This leaflet explains what to expect when you have an operation with a regional anaesthetic and answers some common questions you may have.
Introduction
This leaflet explains what to expect when you have an operation with a regional anaesthetic.

Having a regional anaesthetic for your operation
This leaflet explains:
- What a regional anaesthetic is
- How it works, and
- Why you could benefit from having one for your operation

For many operations, patients receive a general anaesthetic which produces a state of controlled unconsciousness during the operation.

A regional anaesthetic may be used instead for some operations. Depending on the type of operation and your own medical condition, a regional anaesthetic may sometimes be safer for you and suit you better than a general anaesthetic.

You can normally choose:
- To remain fully conscious
- To have some sedation during your operation. This makes you relaxed and drowsy although you remain conscious
- Or a Regional anaesthetic may be combined with general anaesthetic

What is a regional anaesthetic for upper limb?
A local anaesthetic drug is injected through a needle into your armpit/neck to numb the nerves of your arm and hand for few hours.

How is the regional anaesthetic performed?
1. Your anaesthetist will discuss the procedure with you beforehand
2. You will meet an anaesthetic assistant who will stay with you during your time in the theatre
3. A needle will be used to insert a thin plastic tube (a ‘cannula’) into a vein in your other hand or arm
4. You may be given some sedation through a drip to make you feel relaxed and comfortable
5. You may also be given oxygen to breathe via a lightweight, clear plastic mask to improve oxygen levels in your blood which may be continued throughout your operation
6. You will be lying on the trolley and your arm will be slipped out of the gown and will be supported by the assistant
7. The anaesthetist will explain what is happening throughout the process
8. Your anaesthetist will locate the nerves in your armpit / neck using a needle and a small electric current which will make your arm/hand twitch. Sometimes an ultrasound machine is used to locate the nerves. The Anaesthetist then will inject a local anaesthetic drug
9. As the regional anaesthetic begins to take effect, your anaesthetist will stop the sedation if necessary in order to measure its progress and test its effectiveness

For more information about our Trust and the services we provide please visit our website. www.nlgnhs.uk
What will I feel?
While the anaesthetist is trying to locate the nerves in your armpit / neck, you might feel some prodding:

- As the injection is made you may feel pins and needles or a sharp tingle in your arm – if you do, try to remain still, and tell your anaesthetist about it (see side effects and complications)
- Once the injection is finished, the regional is usually effective within 10-15 minutes
- First the skin feels numb to touch, and then the arm muscles become weak

When the injection is working fully you will be unable to move your arm or feel any pain in the arm.

Your anaesthetist will check the progress and effectiveness of the anaesthetic by using a cold spray on your arm. As the anaesthetic becomes effective, you should not be able to feel the coldness of the spray.

Only when both you and the anaesthetist are completely happy that the anaesthetic has taken effect will you be prepared for the operation.

What are the alternatives?
You may decide that you wish to have sedation while the operation is in progress. However, you may still need a general anaesthetic if:

- your anaesthetist cannot perform the regional anaesthetic satisfactorily
- the regional anaesthetic does not work satisfactorily
- the surgery is more complicated than expected
- some anaesthetists may like to combine regional anaesthetic with general anaesthetic. In this case, the regional may be performed before you are given general anaesthetic or after the general anaesthetic has been performed

Why have a regional anaesthetic?
Advantages, there may be:

- excellent pain relief immediately after surgery
- less need for strong pain relieving drugs
- less risk of chest infections after surgery
- less effect on the heart and lungs
- less sickness and vomiting
- earlier return to drinking and eating after surgery
- less confusion after the operation in older people

With a regional anaesthetic, you can talk with the anaesthetist and surgeon before, during and after surgery.

Can anyone have a regional anaesthetic?
No. A regional anaesthetic may not always be possible if the risk of complications is too high.

The anaesthetist will ask you if:

- you are taking blood thinning drugs, such as warfarin
- you have a blood clotting abnormality
- you have an allergy to local anaesthetics

For more information about our Trust and the services we provide please visit our website.  www.nlg.nhs.uk
you have an infection in your armpit / neck

Side effects and complications
As with all anaesthetic techniques there is a possibility of unwanted side effects or complications.

People vary in how they interpret words and numbers.
The table below is provided to help.

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Common</td>
<td>1 in 10</td>
</tr>
<tr>
<td>Common</td>
<td>1 in 100</td>
</tr>
<tr>
<td>Uncommon</td>
<td>1 in 1000</td>
</tr>
<tr>
<td>Rare</td>
<td>1 in 10,000</td>
</tr>
<tr>
<td>Very Rare</td>
<td>1 in 100,000</td>
</tr>
</tbody>
</table>

Very common and common side effects
These may be unpleasant, but can be treated and do not last long.

**Numbness and heaviness of arm** – As the regional anaesthetic takes effect, you will find your arm getting heavy, numb. It will be difficult for you to control the movements of your arm. Overall, most people do not find these sensations to be unpleasant, just a bit strange.

This happens as the local anaesthetic drug works on both pain nerves and the nerves controlling muscle power. You will slowly recover from this as the regional anaesthetic wears off in approximately 2-5 hours after the operation. The time taken to wear off also depends on the type of local anaesthetic drug used.

Inadequate effect of regional anaesthetic – Regional anaesthetic aims to work on the entire nerve supply of the arm. Sometimes one or more nerves can escape the local anaesthetic drug.

This will result in an inadequate anaesthetic. The regional anaesthetic having no effect at all is not common. The anaesthetist, if not completely satisfied with the effect of the regional anaesthetic, may ask the surgeon to supplement the anaesthetic by using more local anaesthetic at the site of operation. Alternatively, if needed the anaesthetist will give you a general anaesthetic.

**Pain during the injection** – As previously mentioned, you should immediately tell your anaesthetist if you feel any pain or pins and needles in your arm when a local anaesthetic is being injected, as this may indicate irritation or damage to a nerve and the needle will need to be repositioned.

Rare complications

**Bruising** – Rarely you may have bruising in your armpit / neck due to the injection given for regional anaesthetic. If bruising occurs, it usually goes back to normal in a couple of days.

**Nerve damage** – This is a rare complication of regional anaesthesia. Temporary loss of sensation, pins and needles and sometimes muscle weakness may last for a few days or even weeks but almost all of these make a full recovery in time. Permanent nerve damage is even rarer. Nerve damage could also result from a surgical procedure.
Systemic toxicity (high levels of local anaesthetic in blood) – This is a rare complication. If local anaesthetic is accidentally injected in your blood vessel, or large amount of local anaesthetic gets absorbed into your blood, it would cause a loss of consciousness and severe depression of heart function.

Infection – having an infection at the site of injection of local anaesthetic after regional block is rare.

Pneumothorax (lung puncture) – A rare complication of some regional anaesthetic techniques for upper limb anaesthesia. May need treating with insertion of a chest drain.

After your regional anaesthetic

- Your nurses will make sure that the numb area is protected from pressure and injury until sensation returns. You will be given a ‘sling’ to support your arm which should be worn until control of muscle power in the arm comes back.
- It takes two to five hours for feelings (sensations) to return to the arm that is numb. Numbness may last longer depending on the local anaesthetic drug which has been used. Your anaesthetist will inform you about the time span your regional anaesthetic is likely to take to wear off.

If you are discharged home from Day Surgery Unit before your regional anaesthetic is worn off, you should take care that your anaesthetised arm doesn’t get injured as you will not be able to recognise the damage due to having reduced or no sensation in the arm.

- As sensation returns you may experience some tingling in the skin as the regional anaesthetic wears off. At this point you may become aware of some pain from the operation site and you should ask for more pain relief or take painkillers if you are at home. In this way you will have some painkillers in your system before the pain becomes too obvious. Take the painkillers on regular basis for at least 24 hours after the operation.

- You can normally drink fluids within an hour of the operation and may also be able to eat a light diet.

If you are discharged home on the same day, you may receive a phone call from hospital, the next day, to find out about your wellbeing.

Frequently asked questions

Can I eat and drink before my regional anaesthetic?

You will need to have an empty stomach before your operation and you must follow the same rules as if you were going to have a general anaesthetic.

This is because it is occasionally necessary to change from a regional anaesthetic to a general anaesthetic.

Must I stay fully conscious?

Before the operation you and your anaesthetist can decide together whether you remain fully awake during the operation or would prefer to be sedated so that you are not so aware of the whole process.

The amount of sedation can be adjusted so that you are aware but not anxious. It is also possible to combine a regional with a light general anaesthetic.
Will I see what is happening to me?
Sometimes you can choose. Normally a screen is placed across your upper chest so that you see nothing when surgery starts. You will be aware of the ‘hustle and bustle’ of the operating theatre when you come in.
Once surgery starts noise levels drop. You will be able to relax, with your nurse and your anaesthetist looking after you. Sometimes you can listen to the music in the operating theatre.

The options available to you will vary, depending on a number of factors to do with your operation. You will be able to discuss all these possibilities with your anaesthetist at the preoperative visit.

Do I have a choice of anaesthetic?
Yes. Your anaesthetist will assess your overall preferences and needs for the surgery and discuss them with you. If you have anxieties regarding the regional anaesthetic then these should be answered during your discussions, as it is usually possible to accommodate individual patients’ wishes and still use a regional anaesthetic.

Can I refuse to have the regional anaesthetic?
Yes. If, following discussion with your anaesthetist, you are still unhappy about having a regional anaesthetic you can always say no. You will then be considered for general anaesthetic. You will never be forced to have any anaesthetic procedure that you don’t want.

Will I feel anything during the operation?
Your anaesthetist will not permit surgery to begin until you are both convinced that the regional anaesthetic is working properly. You will be tested several times to make sure of this.

You should not feel any pain during the operation but you may well be aware of other sensations such as movement or pressure as the surgical team carry out their work.

Should I tell the anaesthetist anything during the operation?
Yes, your anaesthetist will want to know about any sensations or other feelings you experience during the operation. They will make adjustments to your care throughout the operation and be able to explain things to you.

Where can I learn more about regional anaesthetic?
This leaflet is designed to give you a brief overview about your regional anaesthetic. If you would like more detailed information, speak to your anaesthetist or contact the anaesthetic department in this hospital or the organisations listed at the end of this booklet.

Useful organisations
The Royal College of Anaesthetists
Churchill House
35 Red Lion Square website: www.rcoa.ac.uk
London WC1R 4SG E-mail: info@rcoa.ac.uk
Tel: 020 7092 1500 Fax: 020 7092 1730
This organisation is responsible for standards in anaesthesia, critical care and pain management throughout the UK.

The Association of Anaesthetists of Great Britain and Ireland
21 Portland Place website: www.aagbi.org
London WC1B 1PY E-mail: info@aagbi.org
Tel: 020 7631 1650 Fax: 020 7631 4352
This organisation works to promote the development of anaesthesia and the welfare of anaesthetists and their patients in Great Britain and Ireland.

**The European Society of Regional Anaesthesia and Pain Therapy**

c/o Department of Anaesthetics
The Alexandra Hospital
Woodrow Drive
Redditch website: www.esraeurope.org
Worcestershire B98 7UB Tel/Fax: 01527 512047

This organisation works to further regional anaesthesia in Europe.

**Some of the information in this leaflet was provided by:**
The Royal College of Anaesthetists
The Association of Anaesthetists of Great Britain and Ireland

You can also find more information in other leaflets at the following website:
www.youranaesthetic.info

**Concerns and Queries**

If you have any concerns / queries about any of the services offered by the Trust, in the first instance, please speak to the person providing your care.

**For Diana, Princess of Wales Hospital**

Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01472) 875403 or at the PALS office which is situated near the main entrance.

**For Scunthorpe General Hospital**

Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01724) 290132 or at the PALS office which is situated on C Floor.

Alternatively you can email: nlg-tr.PALS@nhs.net

Northern Lincolnshire and Goole Hospitals NHS Foundation Trust
Diana Princess of Wales Hospital
Scartho Road
Grimsby
01472 874111

Scunthorpe General Hospital
Cliff Gardens
Scunthorpe
01724 282282

Gooele & District Hospital
Woodland Avenue
Goole
01405 720720
www.nlgnhs.uk

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