

COMPLICATIONS OF SPINAL SURGERY

With any surgery, there is the risk of complications. When surgery is done near the spine and spinal cord, complications can be very serious. The chance that any of these complications will occur is usually small. This is not intended to be a complete list of the possible complications, but is the most common. Please also note that majority of spinal surgery is not absolutely essential and are performed only for relief of pain. If you can cope with the pain then surgery is not required.

1. ANAESTHESIA COMPLICATIONS

General anaesthesia is where you go to sleep during the operation. Problems during a general anaesthetic may be due to reactions to the drugs used, problems arising from your other medical problems and problems due to the anaesthesia. Please discuss these with the anaesthetist.

2. THROMBOPHLEBITIS

When blood clots form inside the veins of the legs, it is called Deep Vein Thrombosis (DVT). This causes swelling and pain in the leg. This swelling may last permanently. Sometime the blood clot may break free and travel to the lung and cut off the blood supply to a part of the lung. This is called pulmonary embolism (PE) and may cause death. Blood that is moving is less likely to clot. Getting YOU moving is perhaps the most effective treatment against developing DVT. Simply pumping your feet up and down (like pushing the accelerator) contracts the muscles of the calf, squeezes the veins in the calf, and pushes the blood back to the heart. You cannot do this too much! Support stockings, called TED stockings, are also used following surgery. Mechanical compression devices (Flotron) would also be attached to your calf to squeeze the blood back into the heart. There are also medicines which thin your blood. These medicines have their own complications and medical research has not shown any conclusive evidence of its benefit.

3. LUNG PROBLEMS

The lungs produce water. That is why it mists when we blow onto a mirror. After an operation you may be sleepy and it may also be painful to take in a deep breath. This leads to water collecting inside your lungs and causes pneumonia. Coughing and taking frequent deep breaths after surgery helps prevent pneumonia. Getting out of bed, even upright in a chair, allows the lungs to work much better.

4. INFECTION

After any surgery there is a risk of infection. The usual signs of infection are that the wound becomes red, hot, swollen and there is increasing pain. You may run a fever and have shaking chills. The wound may drain yellow pus and may smell bad. Antibiotics are given during the surgery to reduce infection but they do not eradicate infection. Some deep wound infections can be very serious and will probably require additional operations. In the worst cases, any bone graft, metal screws, and rods that were used may need to be removed.

5. SPINAL CORD INJURY / NERVE ROOT INJURY

In any operation on the spine, there is some risk of injuring the spinal cord. Damage to the spinal cord can cause complete paralysis or paralysis in certain areas depending on which part of the spinal cord is affected. This is the most serious risk in spinal surgery. Instead of damaging the spinal cord there is always a possibility of damaging one of the spinal nerves that come out of the spinal cord. This is less disastrous than paralysis but still can be very disabling. In surgery of the neck there may be damage to the nerves supplying the voice box causing hoarseness of voice. Damage to the nerves that control the bowel and bladder may cause a Cauda Equina Syndrome. If this occurs, you may lose the ability to control your bowels and bladder. Sexual function may also be impaired.

6. DURAL TEAR

A thin membrane called dura covers the spinal cord and nerves. Underneath this membrane is a fluid in which the brain and spinal cord float. This fluid is called the cerebro spinal fluid. During spinal surgery a tear of the membrane may occur. This may involve stitching the tear or sealing it with glue. You may also be asked to lie in bed for 3 days following the operation. A spinal headache can result from the spinal fluid leak. A leak can also increase the risk of infection of the spinal fluid - called spinal meningitis. You may also need a second operation to repair the tear in the dura.

7. PERSISTENT PAIN

ONE OF THE MOST COMMON COMPLICATIONS OF SPINAL SURGERY IS THAT IT DOES NOT GET RID OF YOUR PAIN. IN SOME CASES, IT MAY BE POSSIBLE TO ACTUALLY INCREASE YOUR PAIN. BE AWARE OF THIS RISK BEFORE SURGERY. Some spinal operations are simply unsuccessful. Sometimes, the nerves are actually damaged by the pressure and may not recover

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completely. You may also develop scar tissue around the nerves weeks after the operation that causes pain similar to what you had before the operation.

8. **ONGOING BACK PAIN** – The disc is like a cushion between two bony blocks of vertebrae. The structure of a disc is like a jam doughnut. When a jam doughnut is squeezed the jam from the doughnut may come out. In a similar manner an abnormal load on the spine can cause a disc prolapse where the doughy material from inside the disc comes out and presses on the nerve. A discectomy only removes the doughy material that is outside, pressing on the nerve. The rest of the disc (like the bread that is left in a jam doughnut after the jam has been squeezed out) still acts as a shock absorber but much less efficiently. **This less efficient shock absorber may cause continued back pain.**
9. **RE-HERNIATION** – This occurs following discectomy for a prolapsed disc. There is always the chance (about 10-15 percent) that the same disc may herniate again. It is most likely to occur in the first six weeks after surgery, but it can occur anytime. You might need a second operation if this occurs.
10. **HARDWARE FAILURE (occur only when screws / plates / rods are inserted into the spine)** - In many different types of spinal operations, metal screws, plates, and rods are used as part of the procedure to hold the vertebrae in alignment. These metal devices are called "hardware". Sometimes before the bone is completely healed the hardware can either break - or move from the correct position. This is called "hardware failure". If this occurs it may require a second operation to either remove the hardware or replace the hardware.
11. **TRANSITIONAL SYNDROME (occurs only when part of the spine is fused)**
One of the interesting things about how the spine works is that it behaves like a chain of repeating segments. When the entire spine is healthy, each segment works together to share the load throughout the spinal column. However, when one or two segments are not working properly, the neighbouring segments have to take on more load. Over time, this can lead to increased wear and tear to this adjacent segment, eventually causing pain. This is called a transitional syndrome. When a single level is operated on the adjacent level is affected in this manner.
12. **PSEUDOARTHROSIS(occurs only when part of the spine is fused)**
When the vertebrae involved in a surgical fusion do not heal and fuse together it is called Pseudoarthrosis. This is usually associated with pain. A pseudoarthrosis may require more surgery to try to get the bones to heal.
13. **BLEEDING**
The risk of this is greatest in surgery of the spine done from the front. In the lumbar spine sometimes the surgery is done from the abdomen and in the cervical spine surgery may be done again from the front of the neck. Bleeding can be disastrous. It is possible that the originally planned surgery may have to be abandoned due to bleeding. It is possible that extra help from a Vascular surgeon may be sought if the bleeding becomes uncontrollable.
14. **WARM LIMB / RETROGRADE EJACULATION**
There are some nerves in our body which are not under our direct control and they are called sympathetic and parasympathetic nerves. These nerves control the blood flow through different parts of the body, heart rate, movements of the stomach and intestine, sexual function etc. Damage to these nerves can lead to a sensation that one limb is warmer than the other. It may also cause retrograde ejaculation in men where semen instead of coming out goes back into the bladder.
15. **DEATH**
Any major operation has a risk of death. Majority of spinal operations are serious and major. Please note that death during or immediately following surgery though unlikely is possible. The risk may be as similar as the risk of dying in a car accident.

If you have any further doubts at any stage please do not hesitate to discuss them with the staff looking after you.

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