

Microdiscectomy

A *microdiscectomy* is typically performed in the case of a *lumbar herniated disc*. The center of the disc protrudes through the outer ring (annulus) and subsequently puts pressure on a nerve, causing pain to radiate down the patient's leg and into the foot. In this procedure, a small portion of the bone over the nerve root and disc material from under the nerve root is removed to relieve the pressure and provide room for the nerve to heal.

A microdiscectomy surgery is more effective for treating leg pain (radiculopathy) than for lower back pain. The compression on the nerve root can cause substantial leg pain, and while it may take weeks or months for the nerve root to fully heal and for any numbness or weakness to get better, patients normally feel relief from leg pain almost immediately after a microdiscectomy surgery.

Who should have this surgery?

This procedure is usually recommended for patients who have experienced leg pain for four to six weeks and who have tried conservative treatment (such as oral steroids, epidural steroid injections, NSAID's, and physical therapy) without successfully relieving the pain. However, it is not advisable to wait too long before having this surgery, because the results are not as good if the surgery is postponed more than three to six months. Besides time, one needs to also factor in the level of the pain and the amount of disability the patient is experiencing. If the symptoms are mild, a longer course of conservative treatment may be reasonable, whereas if the symptoms are severe more immediate surgery is reasonable.

Microdiscectomy success rate

A recurrent disc herniation may occur directly after back surgery or many years later, although they are most common in the first three months after surgery. Recurrence rates after a patient has a disc herniation are between 5 and 10%. If the disc does herniate again, generally a revision microdiscectomy will be just as successful as the first operation. However, after a recurrence, the patient is at higher risk of further recurrences (15 to 20% chance). If herniation continues to recur, a fusion procedure might be considered.

Recurrent disc herniations are probably due to the fact that within some disc spaces there are multiple fragments of disc that can come out at a later date. Through a posterior microdiscectomy approach, only about 5 to 7% of the disc space can be removed and most of the disc space cannot be seen. Also, the hole in the disc space where the herniation occurs (annulotomy) probably never closes because the disc itself does not have a blood supply. Without a blood supply, the area does not heal or scar over. There also is no way to surgically repair the outer portion of the disc space (the annulus).

Usually, a microdiscectomy procedure is performed on an outpatient basis (with no overnight stay in the hospital) or with a one night stay in the hospital. Post-operatively, patients may return to a normal level of daily activity quickly. The success rates for pain relief are between 90 and 95%.

Following surgery

Some surgeons restrict a patient from bending, lifting, or twisting for the first six weeks following surgery. However, since the patient's back is mechanically the same after a microdiscectomy, it is also reasonable to return to a normal level of functioning immediately following surgery. There have been reports in the medical literature showing that immediate mobilization (return to normal activity) does not lead to an increase in recurrent lumbar herniated disc. Although a patient may be technically allowed to resume their normal activities immediately, they should expect reduced activities due to incisional discomfort for one to three weeks.

Following a microdiscectomy surgery, a program of stretching, strengthening, and aerobic conditioning is recommended to help prevent recurrence of back pain or disc herniation.

THE SPINE CENTER

AT THE NEWYORK-PRESBYTERIAN HOSPITAL – WEILL CORNELL MEDICAL COLLEGE