

## Home care instructions after lumbar fusion

### Overview

Spinal fusion is surgery to permanently connect two or more vertebrae in your spine, eliminating motion between them.

*Why it's done?*

Spinal fusion permanently connects two or more vertebrae in your spine to allow adequate decompression of the nerves, improve stability, correct a deformity or reduce pain. Your doctor may recommend spinal fusion to treat the following spine problems:

- Broken vertebrae. Not all broken vertebrae require spinal fusion. Many heal without treatment. But if broken vertebrae makes your spinal column unstable, spinal fusion surgery may be necessary.
- Deformities of the spine. Spinal fusion can help correct spinal deformities, such as a sideways curvature of the spine (scoliosis) or abnormal rounding of the upper spine (kyphosis).
- Spinal weakness or instability. Your spine may become unstable if there's abnormal or excessive motion between two vertebrae. This is a common side effect of severe arthritis in the spine. Spinal fusion can be used to restore spinal stability in such cases.
- Spondylolisthesis. In this spinal disorder, one vertebrae slips forward and onto the vertebrae below it. Spinal fusion may be needed to treat spondylolisthesis if the condition causes severe back pain or nerve crowding that produces leg pain or numbness.
- Herniated disc. Spinal fusion may be used to stabilise the spine after removal of a damaged (herniated) disc.

### *Prolonged Recovery after a Lumbar Fusion*

Despite the name of the surgery, the spine is not actually fused during lumbar spinal fusion surgery. Instead, during the surgery a bone graft is placed in the spine so that two parts of the vertebrae can gradually grow together into one longer bone. The long bone will serve to immobilise the spine at that segment. Screws, cages, plates, and rods may be placed during surgery to stabilise the area while the bone heals and becomes solid, a process that usually takes three months. The bone continues to mature and solidify over a prolonged period, usually for 12 to 18 months after the surgery. Because it is a major surgery and the fusion takes a long time to set up, the recovery period plays an important role in the success of a spinal fusion.

### **Anterior lumbar fusion vs Posterior lumbar fusion vs Lateral lumbar fusion**

There are many ways and techniques to achieve neural decompression and fuse two or more vertebrae. The goal is to achieve this by minimising the risks and maximising the success rate. The spine can be reached through the back, front (abdomen) or even the side but your pathology usually dictates which approach or approaches is the best.

One of the main differences for you will be where the soreness will be located and the time required to “turn the corner”. There is usually much less pain in the back when the surgery is performed through an anterior approach or minimally invasive lateral approach but unfortunately some pathologies can only be addressed correctly through a posterior approach. New minimally invasive techniques help with shorter skin incision, reduced muscle damage and blood loss and earlier mobilisation.

### **Is it normal?**

It is very common during the first weeks post surgery to experience the following:

## **Leg Pain**

The nerves always take some time to recover especially if you had a lot of nerve pain before the surgery. It is very common to experience some lower limb pain 2-4 days post surgery and again after 3 weeks. Usually this pain is less than the pain you had before surgery but in some cases it can be severe and quite stressful. If this happens, Dr Scholsem recommends to reduce your activities and to restart or increase your pain killers. Anti-inflammatories are usually very helpful and in some cases a short course of oral corticosteroids.

Remember that a nerve that has been compressed for many weeks or months will remain slightly irritable for a while. This usually resolves within a matter of weeks but you can experience some funny feelings, pins and needles or pain in the lower limb if you do too much. It is also very common to experience some tightness and muscle spasms in the hamstring muscles.

## **Numbness**

Many patients complain about a "new" reported onset of "numbness" in the area where the pain is now gone following the decompression of the nerve(s). The pain covers up these feelings before surgery and, only after the surgery when the pain is resolved do these feelings start to be noticed by the patient.

Numbness in the leg or foot is often the symptom which takes the longest to resolve taking a few months to disappear or become fairly tolerable. However, sometimes the sensations mentioned above can be permanent.

## **Back pain**

Most patients will experience a dramatic improvement in their back pain following surgery but it will be a slow process. It is unrealistic however to expect it to disappear straight away or even completely. The goal of spine surgery is to alleviate severe disabling, pathological pain. It cannot get rid of normal aches and pains which would be considered non-pathological.

It is very common during the first few weeks to experience pain on the side and quite often below the midline incision. This is usually caused by some mild facet joint or sacroiliac joint inflammation and tends to resolve by itself quickly.

## **Post Surgery Milestones**

### **First Week**

This is still very early days and you will likely experience different sorts of pain compared with before your surgery. Make an appointment with your GP a week post discharge to discuss pain medications and how to gradually reduce them. Dr Scholsem will have sent him a discharge letter explaining your surgery and the pain killers you were taking on discharge. Once you are at home walking is an excellent activity and Dr Scholsem encourages all his patients to walk. Start with short lengths of time then work your way up to 20 -30 minutes of continuous walking four or five times per week. Patients with more severe problems or in older age groups may not be able to achieve this goal. Do not let this concern you but discuss it with Dr Scholsem at your post operative appointment.

Try to avoid sleeping during the day as you will have more difficulty getting a good nights sleep however avoid overdoing it and get plenty of rest. Eat a balanced diet such as fruit, fibre and drink plenty of water. It is a good time to think about making long-term changes to your diet.

Try to minimise your sitting to periods of less than 20 -30 minutes as this will increase the

strain on your back. Changing position frequently will be good for your back for the rest of your life.

Unless specified, do not start any core muscle strengthening exercises before the post operative appointment (usually 4 -6 weeks after surgery) You can ask your physiotherapist for gentle massage and stretching if needed after two weeks.

Most patients feel quite tired after all the stress of the surgery and it is a perfectly normal physiological response called “adrenal fatigue”. Your initial stress reaction to the surgery produces a large rise in cortisol, adrenaline and other adrenal hormones that mobilise your energy, mental and physical resources to take action. Once the stressful events are behind you the levels of cortisol and other adrenal hormones drop making you feel really tired and without energy.

### **Week 2 -3**

You have now progressed quite a lot but hitting a plateau. That is normal. It is normal to experience pain following surgery and many patients experience a few days of strong pain during their recovery, usually around the second or third week post discharge from hospital. Don't stop the pain killers too quickly but when the pain gets better try to slowly reduce the dose. For example, cutting by half the morning dose for a few days then the evening dose before stopping the morning dose. As a general rule, pain killers at this time should only be used at the minimal dose and always favour paracetamol over stronger pain killers.

You may start feeling stronger but remember that the healing process is still at the beginning and do not test yourself yet or overdo it.

### **Week 4 -3 months**

This is the time to get healthy again. See your physiotherapist regularly and most importantly involve yourself in a physical activity. If you had a lot of pain for a long time you have probably lost most of your muscle mass and it will take time to rebuild it again but don't get discouraged. There is not a big difference between physical activities in terms of benefit against chronic low back pain and it is better to do something you like consistently rather than working on your core muscles for a few weeks only.

You may still experience some intermittent pain in the back itself and this may be due to many factors. In the vast majority of cases it will continue to improve slowly but some discomfort can persist to some degree.

Even if your leg pain was better during the first couple of weeks after surgery you may have flashes of pain when you start to become more active. These episodes of pain can be as strong or sometimes even stronger than before surgery. Do not panic and continue taking your pain killers if needed. If you have any doubts or questions, please call Dr Scholsem's office.

### **Managing your Mood, Expectations and Goals**

A successful result after the surgery also depends on a positive attitude and efforts by patients to aid recovery. Your pre operative symptoms may take weeks or longer to fully improve. Generally, symptoms such as pain shooting into the leg improves first. Numbness is often the last symptom to improve and usually can even be slightly worse than before the surgery (do not worry this is normal).

Quite frequently patients experience a brief period of "let down" or depression after surgery. Some may subconsciously have expected to feel better "instantly" even though they rationally understand that this will not be the case. Patients commonly question their decision to have surgery during the first few days after surgery. As the healing occurs, these thoughts usually disappear quickly.

If you feel depressed, understanding that this is a "natural" phase of the healing process may help you cope with this emotional state.

Quite frequently this happens around day 3 and we call it "the third day blues" and again after 3 weeks where you become more active but still are not fully recovered.

So you are feeling better and the discomfort you are now in is nothing compared to what you endured before surgery or perhaps you feel quite the opposite. Many patients have verbalised frustration at not being able to resume normal activities - for example, driving, going back to work or participating in simple activities of daily living. Having to limit and curtail your activities, along with pain and discomfort can leave you with the impression that you will never get better.

Remember your body needs to recover from major surgery. How you take care of yourself in the post operative period will have a direct bearing on the ultimate result. This is the time to take care of yourself rest, eat a well balanced diet high in protein, walk every day if possible, take a more positive attitude and feel good about yourself. It takes a great deal of courage and determination to undergo what you have been through.

### **Here are some additional tips for maximising your recovery:**

#### **Wound Care and sutures**

Your wound will almost always be closed with dissolvable sutures underneath the skin. The wound will be covered with Steri-Strips.

#### *photo*

You may shower as soon as you feel safe to do so. Change the dressing every couple of days for one week and after having a shower if it is wet. Pat the wound dry and keep it clean. Do not apply creams or cleansers to the incision. Do not submerge the incision under water in a bath and avoid going in a pool for 4 weeks.

The surgical dressing should be removed one week after discharge from hospital. The Steri-Strips will peel off on their own in time. If the wound is sensitive or your clothes rub against it, you may apply a clean dry gauze to cover the wound.

Mild swelling around the incision after surgery is normal. You may even notice a slight increase in swelling after activities. This will dissipate in time.

If you have any signs of drainage, fever, redness or worsening swelling around the wound please see your GP straight away or call my office.

#### **Activities**

For the first two weeks following surgery, avoid sitting upright with your back unsupported (such as when sitting at a desk) for longer than 30 minutes at a time. The reason for this is that it puts too much pressure on your lower back and on your disc. You should stand, walk, or lay down for 10-15 minutes before sitting again.

You may sit in a recliner or on a couch with a rolled-up towel or pillow for lumbar support for as long as you are comfortable.

Avoid long car trips. If you have to travel, get out and walk around for ten to fifteen minutes every hour. A reclining position will be most comfortable on longer trips.

NO "BLT" (bending, lifting, or twisting). Do not bend at the waist, lift anything over 5 kg, push, pull or twist until cleared to do so.

House work and grocery shopping should not be done without assistance immediately after surgery. Limit your pushing and pulling activities such as vacuuming, sweeping, mowing, and mopping floors for at least six weeks.

If you feel more pain than usual after an activity, you may have overdone it. Take it a little easier for a few hours.

**Please avoid NSAIDs and smoking**

If you had a fusion, do not use non-steroidal anti-inflammatory drugs (NSAIDs) (e.g., aspirin; ibuprofen, naproxen, diclofenac,...) for 3 to 6 months after surgery. NSAIDs may not only cause bleeding but have been shown to considerably slow bone healing.

Do not smoke. Smoking delays healing by increasing the risk of complications (e.g., infection) and inhibits the bones' ability to fuse.

**Walking:**

You should begin walking short distances immediately after surgery.

Choose a level path for walking. Do not walk on hills.

Start with 10 minutes twice a day, and work up from there. Once you are walking 20 minutes in one session, you can decrease your walk to just once a day. Your goal is 30-40 minutes/day.

Let pain be your guide. What we mean by this is, if you have increased your walking time to 25 minutes from 20 minutes, and you experience severe pain, go back to 20 minutes for a few more days before trying to increase it again.

Walk up and down stairs as your pain allows.

**Lifting:**

No lifting anything heavier than 5 kg for the first 4 weeks after surgery.

Always lift with your legs and not your back. Keep whatever you are lifting as close to your body as possible.

Bend your knees and keep your back straight when picking up small items off the floor.

A “grabber” may be given to you from the hospital and can be useful to pick up objects.

**Sexual Activity:**

Back surgery can interfere with your sex life, but we want you to resume normal relations with your partner as soon as possible after surgery. We recommend avoiding sex for two-three weeks after surgery. Once you have begun the healing process, use the position that is most comfortable. Be sure you communicate your fears and concerns with your partner before you resume sexual relations.