

The Spine Surgery Treatment Grid

Two factors determine the nature of your particular spine problem. One is the anatomy. Is there a clearly identifiable source of your pain with corresponding symptoms or is the origin unclear (non-structural)? The second is the state of your nervous system. Are you calm and dealing with your usual life stresses or are you feeling overwhelmed? If you are feeling stressed for more than three months, the body's chemistry is on "high alert" and affects every cell in your body, including the speed of your nerve conduction. [1] You will not only experience more pain, your capacity to cope with it is compromised.

There are four categories of patients:

- IA—[Structural lesion](#), calm
- IB—Structural lesion, stressed
- IIA—[Non-structural lesion](#), calm
- IIB—Non-structural lesion, stressed

An overview of how this looks is presented in this grid:

	Calm – A	Stressed – B
Structural Lesion - I	IA Surgery an option Simple prehab	IB Surgery an option Structured prehab
Non-Structural Lesion - II	IIA Surgery not an option Simple rehab	IIB Surgery not an option Structured rehab

The implications of this grid are important in making your decisions. It will be the basis of the discussions regarding the role of surgery in your care. I have found out that if a patient is not under a lot of stress then outcomes are consistently positive if a structural problem is surgically addressed (IA). However, if that same person is in the middle of a major personal or professional crisis, then the results are less predictable (IB). Surgery may still be helpful but other factors need to be addressed.

Patients who aren't under a lot of extra stress and are experiencing pain without a clear source (Type IIA) simply do not want or request surgery. Why? It is just pain that they can tolerate until it resolves, and it usually does.

The biggest problem we have in spine surgery is performing surgery on people who are stressed and the [source of pain can't be identified \(IIB\)](#). Since [mental and physical pain](#) are processed in a similar area of the brain with the same chemical response of adrenaline and cortisol, the pain is often intense and people become desperate. First of all, surgery is never indicated without identifying the exact cause of symptoms. So the chances of success are already low. Then you add in the other factors that have been shown to adversely affect surgical outcomes (poor [sleep](#), [anxiety](#), [depression](#), fear avoidance, poor physical conditioning, smoking, [duration of pain](#), younger age), the chances of an operation being helpful are not only low, patients often get worse. [2] It is surgery being performed in this group that is creating a lot of ongoing pain and disability. If you fall into this group, the pain is solvable but not with a surgical procedure.

[Do You Really Need Spine Surgery? Take Control with Advice from a Surgeon](#) provides the information you need in enough detail for you to make a better decision.

References

1. Chen, X et al. "Stress enhances muscle nociceptor activity in the rat." *Neuroscience* (2011); 185: 166 – 173.
2. Perkins, FM and H Kehlet. "Chronic pain as an outcome of surgery: A Review of Predictive Factors." *Anesthesiology* (2000); 93: 1123 – 1133