

**Kathleen
Zondagh**



PHYSIOTHERAPY

Lumbar Booklet

In association with Pretoria Spine



B.Physt (pret) Practice no: 0383619

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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, and there will be no further movement between those segments. An anterior or posterior approach may be used.

Possible Complications

Immediate post op complications:	Long term complications:
<ul style="list-style-type: none"> - 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 post surgery
- For the first 6 hours you will be nursed lying flat on your back
- You will have a drain in-situ, a catheter and a drip (CVP Line) from surgery
- The Physiotherapist will come twice a day from the first day after the surgery and every day after that to assist you with turning, 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 are mobilizing independently
- The drip will be removed on the Doctor's instruction
- A soft brace will be given to you by the Orthotist and must be worn when mobilizing for the next 6 weeks
- You might feel light-headed when standing the first time- this is normal

General advice for the post-operative care

When going home:

Recline front passenger seat (>45 degrees) so that you are comfortable and lying down (Soft brace must be worn!)

The brace is to be worn when mobilizing for 6 weeks

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

When sleeping:

You don't have to sleep with your brace on

Sleep on your side with a pillow between your legs

If sleeping on your back, make sure you put a pillow under your knees (and not your calves)

When lying on your side, you may not support yourself with your elbows

Don't sleep on your stomach

Make sure the bed is firm and is the correct height for getting in and out of

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



Mobilising/walking:

The brace is to be worn for 6 weeks when mobilising

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

The Orthotist can arrange a raised toilet seat for you if necessary

Note:

Discectomy/Laminectomy pts may start sitting after 4 wks

Spinal fusion patients may start sitting for longer periods after 6 weeks

Bathing/showering:

Shower rather than bath

Do not shower with the brace on

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

Bowel and Bladder care:

It is very important not to be constipated post-surgery

Pts. with chronic constipation can take Movicol

Eat every few hours (the correct high fibre food)

Drink sufficient fluids (2 litres of water/ day)

Frequently walking around to assist bowel movement

Regular usage of Probiotics

On the toilet: Semi-squat position

Sit leaning forward and allow your tummy to bulge and relax.

Use a foot stool so that your knees are above your hips

Don't hold your breath or strain, push while exhaling

Don't ignore the urge to use your bowels.

Take your time when emptying your bowels



Things to remember:

Wear a comfortable long shirt under the brace

Avoid sudden movements and turning directions

Do not pick up heavy objects (>2kg) ie. wet washing, shopping bags, 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

Wash your soft brace when necessary by hand

It is not advisable to fall pregnant within the first year after the surgery

Only take the medicine that the doctor prescribed

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

Don't do anything that causes pain

Returning to work all depends on what type of work you do – consult the Doctor (usually 6 weeks post op)

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

The exercise regime must be continued at home

Wound care

The Doctor uses absorbable sutures (unless otherwise specified)

Occasionally metal staples are used if sutures are contraindicated

In this case, staples must be removed after 2 weeks

The wound is dressed with a waterproof plaster

Keep the wound dry at all times

Change the dressing if it 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 (>39 degrees)

Call immediately if infection is suspected

Weaning off the brace

After 6 weeks you may progressively start taking the brace off

This should happen over a period of 10 days

When your back feels tired you should put the brace back on

If you are doing any new activity ie. Driving - wear your brace

If you have any pain put the brace on again and rest

Follow the basic guidelines in the table below:

Day: (post 6 wks)	Morning:	Midday:	Evening:
1-2	1 hour	1 hour	1 hour
3-4	2 hour	2 hour	2 hour
5-6	3 hour	3 hour	3 hour
7-8	4 hour	4 hour	4 hour
9-10	5 hour	5 hour	5 hour

Please follow the exercise regime given. The 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:

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



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 (1 leg at a time)

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

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

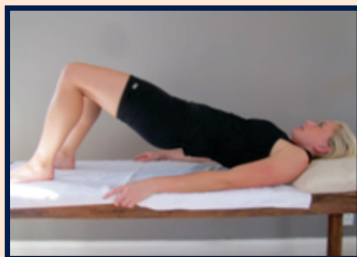
Bracing with leg movement:

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



Pillow squeeze: Brace (as above)

In supine with both knees bent, position a pillow between knees and hold it with both hands

Pinch buttocks, squeeze the pillow with legs and 'pull' the pillow with your hands

Now roll up and lift your head slightly - Make sure chin is tucked in

Hold for 5 secs - Repeat 3X



STRETCHES

Neural tissue stretch (SLR):

In supine: With both legs bent, cross 1 leg over the other so that the top leg is supported

Slowly straighten the knee until a stretch is felt

Then move the foot up and down 10X



Neural tissue stretch:

In side lying: Bend both legs at the knee and hip to 90 degrees

Slowly straighten the knee of the top leg until you feel a stretch

Move the foot up and down 10X

Repeat Neural stretch 2X and repeat with alternate leg



Lower back stretch:

In supine: Bend the leg over the other

Push the knee down while keeping the opposite shoulder on the bed

Hold for 15secs - Repeat x3

Do it with both legs



EXERCISES FOR PAIN RELIEF

Pelvic tilt exercise:

Gently pinch the buttocks and push your back flat against the bed

Now arch your lower back and stick your stomach out

Repeat 3X or when necessary



