

+ Chest training

The aims of this leaflet are:

- To introduce some basic information about why chest problems can occur after major surgery
- To help you understand what you need to know about the common occurrence of chest problems after surgery
- To introduce the ICOUGH bundle, which aims to prevent and reduce the impact of chest problems after surgery
- To help you to complete some chest training before your operation



Background

Major surgery requires patients to be under general anaesthetic (GA) for several hours. The GA has several effects on the way that lungs function and this can persist for up to 7 days after major surgery. This can lead to some difficulty with the movement of secretions out of the lungs which can cause secondary infection. This can be compounded by the swelling of abdominal structures which can occur after surgery and lead to the base of your lungs being squashed.

Being immobile after your operation and staying in bed for long periods of time can further suppress your lungs. Also, inadequate pain relief may cause you to take smaller, shallow breaths preventing your lungs from fully inflating.

The risk of developing a chest infection after surgery is increased by bacteria living in your mouth which tends to increase after surgery and can migrate into your chest, causing infection.

Does it matter if I get a chest problem after surgery?

Most patients will make an excellent recovery after major surgery, but chest problems which can affect 1 in 10 to 1 in 5 people after major surgery will mean that you spend longer in hospital and a longer time at home recovering before you feel back to normal.

How do we reduce the risk of chest problems after surgery?

We use the ICOUGH bundle as part of ERAS+ to help patients reduce their risk of chest problems after major surgery. It provides a set of techniques that aim to keep patients lungs 'big' after surgery. Other elements of the bundle have been developed to help secretions move out of the lungs by encouraging patients to improve oral hygiene techniques before and after surgery.

The ICOUGH bundle comprises:

I – Incentive spirometry (IS)

C – Coughing with good pain control

O – Oral healthcare

U – Understanding ICOUGH

G – Getting out of bed & mobilisation after surgery

H – Head of bed elevated to improve breathing technique



I – IS trains you to keep lungs big

IS encourages patients to take deep breaths which re-opens the base of your lungs after surgery and encourages the movement of secretions out of your lungs. This helps reduce respiratory problems and keeps lungs ‘big’.

The IS device has 3 balls which are lifted in turn by the patient taking an increasingly big breath. The aim is to raise all 3 balls by taking in a deep breath. You can watch an example of this on our website: www.erasplus.co.uk

Before surgery: you will be given an IS device to begin ‘training your lungs’ in preparation for surgery.

You should aim to undertake IS training at least 4 times a day before surgery with 5-10 slow deep breaths undertaken. If you feel lightheaded using the IS then stop, rest and then recommence when you feel back to normal.

After surgery: You will be given an IS device in hospital and encouraged to use it on an hourly basis until you are mobilising normally. This will support you in keeping your lungs big and help reduce the risk of chest problems.

C – Coughing with good pain control

Coughing after surgery is completely safe and will not cause you any damage. You need to cough effectively after surgery to clear secretions. If you don’t cough well, your lungs will not open properly and this, in turn, increases the risk of secondary infection. We will encourage you to cough independently when you feel you need to.

Good pain control is very important after major surgery and allows you to cough, take deep breaths and mobilise. These are all very important and will all help prevent secondary chest problems after surgery. Pain control for major surgery is provided in several ways. Your Consultant Anaesthetist will talk you through the various options.



O – Oral healthcare

The risk of chest infection after surgery is increased by bacteria living in your mouth and can migrate into your chest causing infection. We can reduce the risk of this happening by advising you to undertake high quality oral healthcare in the time before and after surgery.

Before surgery:

- Brush your teeth/dentures two or three times per day
- Use antibacterial mouthwash 10-15 minutes after brushing two or three times daily
- Attend your dentist if you have active dental problems

In hospital after surgery:

- Continue to brush your teeth in hospital at least twice per day
- Use chlorhexidine mouthwash twice daily

U – Understanding

We will use multiple healthcare interactions to explain how and why we use ICOUGH to help reduce patient chest complications after major surgery. For further information, please visit: www.erasplus.co.uk



G – Getting out of bed & mobilisation after surgery

Getting out of bed and getting yourself mobile after surgery is very important. We encourage you to take control of your recovery with the support of healthcare professionals.

Early mobilisation after surgery is fundamental to a good recovery. It helps to reduce the risk of chest problems, improves gastro-intestinal function so helping you eat and drink sooner, and also reduces the risk of deep vein thrombosis.

We always aim to mobilise you on the first and every subsequent day after surgery, alongside increasing activity each day.

H – Head of bed elevated to improve breathing technique

After surgery, it is helpful for your lungs if you sit up in bed rather than lying flat. This helps in two ways: By sitting higher whilst in bed, your lungs have more room to expand and so are less likely to be squashed after surgery and helps keep the lungs big. This is supported by early mobilisation which is even better with sitting and standing providing the best position for lungs to re-expand and stay big.

For more information, or to watch a video about the ERAS+ programme, visit: www.erasplus.co.uk

