
Failed Back Syndrome

Failed back syndrome is a general term that refers to chronic severe pain experienced after unsuccessful surgery for back pain. Surgery for back pain is conducted when there is an identifiable source of pain-usually to decompress a pinched nerve root or to stabilize a painful joint. However, back pain can have a number of causes and accurate identification of a source of pain is complicated; often symptoms do not correlate well with x-rays or magnetic resonance imaging (MRI) scans. As a result, diagnosis and patient selection for surgery are essential.

Causes

Failed back syndrome can have any number of causes. For example, the original cause of the pain can recur or there may be complications during surgery. The nerve root causing the pain may be inadequately decompressed, joints or nerves may become irritated during the surgical procedure, or scar tissue may compress or bind nerve roots. In addition, nerve damage, either prior to surgery or during the procedure, will not heal and can contribute to ongoing pain. In some cases, nerves may regenerate to some extent, but even this can cause pain if the regeneration is abnormal. Inadequate or incomplete rehabilitation and physical therapy, especially in patients whose back muscles are deconditioned (out of shape), can cause chronic pain as well.

Spinal fusion surgery, a procedure used to stabilize joints in the spine, usually is very successful, but also carries the risk of failed back syndrome. For this procedure, hooks, rods, and screws are used to fix the spine, and then bone taken from another part of the body or from a bone bank is implanted to encourage bone to grow across the joints. Following surgery, there is a chance that the metal implants will fail, or the bones may fail to fuse for unknown reasons. Also, the fixing of one or more spinal joints may increase the strain on nearby joints. Any of these conditions may lead to ongoing pain.

Symptoms

The pain associated with failed back syndrome varies depending on the surgical procedure and the original condition. The pain, which ranges from a dull ache to sharp stabbing pain, may be localized to one region of the back or may extend to the legs.

Diagnosis

The diagnosis of failed back syndrome is the same as the diagnosis of other forms of back pain. X-rays, MRI scans, and computed tomography (CT) scans are used to visualize the structures of the back to identify the source of the pain. Minimally invasive spine procedures, such as epidural injections of steroids or pain medication, also may be used to isolate the source of the pain and provide some pain relief to facilitate rehabilitation.

Treatment

Treatment of chronic pain and failed back syndrome is difficult. It is important to obtain an accurate diagnosis before any surgery, especially surgery on the back. If a source of pain still can be identified after a first surgery, corrective surgery may be attempted again. Ongoing physical therapy is important and should be a part of any surgical treatment plan.

Other treatment options are available for chronic pain patients who have exhausted conservative treatment strategies and no

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longer are good candidates for surgery. Neurostimulation involves the implantation of a battery pack and stimulating electrodes. The electrodes stimulate the pain-causing nerves to block the pain signals going to the brain. Another treatment alternative is intrathecal drug delivery. For this procedure, a small pump and tube are implanted in the body to deliver small, regular doses of pain medication directly to the space surrounding the spinal cord. Like other surgical procedures, these implantation procedures carry the risk of infection and bleeding.

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Columbia University College of Physicians & Surgeons

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