Physiotherapy after breast reconstruction surgery using a DIEP or TRAM flap

This leaflet gives you advice about recovering from breast reconstruction and returning to normal, everyday activities. It explains exercises you should do each day, things to look out for, and some general advice about your recovery.

This leaflet is suitable for people who have had:
- breast reconstruction using a deep inferior epigastric perforator (DIEP), or transverse rectus abdominis myocutaneous (TRAM) flap
- breast reconstruction with axillary node clearance
- chemotherapy
- radiotherapy.

If you have not had breast reconstruction surgery using tissue from your abdomen, this is not the correct leaflet for you. You will need to follow a different exercise plan. Please contact your breast care nurse or physiotherapist.
Please use the information in this leaflet as a general guide. If you have any specific concerns or questions, or medical issues (particularly with your lungs or heart), please speak to a health care professional before doing any physical activity.

If, after leaving hospital, you notice any sudden changes in the colour, texture, temperature or size of your breast, or affected arm, you should contact your breast care nurse as soon as you can.
Early recovery advice

Important information: days 1-7 after your operation

- Do not lift your operated arm(s) above shoulder height. This is to protect the new blood supply to your breast(s).
- Do not push or pull excessively with the operated arm(s).
- At first, when standing or walking, it is advisable to be a little stooped to reduce the stress over your abdominal scar.
- Remember to support your abdominal scar, as needed, when coughing, sneezing or taking a deep breath.
- While in hospital and when resting in bed, you should lie on your back with knees supported and head rest elevated.
- Get up and walk around as much as you can. Please ask for help with this if necessary.
- The pictures below demonstrate a more comfortable way for you to get in and out of bed.
Benefits of exercise

Why do I need to exercise after my surgery?
It is important that you follow the exercise plan in this leaflet because it will:

- prevent shoulder stiffness and help you to regain full movement and function of your shoulder
- encourage your circulation and help your scar to heal
- improve symptoms of tightness and cording
- help to reduce the risk of lymphoedema
- if needed, help you to get into the required position for radiotherapy (see picture below).

You will not necessarily be seen by a physiotherapist after your surgery. If you wish to see a physiotherapist, please ask your nurse or doctor to let us know, or contact us directly, t: 020 7188 9654, 9am-4.30pm. If you are worried about any symptoms after your surgery please speak to your breast care nurse, doctor or physiotherapist.
How much exercise should I do?
Once discharged, you should try to do the exercises in this booklet every day. We recommend that you do five repetitions of each exercise and practice this four times a day. You shouldn’t feel any pain when doing the exercises although a stretching or pulling sensation is normal. You should move as much as you can. The more you do the exercises, the easier they should become.

Always do the warm up and cool down exercises at the start and end of each session, to help avoid injury and prevent stiffness. If you become concerned about the movement at your shoulder(s), or level of discomfort you are experiencing, please speak to your breast care nurse or physiotherapist.

How long shall I do the exercises for?
Arm stiffness and weakness can persist for some time after surgery and radiotherapy, so it is important to exercise regularly. If you have just had surgery, keep doing the exercises until your shoulder movement has returned to normal (the movement you had before your operation). If you are going to have radiotherapy, keep doing the exercises throughout radiotherapy, and then for as long as you are still experiencing tightness and stiffness afterwards.

Please talk to your breast care nurse or physiotherapist if you are unsure how long to keep exercising after your treatment, or if you have any concerns about your recovery.
Reasons to stop exercising
Stop exercising and speak to your doctor or breast care nurse if you have:
• seroma (a collection of fluid under the arm, in the breast, or chest wall)
• a wound infection or healing issues
• worsening pain.

It is important to restart the exercises again as soon as possible, but please follow the advice of your healthcare professional.

Remember that some swelling is a normal reaction to surgery and a natural stage of how your body heals. If you are concerned, please contact your breast care nurse.
Your exercise plan

There are two stages to your exercise plan:

**Stage 1**  
Start these exercises **four to seven days** (when discharged), after your operation on the ……………………..  
Continue for one week.

**Stage 2**  
Start these exercises **two weeks** after your operation on the ……………………..  
Continue until your arm feels back to normal, or until approximately 3-4 weeks after completing radiotherapy.

**Second week after surgery**  
Perform the warm up exercises, stage 1 exercises, and cool down.

**Third week and beyond**  
Do the warm up, stage 2 exercises, and cool down.

These timings are meant as a guide and you should complete the exercises at your own pace. Please seek advice from your breast care nurse or physiotherapist if you have any concerns.

Link the exercises with something you do every day (such as meals) and they will soon become part of your routine. We recommend you do these exercises with both of your arms. You may however choose to do them on your operated side only.
Warm up/cool down exercises
Do exercises 1 and 2 to warm up before you do any other exercises in this leaflet. Repeat them to cool down after completing any exercises. You can do them standing up or sitting down.

Exercise 1 – Shoulder shrug
Keep your arms loose and relaxed by your sides. Shrug your shoulders up towards your ears and lower gently back down.
Repeat four times a day, five repetitions.

Exercise 2 – Shoulder circling
Keep your arms loose and relaxed by your sides. Shrug your shoulders up towards your ears, then circle them back and down.
Repeat four times a day, five repetitions.
Stage 1 exercises
Start these exercises four to seven days after your operation. Continue for one week. You can do them sitting down or standing up. Remember to warm up first. In these exercises, do not raise your arms above shoulder level (90 degrees).

Exercise 3 – Bent arm forwards
Bend your elbows and rest your hands lightly on your shoulders. Raise both your arms upwards and forwards so they are at right angles to your body. Lower your elbows slowly, then raise them again to repeat. Repeat four times a day, five repetitions.

Exercise 4 – Bent arm sideways
Bend your elbows and rest your hands lightly on your shoulders. Raise both your arms out to the side so they are at right angles to your body. Lower your elbows slowly, then raise them again to repeat. Repeat four times a day, five repetitions.
Exercise 5 – Back scratching
Hold your arms out to the sides and bend your elbows. Slowly reach up behind your back to just under your shoulder blades. Then slowly lower your arms back down to your sides.
**Repeat four times a day, five repetitions.**

![Exercise 5 Diagram]

Exercise 6 – Shoulders back
Keeping your arms by your side, push your shoulder blades forwards, and then pull your shoulder blades back – squeezing your shoulder blades together.
**Repeat four times a day, five repetitions.**

![Exercise 6 Diagram]
Exercise 7 – Pelvic tilt
You can do this exercise lying down on your bed. Bend your knees up, one at a time, and have your feet firmly placed on the mattress. Contract your abdominal muscles, without holding your breath. Hold this position while gently rocking your pelvis back and forth (create an arched back and then flat back), and then relax. **Repeat four times a day, five repetitions.**
Exercise 8 – Knee roll
You can do this exercise lying down on your bed. Bend your knees up, one at a time, and have your feet firmly placed on the mattress. Contract your abdominal muscles, without holding your breath. Hold this position while keeping your knees together. Move your knees sideways rhythmically to the left and right – avoiding any movement of the pelvis, and relax.

Repeat four times a day, five repetitions.

If you develop a seroma please discuss your exercise plan with your breast care nurse, surgeon or physiotherapist.
Stage 2 exercises
Start these exercises in the third week after your operation (or after you have had your drain(s) removed). Continue until your arm feels back to normal, or until about 3-4 weeks after completing radiotherapy. Remember to warm up and cool down, and if you experience any issues with swelling, pain or infection, please speak to your surgeon or breast care nurse.

Exercise 9 – Arm lifts
Lying on your back, with head supported, take 3-4 deep breaths to relax your shoulders. Clasp your hands together, or hold onto a stick or broom. Keep your elbows straight and lift your arms up and over your head as far as you can, to feel a mild stretch. Hold and count to 10, and then slowly lower. If you have difficulty lying down, you can do this exercise sitting down. Repeat four times a day, five repetitions.
Exercise 10 – Side arm lifts
With your elbows straight, raise your arms outwards from your sides, with your palms facing up. Continue raising your arms out to the side until your fingers point to the ceiling, and then slowly lower them back to your sides.
Repeat four times a day, five repetitions.
Exercise 11 – Wall climbing
With your feet apart, stand facing a wall. Place both hands on the wall, at shoulder level. Facing forwards, gradually work your hands up the wall, sliding them or using your fingers to climb. Go up as far as you can, to feel a stretch but not pain. Aim to get your elbows as straight as you can. Hold and count to ten. Then slowly lower arms to shoulder height before repeating the exercise. **Repeat four times a day, five repetitions.**

Exercise 12 – Sideways wall climbing
Stand sideways to the wall with your affected side nearest the wall. Put your hand on the wall at shoulder level. Gradually work your hand up the wall, sliding it or using your fingers to climb. Go up as far as you can, to feel a stretch but not pain. Aim to get your elbow as straight as you can. Hold and count to ten. Then slowly lower arm to shoulder height before repeating the exercise. **Repeat four times a day, five repetitions on each arm.**
Exercise 13 – Elbow push
Lie on your back with your hands behind your head and your elbows out to the sides. Gently push your elbows downwards into the bed, or floor, as far as is comfortable. Hold and count to ten and then relax. Repeat four times a day, five repetitions.

Exercise 14 – Upper back scratch
Bend your elbow of your operated side and rest your hand lightly on your shoulder. Reach your hand down your back towards your shoulder blades to feel a stretch under your arm. Then slower lower your arm back down to your side. Repeat on other arm as needed. Repeat four times a day, five repetitions on each arm.
Exercise 15 – Pelvic tilt
You can do this exercise lying down on your bed. Bend your knees up, one at a time, and have your feet firmly placed on the mattress. Contract your abdominal muscles, without holding your breath. Hold this position while gently rocking your pelvis back and forth (create an arched back and then flat back), and then relax. **Repeat four times a day, five repetitions.**
Exercise 16 – Knee roll
You can do this exercise lying down on your bed. Bend your knees up, one at a time, and have your feet firmly placed on the mattress. Contract your abdominal muscles, without holding your breath. Hold this position while keeping your knees together. Move your knees sideways rhythmically to the left and right – avoiding any movement of the pelvis.
Repeat four times a day, five repetitions.

If you develop a seroma please discuss your exercise plan with your breast care nurse, surgeon or physiotherapist.
Additional exercise programme
Eight weeks after your surgery (if all wounds are fully healed) you can progress on to more difficult abdominal (tummy) exercises (see below).

These exercises will help to build up your abdominal muscle strength and flexibility.

Exercise 1 – Sit up
Start by doing gentle sit ups, by bringing your chin to your chest, and slowly moving your hands towards your knees, lifting your shoulder blades off the bed. Breathe in as you are moving up and out on your way down. Do as many as you feel that you can – 5-10 repetitions is a good starting point.

You can build up this exercise by moving your hands closer to your knees and lifting more than your shoulder blades off the bed.
Exercise 2 – Bridging
You can do this exercise lying down on your bed. Bend your knees up, one at a time, and have your feet firmly placed on the mattress. Contract your abdominal muscles, without holding your breath. Push your pelvis up into the air making sure your knees, hips and shoulders are all in a straight diagonal line. Keep your pelvis steady and perform the movement nice and slowly.

Do as many as you feel that you can – 5-10 repetitions is a good starting point.
Exercise 3 – Abdominal stretching
Start by lying on your front and propping yourself up on your elbows. Gently lift your arms from the supporting surface. It is normal to feel a stretch in your abdominal area, but it should not be painful. Hold this stretch for 10-30 seconds, and relax. Three repetitions is a good starting point.

You can progress this stretch by propping yourself up with your elbows slightly further forward.
Exercise 4 – Abdominal stretching
Start by kneeling down. Slowly reach forwards with your arms stretched out in front of you, to feel a stretch at your shoulders and lower back. This should not be painful. Hold this stretch for 10-30 seconds and relax. Three repetitions is a good starting point.
What can I do to aid my recovery?
Complete your exercises slowly and gently and do not do any painful stretches.

You should feel a gentle stretch when exercising, but not pain. If needed, we recommend you to take your painkillers (as prescribed) 30 minutes before you exercise. It is important that you follow the instructions that come with your painkillers and that you do not take more than the recommended dose. If you have any questions regarding pain relief please contact your breast care nurse or doctor.

Exercise can help to maintain strength and fitness, reduce tiredness, and also aid recovery. It can also help to minimise potential side effects during chemotherapy and radiotherapy. Please contact a physiotherapist, t: 020 7188 9654, if you need guidance or advice about planning or starting any form of physical activity, or if you would like to join our rehabilitation gym programme.

Cording
Your exercises can help to reduce the risk of, and treat, cording.

You may notice some tight bands/cords that develop under your armpit, sometimes stretching down to your wrist. This is known as cording, but it is nothing to be concerned about. Not everyone develops cording. Exercise will help relieve these cords, so it is important to continue with your exercise programme if cording develops.

If you develop cording, please contact your physiotherapist, t: 020 7188 9654, especially if you are due to start radiotherapy very soon.
Seroma
If you experience a seroma (pocket of swelling after surgery) please be guided by your healthcare professional regarding your exercise plan.

Massage
Self massage can help with the recovery of your scars. Once your scars have fully healed, it is recommended to perform daily massage around your scars. When you feel ready, using your fingers, or the palm of your hand, press down gently on the tissue surrounding your scar and move the top layer of skin on the underlying layers in a circular motion. This will assist in softening the scar, by improving circulation to the area, and might also help to improve sensation.

Providing your scars have fully healed, you can continue to use your favourite creams to massage the area. However during, and for about four weeks after radiotherapy, you will be advised on which creams and moisturisers you can use on your skin.

Posture
Your exercises can also help to maintain a good posture following your surgery.

Lifting and carrying
Avoid heavy lifting and carrying, especially above shoulder height, for two weeks after your operation, or until your scars have healed. You can then gradually return to normal activities once you feel ready.
Repetitive tasks
Take care with repetitive tasks such as sewing, typing, writing, dusting, and vacuuming for 2-3 weeks after surgery, as they may increase swelling, or induce achiness or heaviness in the affected arm(s). Return to these activities gradually and make sure that you pace yourself with regular breaks.

Returning to previous activities, hobbies, and sport
Take gentle exercise, such as walking, immediately after your surgery.

This can help to maintain strength and fitness, reduce tiredness, and also aid recovery. It can also help to minimise possible side effects during chemotherapy and radiotherapy. Please contact a physiotherapist, t: 020 7188 9654 if you need guidance, or specific advice, about planning or starting any physical activity.

8-12 weeks after surgery
At this time you can start to return to higher impact activity and exercise. Please contact your physiotherapist if you need guidance or specific advice.

Swimming
Swimming is a great form of exercise. You should be able to continue to swim during radiotherapy, but please speak to your healthcare professional for individual advice, and do not swim until your scars are fully healed. You should check with your oncologist about swimming during chemotherapy. Remember to pace your return to sports/exercise and set yourself achievable and realistic targets.
**Pilates and yoga**
These are excellent forms of activity following breast surgery.

We recommend a gradual return to Pilates or yoga, however you should not try any positions where you weight bear through your arms until about 8-12 weeks after surgery. At this time you should return to these activities gradually and not hold any static positions, through your arms, for longer than 10 seconds without a rest.

**12 weeks after surgery**
At this time you should have resumed normal levels of activity.

We recommend 150 minutes (2½ hours) each week of moderate intensity activity (this can be broken down into shorter sessions to reach a total of 150 minutes). Remember to plan, pace and prioritise your activity and try to include a variety of activities.

During moderate intensity exercise your heart rate and breathing rate should increase, and you might break into a sweat, but you should still be able hold a conversation. To measure your breathing rate, imagine a scale of 0-10, where 0 is you breathing normally at rest, and 10 is extreme breathlessness. Aim to reach 4/10 breathlessness. This is a moderate intensity of physical activity.
Further considerations

Driving
We recommend you do not drive until you feel confident that the seat belt sits comfortably across your chest wall
- you can safely and confidently handle the gear stick and handbrake
- can perform an emergency stop that would not cause you any harm or discomfort.

You should check with your insurance company to make sure you are covered to start driving again as they may refuse to meet a claim if they feel you have driven too soon after surgery.

Please do not drive for 48 hours after your anaesthetic or operation and if you are taking painkillers please check with a pharmacist if it is safe for you to drive. If you are not sure about when to resume driving, please visit your GP to check your progress.

Returning to work
When you are able to return to work will depend on what your job involves. A gradual return to work is recommended but not essential, and should start when you feel physically and emotionally ready. Please ask a healthcare professional if you need any more information, advice or support.

Please check with your employer which sickness note they need. It is usually OK to self-certificate for up to seven days but if you are off work for a longer period you will need to see your GP for a certificate. We cannot supply certificates.
Further physiotherapy?
You may need more physiotherapy if:
- you have not regained full movement at your shoulder 3-4 weeks after your operation
- a shoulder restriction is causing you problems in your daily activities
- you have cording
- you are unable to reach the radiotherapy position
- you are having difficulty returning to your normal levels of physical activity
- your energy levels are low or you are suffering with fatigue.

How do I arrange more physiotherapy?
Please ask any healthcare professional to refer you to the oncology physiotherapy team

Alternatively please call the oncology physiotherapy team at Guy’s Hospital, t: 020 7188 9654, Monday to Friday, 9am-4.30pm. If your call is answered by our answer machine please leave a message and we will call you back.
Images in this leaflet
All images used with permission from Breast Cancer Care, and the Physiotherapy Department Guy’s and St Thomas’ NHS Foundation Trust. For more information and support, visit, w: www.breastcancercare.org.uk or call the free helpline, t: 0808 800 6000.

Contact us
If you have any questions or concerns please contact the physiotherapy team, t: 020 7188 9654, Monday to Friday, 9am-4.30pm.

Guy’s and St Thomas’ hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit w: www.guysandstthomas.nhs.uk/leaflets

Dimbleby Cancer Care provides cancer support services for Guy’s and St Thomas’. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy’s, t: 020 7188 5918 e: DimblebyCancerCare@gstt.nhs.uk
Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the clinical nurse specialist or other member of staff caring for you or call our helpline.

**t**: 020 7188 8748, Monday to Friday, 9am-5pm

Your comments and concerns
For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t**: 020 7188 8801 (PALS)   **e**: pals@gstt.nhs.uk
**t**: 020 7188 3514 (complaints)   **e**: complaints2@gstt.nhs.uk

Language and accessible support services
If you need an interpreter or information about your care in a different language or format, please get in touch.

**t**: 020 7188 8815   **e**: languagesupport@gstt.nhs.uk

NHS 111
This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

**t**: 111   **w**: www.111.nhs.uk