingling in the area being numbed.

The epidural is sometimes left in place to help with controlling pain after the operation. A pump that gives a continuous low dose of painkillers will be attached to the epidural. You may also be given a button to press when you need extra doses (patient-controlled analgesia). The pump has several safety features so that you cannot overdose by accident.

What effect does an epidural have?

The effect of the epidural can be varied by changing the type and amount of medication given. The more anaesthetic you are given, the more numb you will be. 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. Pain nerves are easier to block than touch nerves so although you may be able to feel someone touching or pulling you, it should not hurt. 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 your anaesthetist will be monitoring you closely for any problems with low blood pressure.

If you are having an operation using only an epidural, the operation will not start until your anaesthetist is satisfied that the epidural is working well. If your epidural does not work well, it can usually be corrected.

If you are having an epidural as pain relief after the operation, the epidural will be kept in until you no longer need it. The infusion will be turned down and then stopped. The effects of the epidural will wear off over a few hours and the epidural will be removed. This is painless.
An epidural gives good pain relief but, like other forms of pain relief, cannot guarantee that you will be pain-free.

What complications can happen?

Your anaesthetist will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had an epidural. Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

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).

You should ask your anaesthetist if there is anything you do not understand.

- **Failure of the epidural** (risk: 1 in 20). About 9 in
î 10 epidurals work well first time. Of those that do not, about half are adjusted and then work well. If the epidural is still not working, your anaesthetist will discuss with you if you should have a general anaesthetic instead. The pain relief given by an epidural is usually still better than with other techniques.
- **Low blood pressure** (risk: 1 in 30). The risk depends on your medical condition, the site of the epidural and the surgery being performed. It is easily treated and you will be closely monitored during the operation by your anaesthetist and afterwards by the healthcare team on the ward. Sometimes the first sign of a fall in blood pressure is feeling sick or light-headed. It is important that you let the healthcare team know straightaway if this happens.
- **Headache** is common after an operation.There is a particular type of headache that can happen 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.
- **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.
- **Itching,** if morphine or similar painkillers are given (risk: 1 in 10). The effect is usually mild, although it can sometimes be more severe. Medication can be used to treat the itching or the type of painkiller can be changed. The itching always goes away.
- **Difficulty passing urine because the nerves to your bladder are numbed.** You will usually have a catheter (tube) in your bladder to help you to pass urine.

- Temporary leg weakness is common and can vary from being almost unnoticeable to not being able to move your legs at all. If leg weakness is causing a problem during the operation, the epidural can sometimes be adjusted to make your legs more mobile. You may need someone to stay with you and help you for a few hours after the epidural.
- **Backache** is common after an operation. It is common to have a bruised feeling for a few days where the epidural was inserted. There is no evidence that having a straightforward epidural causes long-term backache and epidurals are commonly used to treat people with long-term back pain.
- **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 transferred to the intensive care unit or high dependency unit so the healthcare team can monitor you more closely.
- **Infection** around your spine (abscessor meningitis), causing permanent damage (risk: 1 in 30,000).
- **Cardiovascular collapse** (where your heart stops) (risk: 1 in 100,000).
- **Nerve damage** (risk:1in50,000).Thisisnot 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.

If you have an epidural infusion, the healthcare team will monitor you closely to check for any problems.

Late complications

A complication may happen after the epidural has been removed. If you have any of the following problems, you or your doctor should contact the hospital straightaway.

- Pus,redness,tendernessorpainwherethe epidural was inserted.
- A high temperature.
- Feelingunwell,evenafterrecoveringfromthe operation itself.
- Discomfort when in a bright room or sunlight (photophobia).
- Neck stiffness.
- Difficulty moving or feeling your legs.
- Difficulty passing urine.
- Bowel incontinence.

How soon will I recover?

An epidural can affect your reactions. Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) until you have fully recovered feeling, movement and co-ordination.

Summary

An epidural anaesthetic can be used for most people, usually giving a safe and effective form of pain relief both during and after an operation or procedure. However, complications can happen. You need to know about them to help you to make an informed decision about the anaesthetic. Knowing about them will also help to detect and treat any problems early.

What is a local anaesthetic?

A local anaesthetic is a drug that is injected into the tissues to make them numb. It can be used to give effective pain relief during and after an operation or procedure. The local anaesthetic will be given to you either by your surgeon or anaesthetist (doctor trained in anaesthesia).

A local anaesthetic has been recommended for you. However, it is your decision to go ahead with a local anaesthetic or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your surgeon or anaesthetist, or the healthcare team.

How does a local anaesthetic work?

Local anaesthetics temporarily stop nerves working so that you do not feel pain. The simplest form of local anaesthesia is to inject the anaesthetic just around the area where the operation is going to take place. This tends to sting or burn for a few seconds and then the area goes numb. The feeling of pain goes away much sooner than the feeling of touch, so do not be alarmed if you can still feel pressure or movement.

It is possible to numb all the nerves to an arm or a leg (a nerve block).

The operation will not start until you and your surgeon are both satisfied that the area is numb to pain.

Although the starting area is numb, the operation may reach areas that have not been numbed. Your surgeon will give you some more local anaesthetic until those areas are numb to pain.

Local anaesthetics generally work for a few hours, depending on the type of anaesthetic and dose used. After this time the area should go back to normal.

Are there any alternatives to a local anaesthetic?

If you are concerned about being awake during the operation, it may be possible for it to be performed under a general anaesthetic. There are complications associated with a general anaesthetic.

Other forms of anaesthesia may be possible, such as an epidural or nerve block, although these also use local anaesthetics. Sometimes it may be possible to use a sedative as well as a local anaesthetic.

What can I do to help make the operation a success?

Keeping warm

It is important to keep warm around the time of the operation. Your anaesthetist will take steps to keep you warm when you are having the operation.

The hospital may be colder than your home, so bring extra clothing or a dressing gown. If you become too cold you may have a higher risk of developing complications such as an infection of the surgical site (wound) or heart problems. Let the healthcare team know if you feel cold.

Lifestyle changes

If you smoke, stopping smoking now may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

What complications can happen?

The healthcare team will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had a local anaesthetic. Your doctor

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

Some complications can be serious and can even cause death.

You should ask your surgeon or anaesthetist if there is anything you do not understand.

- Not enough pain relief is usually corrected by giving more local anaesthetic. Sometimes other types of painkillers or forms of anaesthesia need to be given as well. Let your surgeon or doctor know if you are in pain.
- **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 person giving you the local anaesthetic 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** (risk: 1 in 5,000). Sometimes the local anaesthetic has a longer effect than expected (up to 2 days) but this usually gets better.
- **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.

Summary

A local anaesthetic can be used for most people, usually giving a safe and effective form of pain relief during and after an operation or procedure. However, complications can happen. You need to know about them to help you to make an informed decision about the anaesthetic. Knowing about them will also help to detect and treat any problems early.

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

Fasting Instructions

Practice Guidelines for Preoperative Fasting of Adult Patients (age > 15 years)	
Ingested Material Period	**Minimum Fasting**
Clear liquids (examples include water, fruit juices without suspended particles, carbonated beverages, clear tea, and black coffee)	2 hours
Non-human milk, fruit juices with suspended particles, tea/coffee with milk, and other non-clear liquids	6 hours
Light snack (examples include dry toast, bread, crackers, or biscuits)	6 hours
Regular meal, fried, fatty, or oily food, and meat	8 hours

✓Examples of clear liquids: Water, clear fruit juice (apple juice, white grape, etc.), tea and black coffee without milk or creamer, carbonated beverages

× Examples of non-clear liquids: Fruit juice with pulp (orange juice, pineapple juice, etc.), milk, creamer, milk formulas, yogurt and other milk products

Moving Beyond "NPO at Midnight"

Healthy Patient of Any Age

(i.e., not diabetic, obese, pregnant, ileus/SBO, difficult airway)

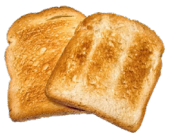
Undergoing Elective Procedure

(i.e., not emergent)

Healthy Patient of Any Age

(i.e., not merely local anesthesia)

Hours Pre-Op	Allowable Food or Beverage
>8	**Heavy foods** (fried/fatty) and meats
6	**Light meal** (e.g., toast + clear liquid) **Cow's milk** (in moderation) **Infant formula**
4	**Breast milk**
2	Non-alcoholic **clear liquids** (e.g., water, fruit juice without pulp, nutritional drinks, clear tea, black coffee)
0-2	**NPO**



Benefits of Clear Liquids up to 2 hours Pre-Op

✓LESS patient thirst and hunger
✓LOWER risk of aspiration