

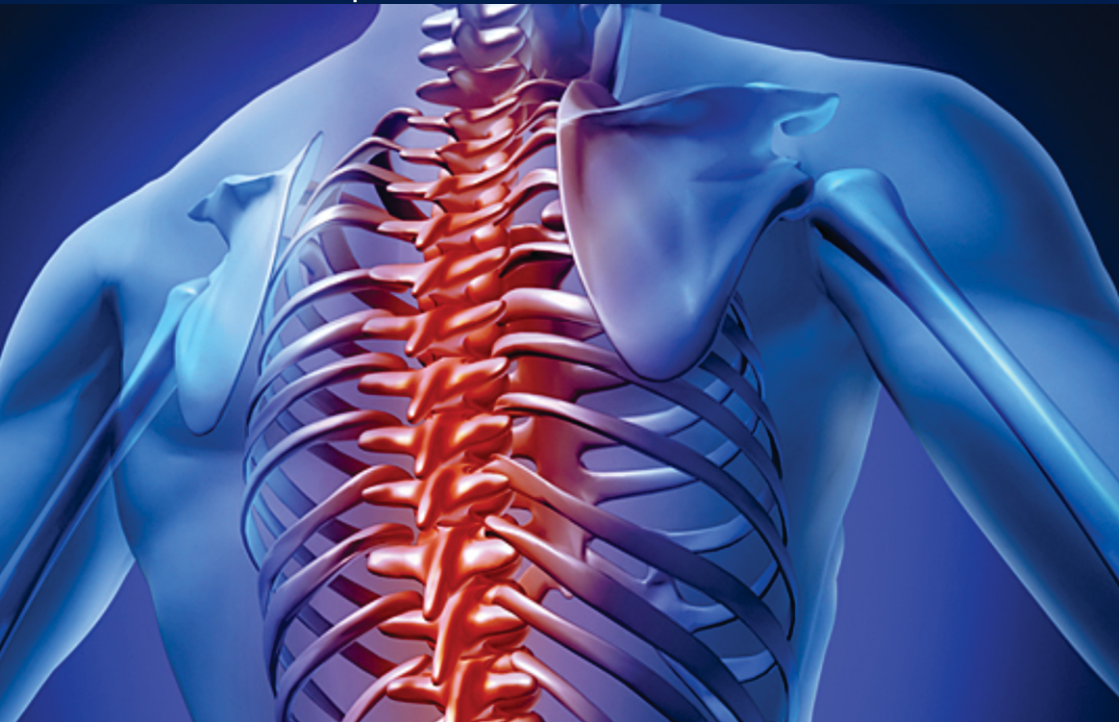
**Kathleen
Zondagh**



PHYSIOTHERAPY

Thoracic Booklet

In association with Pretoria Spine



B.Physt (pret) Practice no: 0383619

Groenkloof Hospital

Rm 302, Medical suite

Cell: 082 307 9162/Tel: 012 346 4449

Introduction

The practice will provide you with post-operative instructions, exercises, assistance and general information pertaining to your stay in hospital and your recovery after surgery. Please read the following information pack provided. Any questions or concerns that you may have will be addressed. Please do not hesitate to call the physiotherapist if there are any queries about anything.

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Surgical Procedures

Discectomy:

Is performed when the intervertebral disc has herniated or torn. It involves removing the protruding disc, either a portion of it or the entire disc that is placing pressure on the nerve root. The disc material which is putting pressure on the nerve is removed through a small incision that is made over that particular disc.

Laminectomy / Decompression:

In cases of spinal stenosis or disc herniation, laminectomies can be performed to relieve the pressure on the nerve. During such a procedure, the surgeon enlarges the spinal canal by removing or trimming away excessive lamina (bone) and soft tissue which will provide more space for the nerves.

Spinal Fusion:

A spinal fusion is surgery that is done to link together two or more vertebrae therefore eliminating the motion that occurs within that portion of the spine. As part of the process to perform a spinal fusion, instrumentation will be inserted. This means that your surgeon will place metal within the spine to hold the vertebral bones together. In an attempt to stimulate bone growth between vertebrae possible usage of extra bone from the pelvis (auto graft), bone chips from a donor (allograft), or manufactured bone substitute may be used. Once new bone forms, the vertebrae will be fused together. An anterior or posterior approach may be used.

Scoliosis Surgery:

This is indicated in curvatures greater than 50 degrees. The posterior approach to scoliosis surgery is done through a long incision on the back of the spine, the entire length of the thoracic area. The spine is instrumented, rods are used to reduce the amount of curvature and a bone fusion performed. The fusion process usually takes about 3 to 6 months, and can continue for up to 12 months. For patients who have a severe deformity and/or those who have a very rigid curvature, another procedure may be required prior to this surgery. A surgeon may recommend an anterior release of the disc space (removal of the disc from the front), which involves approaching from the front of the spine.

Possible Complications

Immediate post op complications:	Long term complications:
<ul style="list-style-type: none"> - Lung complications - Excessive blood loss - Wound infection - Spinal Cord damage - Blood clot (DVT) - CSF (Cerebro Spinal fluid) leakage 	<ul style="list-style-type: none"> - Non-fusion of vertebrae - Adjacent level degeneration - Disc degeneration - Instrumentation failure

What to expect in hospital (Post operative)

- You will be in high-care for the day and night of the surgery
- You will have a drain in-situ, a catheter and a drip (CVP Line) from surgery
- An UWD (under water drain) may be inserted if a thoracotomy has been done
- The physiotherapist will come twice a day from the first day after the surgery and every day after that to assist you with circulation/breathing exercises and mobilisation
- The drain will be removed once it stops draining (usually on the 3rd day)
- The catheter will be removed once you have mobilized yourself independently
- The drip will be removed on the Doctor's instruction
- A brace might be needed depending on the surgery
- You might feel light-headed when standing the first time- this is normal

General advice for the hospital and at home

When going home:

Recline front passenger seat (>45 degrees) so that you are comfortable and lying down

If a brace has been prescribed it is to be worn when mobilising (walking) for 6 weeks

NB. Watch out for pain, swelling or redness in the calf muscles (possible DVT)

Mobilising/walking:

Wear flat, non-slip shoes – no high heels

Don't stand for too long – keep moving

If standing lift the heel of 1 foot slightly or rest it on a ledge – this straightens the back

Sitting/working:

Sitting should be limited to 10 mins while eating or going to the toilet

Sit on a high chair with a supportive back

Concentrate on relaxing your shoulders at all times

Sit in a comfortable chair with head support

Never sit and work or watch TV for more than half an hour at a go – get up and walk around in between

Sit straight in front of the TV when watching (not at an angle)

The TV or computer should be eye level

When reading/doing needlework etc, support arms and elbows and lift the object to a 45 degree angle

When at a desk it must be elbow height

The Orthotist can arrange a raised toilet seat for you if necessary – Avoid constipation!

When sleeping:

Sleep on your side or back

Place the pillow between your ear and shoulder and not under your shoulders

If sleeping on your back use only one pillow under the head and put a pillow under your knees

Don't sleep on your stomach

Turning/ getting out of bed:

When turning, keep your shoulders and hips in line, they must move as one (log rolling)

Cross your arms and roll by kicking off with your leg and pulling with the opposite arm if necessary

Turn to the side that you find most comfortable

Put your legs over the side of the bed and push yourself up with your arms

Don't stand up immediately- you may be a bit light-headed



Bathing/showering:

Shower rather than bath

Make sure your wound is covered with a water-proof dressing

If the dressing gets wet please change it

Avoid hot water when showering, you may still feel light-headed

Be very careful not to slip when showering

Always have a chair close by

Driving:

No driving for the first 6 weeks!

Avoid long trips and bumpy roads as a passenger

Things to remember:

Never work with both hands above your head

Avoid sudden movements with your back

Do not pick up heavy objects (>2kg) such as wet washing, shopping bags or children

No vacuuming, sweeping or heavy gardening

Avoid the following sports: horse riding, squash and running

No sport except walking and swimming is allowed for the first 12 weeks

Swimming only after complete wound healing

Sexual activity – after 6 weeks

Only take the medicine that the doctor prescribed

Listen to your body: over-activity will increase the pain.

Returning to work all depends on what type of work you do – consult your Doctor

It is advisable not to smoke as this impedes circulation and retards bone growth

Wound care

The Doctor normally uses absorbable sutures

Occasionally metal staples are indicated

In this case, staples must be removed after 2 weeks

The wound will be dressed with a waterproof plaster

Keep the wound dry at all times

Change the dressing if the plaster gets wet

After 10 - 14 days the wound should be closed, pain free and the bandage removed

Note: Anti -inflammatory medication retards wound healing therefore not advised

Once the wound is completely closed and healed start applying tissue oil to assist in the flexibility of the scar tissue and to prevent keloid formation

Signs of Infection:

Redness, swelling, extreme sensitivity or pain of the wound, continual drainage of foul smelling fluid, fever

Call immediately if infection is suspected

The following exercises must be done 3X a day. If any of the exercises cause pain stop doing the exercise and consult your Physiotherapist.

Exercises

BREATHING EXERCISES

Abdominal Breathing:

Abdominal Breathing:

Breathe deeply in through your nose

Your belly rises as you breathe in – hold for 3 secs

Slowly let your breath out through your mouth (as if you were blowing out a candle) – Hold for 5 secs / Repeat 5x

Huffing/supported cough:

Place a cushion over your stomach and brace by pulling belly button in

Breathe deeply in through your nose then 'huff' the air out

This can be done every time you feel an irritation in your throat or secretions in the lung / Repeat 3X



NB: Breathing exercises are very important for any Thoracic surgery as the lung volume is always compromised.

CIRCULATION EXERCISES

Foot pumps:

Pump both feet vigorously up and down for 1 minute

Circular movements:

Make big circles with both your feet in and then out for 1 minute

Heel slide:

Bend one knee slowly up and then down again

Repeat with the other leg/ Repeat for 1 minute

Isometric contractions:

Static quads:

Straighten both knees and push them into the bed while lifting the heels

Hold for 5 secs

Repeat 10X

Gluts contraction:

Tighten your buttocks muscles

Hold for 5 secs

Repeat 10X

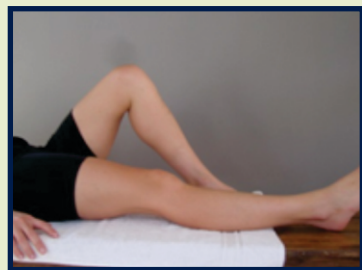
STRENGTHENING EXERCISES (In lying)

Bracing/Trunk Stability:

*In supine with knees bent, place hand under the back
Pull the navel and pubic bone down towards the spine
The pressure against your hand should remain constant
Breath in and out - Hold for 5 secs - Repeat 3X*

Bracing with leg movement:

*Repeat the above
Stabilise and slowly slide 1 leg down and then up again
to starting position
Repeat with other leg - Repeat 3X*



Bridging (Gluts): Brace (as above)

*In supine with knees bent squeeze the buttocks and roll up into a bridge position - lifting the buttocks off the bed
Hold for 5 secs - Repeat 3X*



Back exercise (Multifidus): Brace (as above)

In supine with 1 knee bent and alternate arm resting on chest

Push the straight leg and opposite arm into the bed

Repeat with alternate leg and arm

Hold for 5 secs - Repeat 3X



STRENGTHENING EXERCISES (In sitting)

Static Strengthening:

In a sitting position with the brace on (in front of a mirror)

Put the left hand against your temple

Push slowly against the hand exerting static resistance

Hold for 5 secs Repeat 2X

Now take the right hand against your temple

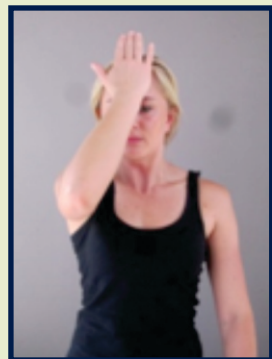
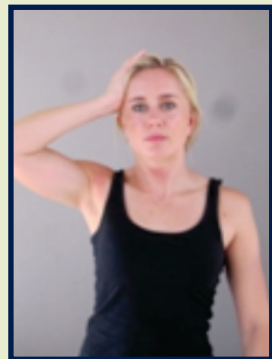
Repeat as above

Put the palm of the hand against your forehead

Repeat as above

Now move the hand to the back of the head

Repeat as above



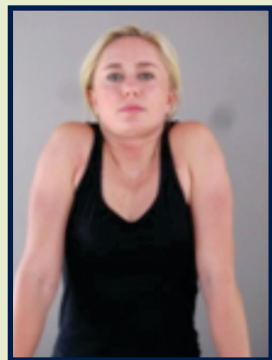
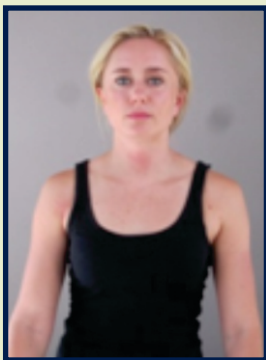
Shoulder girdle exercises:

Contract-Relax:

Pull both shoulders up towards your ears

Hold for 5 secs then relax

Repeat 3X



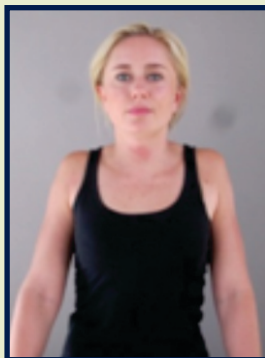
Shoulder rolls:

Make big circles with both shoulders

Move forward and up then back and down

Repeat 10X

Reverse direction



Scapula Stabilization:

In sitting, pinch shoulder blades together and then pull them down to the small of the back

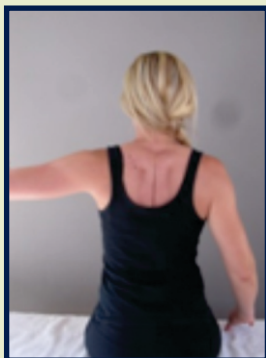
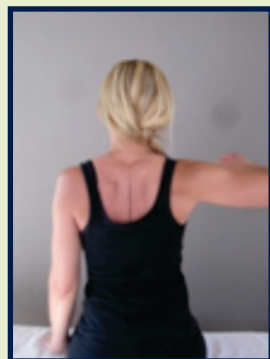
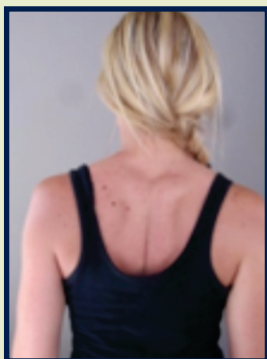
Maintain this position

Slowly lift 1 arm to 90 degrees then back down

Repeat with the other arm

Then lift both arms simultaneously to 90 degrees. Repeat 3X

Note: Scapula position must be maintained



STRETCHES

Neural tissue stretch:

Standing with shoulder to the wall, extend your arm to place hand flat against the wall

Fingers pointing upwards and wrist totally flat

The shoulder must remain down and elbow straight

Slowly walk fingers backwards until a stretch is felt

Hold for 10 secs

Repeat twice

Repeat on the other side



Shoulder/Thoracic stretch:

Wrap arms around chest – as if to hug yourself

Then depress/pull shoulders down towards your belly button

Hold for 10 secs Repeat 3X

