This guide is intended to answer your questions about vertebral body reconstruction and help you prepare for the procedure.

What is it for?
Spine fractures are often caused by osteoporosis, a disease which makes the bones brittle and weak.

Vertebral body reconstruction is primarily a treatment for the pain caused by fractured vertebrae (the bones of the spine). It is designed to correct some of the deformity of the fractured vertebral body, thereby enabling improvement of other functions.

What is Vertebral Body Reconstruction?
This spine intervention is often an outpatient procedure performed by a doctor such as an Interventional Radiologist. The procedure is performed under sterile conditions in a fluoroscopy suite. Using image guidance (fluoroscopy or CT), the doctor places a special access needle into the vertebral body through a small incision in the skin of the patient's back. In vertebroplasty, specially formulated acrylic bone cement is then injected slowly through the access needle into the vertebral body under image guidance. In kyphoplasty, a medical balloon device is temporarily inflated within the fractured bone in order to reduce the fracture prior to cement administration. In structural kyphoplasty special plastic wafers are injected into the vertebral body in order to restore the height of the compressed vertebra prior to cement injection. The bone cement hardens quickly, stabilizing the vertebral body and relieving the pain caused by the micromotion of the fracture. It can also prevent further collapse of the vertebra and prevent further deformity. In many cases, vertebral body reconstruction can provide correction of the deformity caused by the vertebral fracture, which in turn enables other functional improvements.

Most patients are sedated with intravenous anesthesia or conscious sedation, so recovery time is relatively short and many risks associated with open surgery are eliminated. Most patients are able to go home within a few hours after the procedure; many are able to resume regular daily activities within 48 hours.

Will it hurt?
Most patients receive intravenous sedation to help them remain completely relaxed and still during the procedure. A local anesthetic will be used where the access needle is placed in order to minimize any pain.

What should I do?
Before the procedure:
The night before your procedure, do not have anything to eat or drink after midnight. If you take daily medications, take them with a small sip of water. Notify the Radiologist if you have been taking medications, such as blood thinners, that affect your blood's ability to clot.

Bring your spine x-rays with you to your appointment. Plan to spend at least half a day, beginning at the time of your appointment. Arrange for transportation home from the hospital following your procedure.

During the procedure:
You will need to lie face down on the procedure table for about an hour (or more, if you are having more than one level treated). The radiology technologist and other assistants will help position you comfortably for the procedure. Once you are positioned correctly, you will need to remain still throughout the procedure.

Following the procedure:
You will be kept in the recovery area for observation for up to 3 hours following your procedure.
Have someone else drive you home from the hospital. Plan to rest until the next day; avoid strenuous activity for two or three days following the procedure to give your body a chance to recover. As the painful fracture heals, you may gradually return to daily activities.

It is important that you follow a course of treatment for the primary cause of the fracture (osteoporosis, etc.) to prevent further fractures. Most patients benefit from physical therapy in order to improve core body strength, balance and gait. Consult the Radiologist if you do not already have specialists for these critical elements of your long-term treatment or if you have further questions about vertebral body reconstruction.

When will I feel better?
Most patients report significant improvement in their pain within 24 to 48 hours after the procedure; pain relief typically continues to occur over a few days following vertebral body reconstruction procedure.

Is it safe?
Vertebral body reconstruction has been proven to be a safe and effective treatment for painful vertebral fractures. Success rates of 80-95% have been reported in medical literature over the past 15 years. Complication rates are low, especially for osteoporotic fractures (<1% major complications). The Radiologist will discuss the benefits, risks, and alternative treatments when obtaining your informed consent for the procedure.

What else should I do?
It is critical that you establish and follow a course of treatment for the underlying condition that caused the fracture in your vertebra. You are very likely to have another fracture (in your spine, hip, wrist, rib or elsewhere) if your current fracture was caused by osteoporosis that continues to go untreated. Similarly, other diseases that lead to vertebral fractures must be treated to prevent further fractures. Your physician can help you identify an appropriate team of care givers to assist you with your medical needs as well as improvements in your daily activities.

Are there other options?
Conservative treatment options, including bed rest, medication, and bracing your back, may provide relief from the pain of your fracture. However, most patients referred for vertebral body reconstruction have already tried these methods without satisfactory improvements in their pain. Vertebroplasty and a similar procedure, kyphoplasty, have been shown to be more effective than conservative treatments for painful vertebral fractures caused by osteoporosis and other diseases. In some cases, patients with multiple fractures may benefit from having a combination of the procedures to treat each fracture most effectively. The Radiologist will evaluate your specific needs to determine the best treatment for you.

To schedule an appointment for consultation, call 516-663-3809