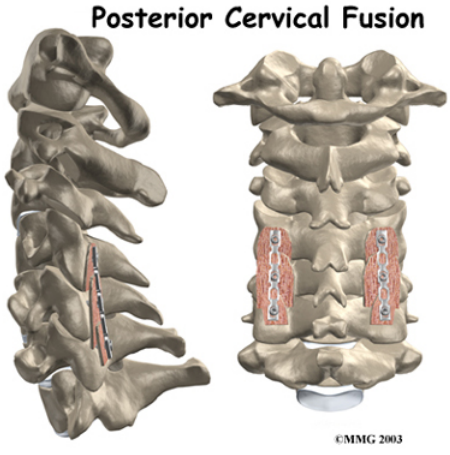
SpineFAQs **Posterior Cervical Fusion**

Why a spine fusion?

In general, spine fusion surgery is recommended for patients with instability of the spine, severe degenerative changes, or for those who are undergoing major spinal surgery that might cause instability afterwards. It is an attempt to stabilize the spine, and to decrease your pain.

What is spinal fusion?

The goal of spinal fusion surgery is to stop the motion between the spinal bones. We accomplish this by some trickery to the body. In effect, we try to 'fool' the body into thinking that there is a broken bone, and encourage healing by creating new bone. This bridging bone will weld together, or 'fuse', the bones, thus stopping motion. Usually we will take bone graft from your pelvis to add to the area for fusion to promote more aggressive bone formation. Occasionally, more bone from the bone bank, called allograft, will be added. Finally, we often use hardware such as metallic screws, plates, rods or wires to assist in the formation of a fusion.



Posterior cervical fusion is also used to line up and hold the neck bones when there's a deformity in the curve of the neck. Normally, the neck lines up with a slight inward curve from the base of the skull to the top of the *thorax* (the chest area). One type of deformity that changes the curve of the neck is called *kyphosis*. This happens when the

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inward curve starts to bow outward. Some people are born with an outward bow in their neck. Kyphosis can also occur when a severe injury compresses the vertebral body into the shape of a wedge. Neck surgeries that weaken the bony ring around the spinal canal can also lead to kyphosis. When kyphosis

is a problem, a posterior fusion procedure may be used to correct the curve and to fuse the bones together once they're in the right position

Why would you use hardware?

The hardware (or instrumentation) acts like an internal splint. It makes the spine immediately stiff, which in the appropriate circumstances will increase the likelihood of a successful fusion. Hardware is not required in all circumstances. I can give you a better idea of why hardware is recommended, and what type I will use.

What are the risks of spine fusion surgery?

As with any operation, especially of the spine, there are risks. Aside from infection or bleeding, the major risks associated with cervical spine fusion include:

- **Failure of fusion** (also known as pseudarthrosis) – This can lead to continued pain, breakage of the hardware, and increasing deformity of the neck.
- **Breakage of the hardware** – Sometimes this needs to be removed an replaced.
- **Pain at the bone graft donor site** - The bone is usually taken from the back of the pelvis above one of your buttocks.
- **Continued neck pain**

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- **Nerve injury** - If hardware is used, there is also a risk of injury to the nerves (and paralysis), blood vessels or spinal fluid sack with insertion of the hardware.
- **Disease transmission** - If allograft bone is used there is a tiny (less than one in a million) risk of disease transmission such as HIV or hepatitis.

How long will I be in the hospital?

While everyone is different, on average someone who undergoes cervical spine fusion surgery is usually in the hospital for 2-5 nights. You will usually be allowed to be up and walking the day of your surgery. Most patients will need a brace for a while after surgery.

What happens after I'm discharged?

Once discharged from the hospital, most patients will be encouraged to walk. You will be restricted from lifting, bending, and twisting for up to 3-6 months. It takes a minimum of 3 months for the fusion to 'take', and may be up to a year or more before the fusion is solid. I will follow the progress of your fusion regularly with exams and x-rays.

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