



York and Scarborough
Teaching Hospitals
NHS Foundation Trust

Recovering from Major Abdominal Surgery

Physiotherapy advice and exercise guide
for patients, relatives and carers

① For more information, please contact:

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What is this leaflet about?

This is a guide about what physiotherapy and exercises will help you in your recovery after major abdominal surgery and return to everyday life.

Major abdominal surgery is when you have had either a large cut in your abdomen or complex keyhole surgery. This could be due to bowel, bladder, vascular or another type of procedure.

This leaflet covers some common questions patients have about physiotherapy and exercises.

This booklet covers exercises and advice for:

- Before your operation
- After your operation
- After you return home

If there are any questions that you feel have not been answered within this leaflet, then please contact the physiotherapy team.

Pain management (Please see leaflet on Epidurals and PCA for pain relief after surgery)

It is normal to experience pain after surgery. However, the pain can vary from person to person. Whilst on the ward we will ask you to scale your pain from 0-10, with 10 being uncontrollable pain.

By doing this it provides the team with insight on how well your pain relief is currently and how we can best help your recovery.

Types of Pain Relief

There are numerous methods of pain relief –

- Oral Medications
- Intravenous (IV) Drip
- Skin patch
- Epidural (line into your back)
- Patient Controlled Analgesia (PCA) – This includes a button in which you press regularly to maintain your pain relief.

Side effects

Pain relief can cause side effects such as nausea, drowsiness, confusion and constipation. Please ensure you discuss this with your nurse if you begin experiencing any one of them.

Ensure you keep taking you pain relief to prevent the pain from building and becoming severe. You can also try to change positions regularly. Mobilise or distract yourself with reading, listening to music or watching television.

Exercise summary –

Exercises before your operation:

- General exercise
- Deep breathing exercises
- Core stability exercises

Exercises after your operation:

- Sitting out daily
- Walking around the ward
- Deep breathing exercises
- Airway clearance techniques
- Circulation exercises
- Chair Exercises
- Standing Exercises
- Core stability exercises

Exercises after you have returned home:

- Deep breathing exercises
- Chair exercises
- Standing exercises
- Core stability exercises
- General exercise

What exercises do I need to do before my operation?

General exercise

You should try to start exercising as soon as you know you are having an operation. Aim to do at **least 30** minutes of exercise daily, or as much as you are able. Examples of exercise are brisk walking, swimming or cycling. If you need to you can break the 30 minutes into smaller sessions.

Doing these general exercises before your operation can help to reduce the risk of complications after surgery such as chest infection and blood clots (known as deep vein thrombosis or DVT).

Deep breathing exercises

You should start to practise “deep breathing exercises” as soon as you know you are having an operation. This will allow you to become familiar with them and aid you to efficiently complete them post-operatively.

See **page 10** for these exercises.

These exercises help to reverse the effects of anaesthetic and prevent chest infections.

Core stability exercises

Having major abdominal surgery will affect your abdominal muscles and therefore the strength and stability of your trunk (known as core stability).

To improve your core stability, you should start specific exercises before your operation. Aim to do these regularly. Details are on **pages 18-20**.

Getting up and around after your operation –

Getting in and out of bed –

You can help to reduce the pain in your wound when getting in and out of bed by rolling onto your side before sitting up, avoiding the twisting of your stomach. Sit up by pushing through your arms and lowering your legs off the edge of the bed.

Sitting in a chair –

Within the first day of your operation, you should aim to sit out into a chair. Someone will always be there to help you initially. Depending on your pain relief, surgery and medical history, you may feel a dizzy initially when sat upright for the first time. This is due to a drop in blood pressure (postural hypotension/orthostatic hypotension) and is very common. It is often worse in the morning and should settle throughout the day.

Once sat out, make sure you are comfortable; a pillow behind your back for support and make sure you are keeping your legs uncrossed.

It is important to sit out for a **minimum of one hour** on the first day and then increase each day. Gentle movement whilst in the chair will help you sit out for longer and will reduce the risk of skin/pressure damage.

Walking –

When it comes to walking, you will always have someone with you or an aid until you are independent and safe. When you first stand up or start walking around you may be tempted to stoop, but aim to stand up straight. It is normal to feel your wound stretch when trying to stand straight. This will not harm your wound.

Setting yourself daily goals for distances on the ward will aid your recovery physically and mentally and allows you to see progress each day.

Sleeping –

If you normally sleep on your back, try placing a pillow underneath your knees to allow a slight bend in them. A pillow with good neck support and a towel or rolled up bed sheet across your stomach will help with comfortableness.

If you prefer to sleep on your side, then place a pillow between your knees and utilise neck and stomach support as required.

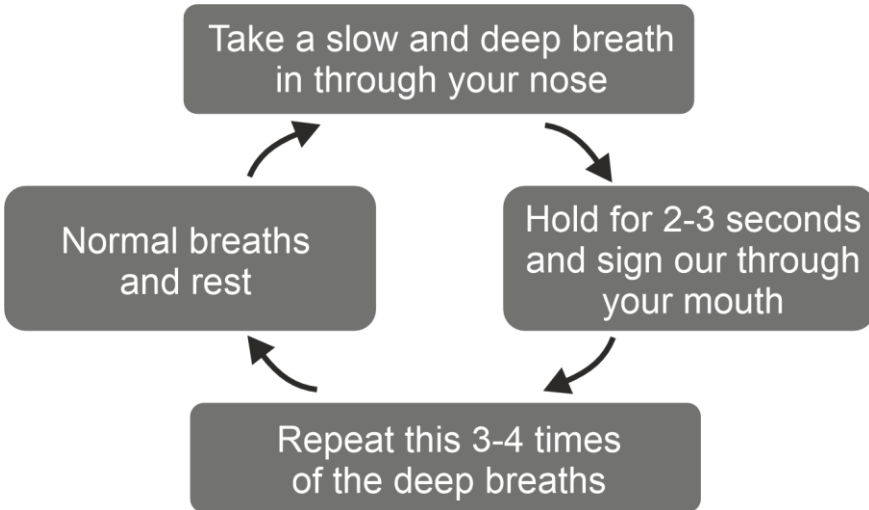
What exercises do I need to do after my operation?

Deep breathing exercises –

Regular deep breathing will aid you to –

- Keep your chest clear
- Prevent a chest infection
- Relax and calm you
- Ease nausea (sickness)
- Ease wind pain

Ensure you have had adequate pain relief. Place the rolled-up towel over your stomach. Place both hands over the towel so you are supporting the wound. It will help if you hold yourself this way when you cough, laugh or sneeze.



Complete the cycle **three to four times** every **hour** during the day.

You may have been given an incentive spirometer in pre-assessment clinic. If so, continue these in addition following information in the incentive spirometer leaflet.

Exercises for airway clearance –

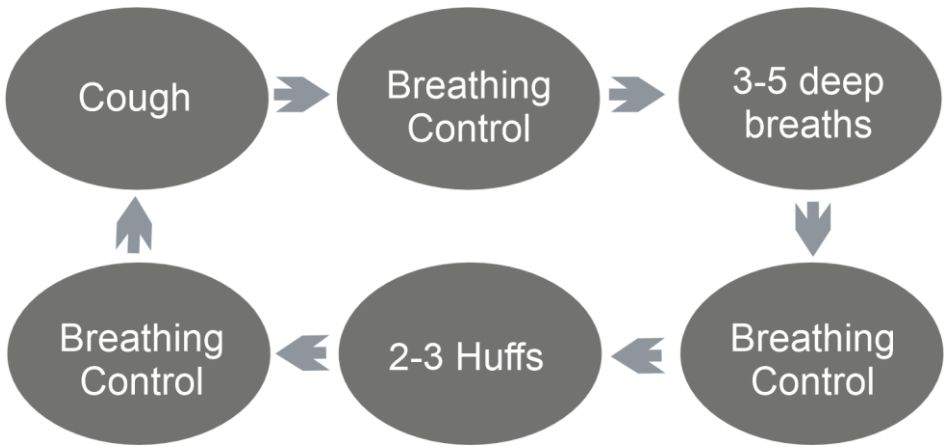
If you have the need to cough ‘something up’ (secretion/phlegm/sputum), the least painful and most effective way is the ‘huff’.

- Follow the flow diagram on the previous page
- After your fifth deep breath do a short, forced breath out through an open mouth as if steaming up a mirror (this is a huff)

You can now combine these two techniques to form what is called the **‘active cycle of breathing’**.

Active cycle of breathing –

Same as with deep breathing exercises, ensure you have had adequate pain relief prior and are in an upright position with a rolled-up towel over your stomach.

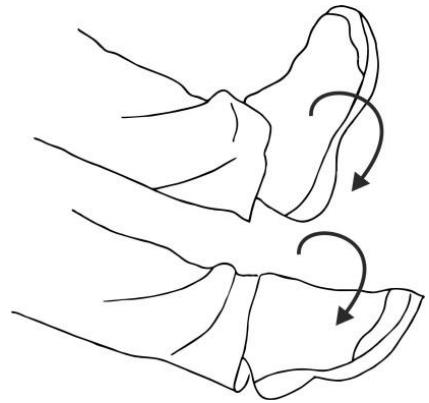
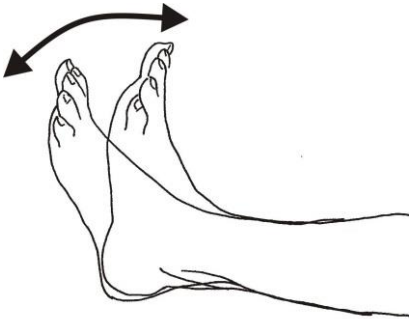


Try to do these at least **four times per day**. Increase the repetitions of the cycles if your chest becomes more productive with phlegm.

Circulation exercises –

Complete this exercise as soon as you are able, to reduce the risk of a blood clot (DVT). These exercises do this by maintaining the flow of blood in your legs whilst you are not as mobile as you normally might be.

- Keep your legs and ankles uncrossed at all times.
- With your legs stretched out, briskly circle your feet, and bend them up and down.



Continue this for **30 seconds**, **10 times** on each side every **hour** throughout the day.

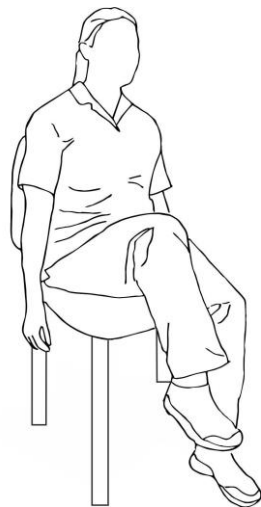
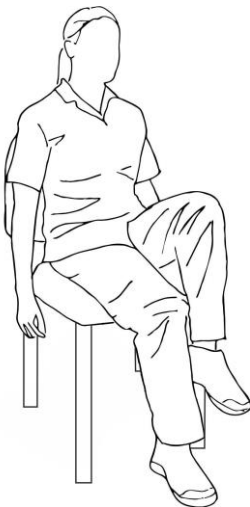
Chair and standing exercises –

When beginning these exercises after your operation, **remember:**

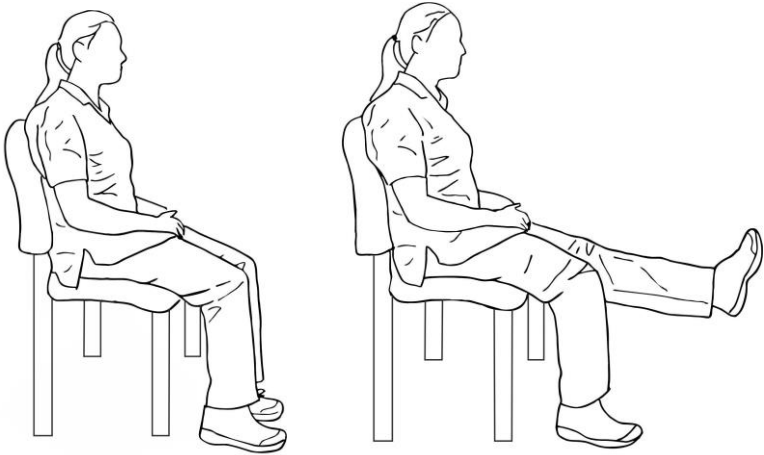
- Exercise should not cause pain, though you may feel some discomfort.
- Do not exercise if you feel unwell or you are in pain.
- Start gently and progress as you feel comfortable.
- Try not to compare yourself with others, every journey is different.
- Don't hold your breath during the exercises.
- Keep hydrated as much as possible.

Start with exercises sat in a chair:

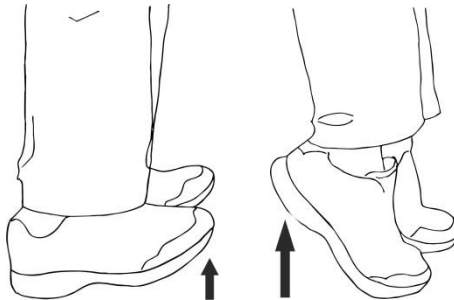
- March your knees alternately for **30 seconds**.



- Bend and straighten your knees. Hold your knee straight for **10 seconds**, keeping toes pulled up. Repeat **5 times** with each leg as you are able.



- Lift your heels and toes alternately for **30 seconds**.

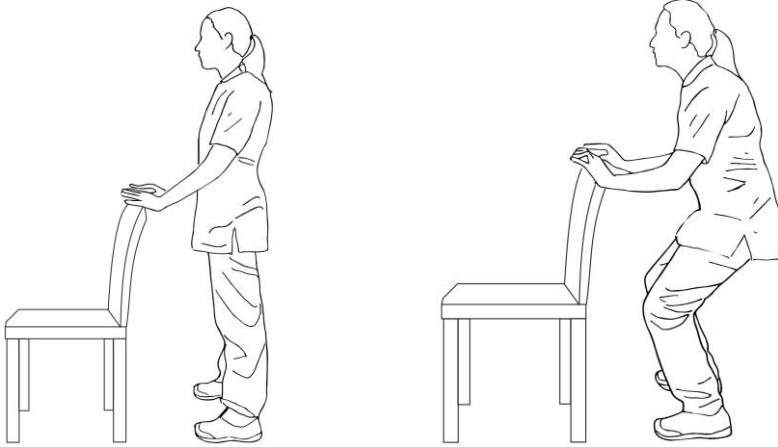


Once you can do these exercises comfortably, progress to exercises in a standing position. Place your hands on a supportive surface for example, back of a bedside chair or windowsill. Make sure your shoulders are not hunched and that you're standing tall:

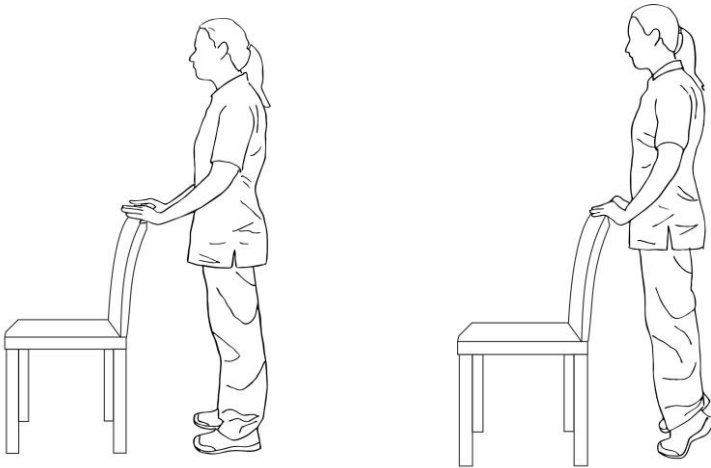
- March for **30 seconds**.



- Small squats. Aim to repeat **10 times** keeping the movement slow and controlled.



- Push up onto your toes **10 times**.



Complete these exercises as often as is comfortable, aiming to increase to **three times daily**.

Core stability exercises –

Having major abdominal surgery will affect your abdominal muscles and hence your core stability.

It is safe to begin core stability exercises the first day after your operation.

Core stability exercises may help to ease abdominal pain, low backache, constipation and prevent the formation of a hernia.

The best position to do these exercises is lying on your back on the floor or on a bed, knees bent, feet flat and hip width apart and a pillow behind your head providing neck support.

Exercise Prescription**3-5**..... Repetitions
.....**2**..... Times a day

As the muscles get stronger you will find that you can hold for longer and do more repetitions.

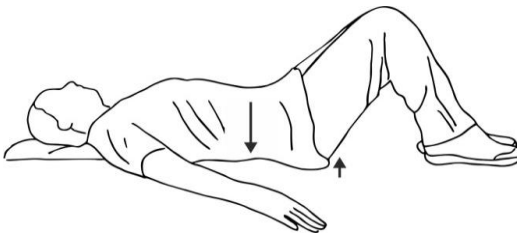
We strongly advise you to **avoid** exercises like sit ups as they put undue pressure on the abdominal wall. Although the wall has been stitched back together with strong sutures it will take a while to regain its original strength; whilst healing it will be weak and prone to a hernia developing.

1. Deep abdominals



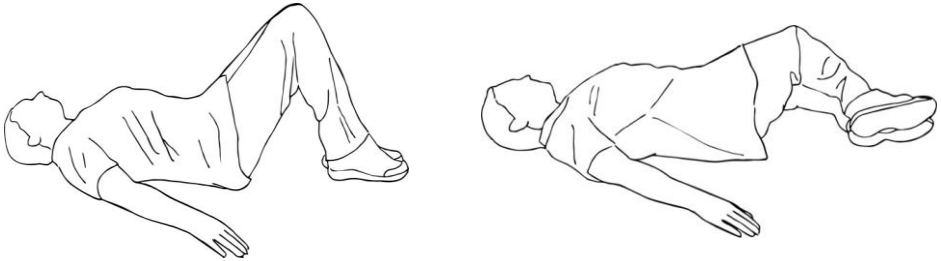
- Breathe in, gently letting your stomach rise.
- As you breathe out, gently draw your belly button towards your spine.
- Hold for **5-10** seconds, then relax.
- Rest for a few seconds. Then repeat.

2. Pelvic tilting



- As you breathe out and draw your stomach in, gently tilt your pelvis and flatten the small of your back into the bed.
- Hold for **5-10** seconds, and then relax.
- Rest for a few seconds. Then repeat.

3. Knee rolling



- Draw and hold your stomach in.
- Slowly lower your knees to one side, making sure that your shoulders remain on the floor or bed.
- Hold for **5-10** seconds.
- Return to the starting position.
- Lower your knees to the other side making sure that your shoulders remain on the floor.
- Keep breathing normally.

4. Pelvic floor exercises

- Squeeze the muscles at the back passage as if trying to stop wind, then squeeze forwards and up as if trying to stop the passage of urine.
- Aim to achieve your maximum squeeze and hold the squeeze for **10 seconds**.
- Do not hold your breath.

Exercise record table

Below is a table to keep record of your deep breathing exercises and circulation exercises

Day / Time	1	2	3	4	5	6	7
8am							
9am							
10am							
11am							
12pm							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							

Below is a table to keep record of your core stability exercises

Day / Time	1	2	3	4	5	6	7
Morning							
Afternoon							

What exercises do I need to do after I return home?

After major abdominal surgery with a large incision, it takes about two to three months to be able to move around comfortably. If you have had complex keyhole surgery your recovery will be quicker.

If you have had a large incision in your abdomen, you should avoid lifting anything heavier than 2-3kg. This is about the weight of a full kettle. A general rule is that if lifting an object causes pain, then do not do it.

You can seek the advice of your surgeon on what is enough exercise and what is too much exercise for you.

It takes about two years for the strength of your abdominal wall to return to the strength you had before the operation. To achieve this, you should continue your core stability exercises two times daily remembering that the exercises may cause discomfort but should not cause pain.

Your strength and stamina will slowly improve. In addition to your normal daily activity, you can also continue the seated and standing exercises to build strength.

Regular Activity –

Aim to walk every day gradually increasing the distance. You should aim to be able to walk **30 minutes** daily by two to three months after your operation. Start walking on level ground and gradually build up to inclines and uneven ground such as cobble paths. Walking on uneven surfaces requires small changes of direction which can cause some discomfort in the healing abdominal muscles.

After two to three months, you could consider moderate exercise like swimming or cycling. To progress your core stability exercises you could attend a Yoga or Pilates group. However, seek advice from the group's instructor about an appropriate level of exercise.

If you wish to return to a specific sporting activity, please discuss this with your team.

Frequently asked questions (FAQs)

Who will look after my wound once I am at home?

Initially you will need daily dressings. When you are discharged, the nursing staff will advise you on the frequency of dressings and who will do this for you. It is likely to be either a district nurse or practice nurse depending on your ability to attend your GP practice. They can give you advice about when your skin staples or sutures need to be removed.

When can I have a bath or shower?

If your wound has healed well, you will be able to take a shower within a week of the operation. You can have a bath if you prefer. If you have a stoma there are also a range of aids/devices that may assist you in this such as covers, please speak with your stoma nurse for advice.

When can I return to driving?

The anaesthetic drugs will be in your system for at least 48 hours. Do not drive during this time. Once you feel comfortable practice an emergency stop in a parked car and once able to do so safely, then you can consider driving. You will need to inform your insurance, so they are aware of any changes to your medical health.

When can I return to work?

When you are able to return to work depends on the type of surgery you have had and your job. If your job is of a physical nature, you should expect it to take longer to return to work than a job that is more sedentary. Please discuss this with your surgeon.

Will I regain muscle control and sensation in my abdomen?

You will find that gradually you will recover the function of the abdominal wall over a few months. In the initial few months, you will notice a considerable area of numbness of the abdominal wall. This will slowly improve and with time may recover completely. It is not unusual to have some persistent numbness all your life.

How long should I continue the deep breathing and physiotherapy exercises for after being discharged from hospital?

You should continue with your exercises after discharge from hospital for at least **four weeks**. To enable your recovery once home. As you gradually return to your normal level of activity you can reduce the amount.

Useful resources and websites

Pelvic Pain support

<https://www.pelvicpain.org.uk/>

Guts Charity

<https://gutscharity.org.uk/>

Bladder and Bowel Community

<https://www.bladderandbowel.org/>

The Circulation Foundation

<https://www.circulationfoundation.org.uk/>

Crohn's and Colitis UK

<https://www.crohnsandcolitis.org.uk/support>

Bowel Cancer UK

<https://www.bowelcanceruk.org.uk/>

British Hernia Society

<https://www.britishherniasociety.org/>

Macmillan Cancer Care

<https://www.macmillan.org.uk/>

[Websites accessed April 2024]

Cancer Care Centre, York Hospital

Telephone – 01904 721166 – Monday - Friday

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

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Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

Owner	Rebecca Wilson, Senior Physiotherapist, & Jenny Olivey, Advanced Clinical Specialist Physiotherapist
Date first issued	May 2017
Review Date	June 2027
Version	3 (issued June 2024)
Approved by	Jenny Olivey, Advanced Clinical Specialist
Document Reference	PIL 1119 v3
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