

Post- axillary dissection Movement Rehabilitation Exercises

INTRODUCTION

This brochure is recommended as a practical guide to rehabilitation for patients who have undergone breast surgery.

Early mobilisation is an efficient way to achieve complete functional recovery of the arm, having undergone axillary dissection. A daily performing of these exercises combined with physiotherapist's assistance, if necessary, will allow you to achieve an optimal post-surgery rehabilitation.

All exercises and information in this booklet are illustrated in the video: "Programma di fisioterapia post dissezione ascellare" on the website www.ieu.it search for Patient Care: "Rehabilitation, Physiotherapy" (The video has English subtitles)

Sensations after surgery

After surgery you could feel some sensations in the area of the operation.

The area of the wound could give you a sensation of discomfort or tension which is normal after surgery.

Sensations related to the arm, forearm and hand, shoulder and chest

Lesions of little sensory nerves during operation could cause these sensations. They vary a lot among patients and are usually described as: sense of heaviness, lack of sensitivity tingling, sensations of cold drops flowing down the arm and burning. For some women, these sensations are intensified when tired or experiencing climatic changes. A lack of sensation in the area near the armpit is a typical outcome; usually these problems disappear as soon as the nerve fibres regenerate which could require from one week to one year. These outcomes mustn't interfere with daily activities or recommended physiotherapeutic exercises. Motor exercises must be started during the first week following surgery in order to regain complete mobility of the arm and shoulder of the operated side and must be repeated three times a day. During the exercises, your body must keep correct posture (with straight back, symmetrical shoulders, straight neck etc..).

In order to keep correct posture, doing the exercises in front of a mirror can help.

Training the arm every day is important; in fact you should use your arm in all daily activities.

In the morning, after you have done the suggested exercises, you should continue the exercise by using your arm during your personal hygiene routine and then during domestic activity. These activities will become very important so that you can check that the movement is correct, taking the same care and precision you have during the execution of the exercises in this brochure.

Most patients reach normal mobility in six weeks. Two weeks after surgery you could feel stiffer when moving. This is due to the reparation of the scar fibres in the area of the armpit and in this period an extra effort in rehabilitation is required.

Deep breathing during the execution of the exercises will help you to relax.

Sit comfortably and breathe in deeply and slowly to extend the abdomen. Now breathe out slowly, completely blowing out the air.

Repeat this exercise many times.

This technique is useful whilst completing the exercises as it allows you to feel less discomfort and tension in the wound area-

We remind you that a bit of discomfort, tension and pain is normal during the execution of all exercises: if it will be necessary, you can assume a pain killer, but do not stop the training with the exercises. Doing the exercises regularly will reduce these troubles. If these troubles become intolerable, maybe with rising of temperature, so exercises are no more recommended. In this case, we suggest to stop exercises under recommendation from your doctor.

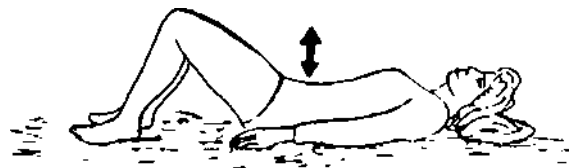
After surgery the latissimus dorsi muscle can lack strength. The muscle's function is to keep the scapula attached to the chest. The complication can be caused because of a "stupor" of the thoracic nerve, the muscle's strength will come back in approximately 6 months of rehabilitation. The movements of the upper limb will be normal while the patient is lying on his back, because the scapula is kept in her position by their body weight. For these reasons patients with this problem are suggested to execute just the first 3 exercises, and after hospital discharge keep doing exercises with the supervision of a physiotherapist. The physiotherapist staff will evaluate whether the patient has this problem during your stay at the hospital.

REHABILITATION PROTOCOL

Exercise 1: "Breathing Technique"

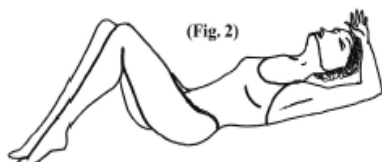
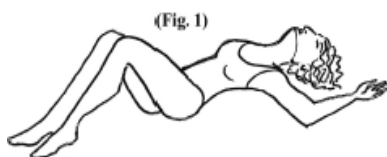
Lie down on the bed, with your arms by your sides and bent knees. Breathe deeply and slowly through the nose, raising the abdomen. Then breathe out slowly through the mouth, completely emptying the lungs and lowering the abdomen.

Continue this exercise for some minutes.



Exercise 2: "Open and Relax"

Lying down on the bed with bent knees, bend your arm and touch your shoulder with your hand. Then extend your arm keeping the contact of your elbow with the bed until you feel a tension in the area of the chest or armpit (fig.1). Hold the outstretched position relaxing the muscles of your arm and shoulder, using the breathing technique for 30 seconds. Then, if the tension is reduced, continue the opening movement until you tension once more and hold for 30 seconds more (fig. 2). Return to the starting position.



Repeat 5 times.

When drainage will be removed, do the exercise without pillow under the head to increase slightly the difficulty of the exercise.

Goal of the exercise: elbow totally straight and arm close to the ear.

Exercise 3: “Getting up opening and closing the fists”

Lying down on the bed with bent knees, with your arms by your sides.

Raise your arms slowly until reaching a vertical position. Then open and close your fists 5 times and return to the starting position

Repeat 5 times.



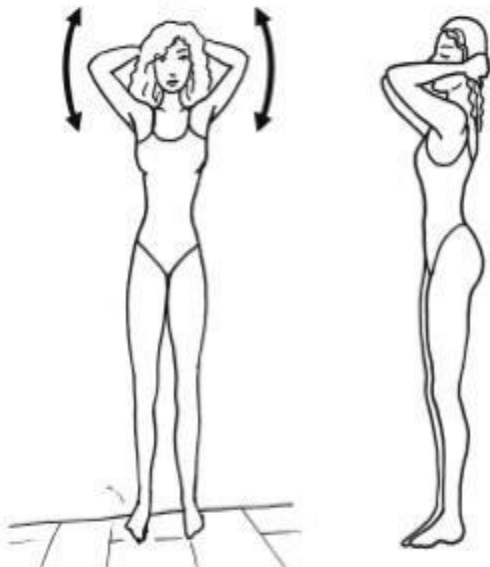
Exercise 4: “Squeeze and Stretch”

From standing position or sitting position with your feet fixed on the floor, intertwine your fingers

Bring your arms up slowly over the top of your head and reach your the neck. Then move your elbows apart slowly and bring them back again (if you feel any discomfort in the area of the wound, maintain the position and start the breathing exercise: breathe in deeply through the nose and breathe out slowly through the mouth). The first time you perform the exercise might not manage to reach the final position, but as you repeat the exercise you will improve your range of movement. Rise again your hand from the neck to the head, slowly, then return to resting position. Repeat 5 times.

Goal of the exercise: touch the wall with both elbow.

Be careful: do not arch your back and keep your neck straight



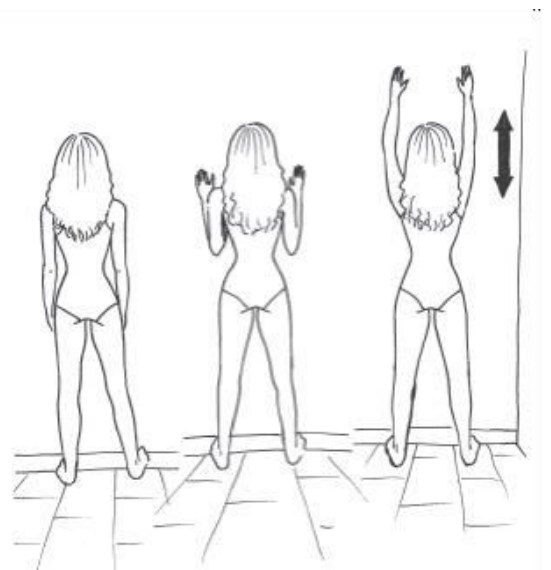
Exercise 5: “Climbing the wall from the front”

Come close to the wall by about one span, hands at shoulder height and use your fingers to “climb” the wall with both hands in parallel. Reach the maximum height you can, getting close to the wall with your feet. Hold the position for a few seconds. Then return to the starting position.

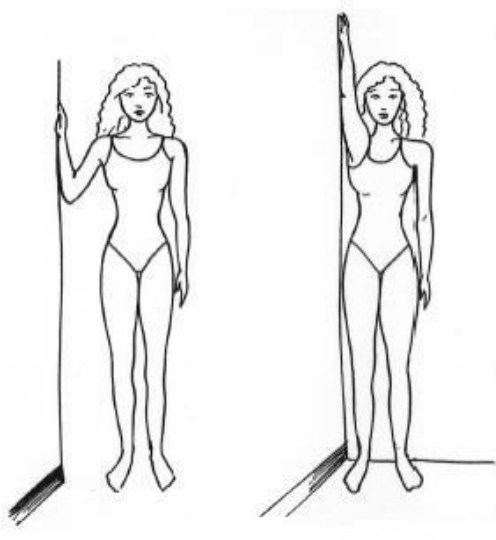
Repeat 5 times.

Goal of the exercise: reach the same level with both hands.

Be careful: do no arch your back



Exercise 6: “Climbing the wall from the side”



You will need a piece of adhesive tape to do this exercise. Standing with the un-operated side against the wall by about three spans, place your hand on the wall at shoulder level and use your fingers to climb the wall, stretching your arm and getting as close as possible to the wall.

Mark the highest point you can reach on the wall with the tape. Now do this exercise in the same way, with your operated arm, trying to get as close as you can to the tape.

Now move away from the wall and slide down with the hand to the shoulder level.

Repeat 5 times.

After discharge

These exercises need to be done regularly once a day (3 repetitions per exercise) until your drainage is removed. Successively they must have to be done 3 times a day (5 repetitions per exercise) for 6 weeks, until you reach a complete recovery, which should be within two weeks since after the removal of the drainage. If this doesn't happen, contact a rehabilitation center. During radiotherapy treatment it is still necessary to perform the exercises described in this brochure, once a day for two months, in order to keep the elasticity of the radiated tissues, to resolve the functional limitations of the arm after surgery and to avoid joint stiffness and lymphatic stasis.

If you encounter any problems, contacting a rehabilitation center is advised to avoid worsening any limitations of movement.

Team of physiotherapists are on hand to receive patients for evaluations or treatment for a fee. The phone number to book an appointment is +390257489747 or by mail (last page).

Fibrosis

Despite performing the exercises sometimes it could happen that some “fibrotic cords” could form.

These cords could be seen during the abduction of the shoulder and extension of the elbow and need to be treated as soon as possible by a physiotherapist to prevent them from growing and hardening. Take a pain killer one hour before this procedure.

During your stay in hospital, you receive a self-assessment questionnaire (“STAWS 2.1”) which helps you to assess whether you have fibrosis or not.

Lymphedema

“Lymphedema” is a swelling of the hand, forearm or arm that could appear on the operated side.

Axillary dissection is a surgical technique in which muscles, vascular bundles and nerves are preserved, decreasing the chances of lymphedema dramatically.

Precocious mobilization and rehabilitation exercises are excellent prevention practices against lymphedema which can also be avoided through taking some precautions, some of which should be taken during the first 6 weeks post-surgery and others in the following period.

During the first six weeks after surgery, collateral lymphatic vessels should activate, so it's important not to tire the arm with heavy activities (washing windows or floors, lifting weights) or doing repetitive activities (ironing or using PC over long periods). During the first 3-4 week, avoid driving. If you can't avoid it, consider a 5 minute stop every 30 minutes of consecutive driving. Trying, during the 5 minutes stop, to release arms, shoulder, neck with rotation and lateral flexion movements.

You can also use a pillow to support your arm so that when you are lying, to aid venous drainage.

It's also important to keep your arm from injuries by not lifting very heavy objects which you are not used to. For this reason, 6 weeks after surgery it's important to start a gradually strengthening of the arm through lifting light weights (see next chapter) or swimming (if not forbidden by physician), to accustom your arm again to the daily activities you were used to do.

Furthermore, there are some recommendations that you should consider for life:

- The slowing of lymphatic drainage that could happen after axillary dissection could predispose the area to infections, so we advise you to be aware against wounds, stings, pricks and burns. In case of injury, thoroughly disinfect the area immediately. If you have an infection, your doctor must treat it through an antibiotic therapy.
- Avoid to carry bags for long ways with your arm along your body, keeping the weight. It's allowed to bring weight for short ways (for example to bring garbage to trash container)
- When wearing a bra, it should not be tight on the ribs or on the shoulder: if the skin underneath shows signs of pressure (which indicates difficulty of lymphatic drainage toward collateral vessels) use a bra with wider straps or put a soft pad between the skin and the strap. If you can't find a bra of the right size on thorax, you can buy a hook to increase the circumference
- Avoid rings, tight watch and bracelet which create signs of pressure. Also avoid giving blood samples or make intravenous therapy on the operated arm. If necessary, use the other arm.
- If you are fond of tanning, use a sun cream with a high SPF to avoid getting burnt.
- Use protective gloves while gardening, to avoid injuries of the skin.
- Use moisturizing cream on operated arm to keep it hydrated
- Practicing regularly global physical activity is recommended; for example yoga, nordic walking, swimming and pilates. These kind of activity facilitate lymphatic drainage.
- Follow a correct alimentation to avoid obesity
- Wait 4 weeks after surgery to shave axilla. Then use an electric razor; other instruments could injury the arm.

Treatment of lymphedema consists of an association of different decongestive therapies: manual lymphatic drainage, multicomponent bandage, therapeutic exercise and final use of elastic compression garment.

Sometimes it's useful to associate intermittent pneumatic compression therapy, which must not be the only treatment.

If you see your arm swelling, please contact physiotherapy service (last page).

If the swelling shows suddenly and associated to pain, redness, warmth and sometimes fever, contact a doctor, to evaluate the presence of infection or inflammation and the necessity of assuming drugs.

Start the strengthening of the arm six weeks after the completion of the drainage. This should be continued for 4 weeks, every other day, starting with ½ kilo weights and continuing on to 1 kilo weights. The weight (which could be a half litre bottle of water and then a litre bottle of water) should be raised keeping the arm straight: ahead, behind, on to the side and upward (for the last exercise, you have to bend the arm, touch the shoulder with the hand and then rise up). Every exercise has to be done in 3 sets of repetitions, with each set made up by a variable number of repetitions to a maximum of 10. When you are able to do 3 series of 10 repetitions for each movement, increase the work by progressing to the 1 kilo weights. Instead of using weights, to reinforce the arm, you can also swim, again gradually increasing the workload. The most important general rule about strengthening is that the exercises should cause tiredness of the arm but not pain.

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