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

**KYPHOPLASTY: WHAT IS IT FOR?**
Kyphoplasty is primarily a treatment for the pain caused by fractured vertebrae (the bones of the spine). It may also correct some of the deformity of the fractured vertebral body, thereby enabling improvement of other functions.

Kyphoplasty specifically treats painful, fractured vertebrae; it is not a treatment for painful or damaged discs (the soft tissue between the bones of the spine), or any other painful areas. Spine fractures are often caused by osteoporosis, a disease which makes the bones brittle and weak.

**WHAT IS KYPHOPLASTY?**
Kyphoplasty is typically an outpatient procedure performed by a Radiologist under sterile conditions in the special procedures room in the Radiology Department. Using image guidance (fluoroscopy or CT), the Radiologist places a special access needle into the vertebral body through a small incision in the skin of the patient’s back. Special balloon devices are then inflated within the compressed vertebra in order to reduce the fracture and restore its height. The inflatable balloon tamps are removed and medical grade acrylic bone cement is then injected slowly through the access needle into the vertebral body under image guidance. The bone cement hardens quickly, stabilizing the vertebral body and relieving the pain caused by the micro-motion of the fracture. It can also prevent further collapse of the vertebra and prevent further deformity. In many cases, kyphoplasty can provide correction of the deformity caused by the vertebral fracture, which in turn enables other functional improvements.

Most patients are treated under intravenous anesthesia, so recovery time is relatively short and many risks associated with general anesthesia are eliminated. Most patients are able to go home within a few hours of the procedure; many are able to resume regular daily activities within 48 hours.

You will need to lie face down on the procedure table for about an hour during the procedure; some patients find discomfort in this. Nurses, technologists and other radiology staff will help position you safely and comfortably for the procedure. 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 the pain.

**WHAT SHOULD I DO?**

*Before the procedure:*
The night before your kyphoplasty, 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 about five hours in the Radiology Department, beginning at the time of your appointment. Arrange for transportation home from the hospital following your kyphoplasty.

*During the procedure:*
A nurse will place and intravenous (I.V.) catheter in a vein located on either the top of your hand or in your wrist or forearm area. 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; we usually treat a maximum of 2 levels in one operation). 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 Radiology Department recovery area for observation for 3 hours following your kyphoplasty procedure.

Arrange for transportation 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 continues to heal, you may gradually return to daily activities. Your back muscles may be sore, but this discomfort gradually

**WILL IT HURT?**
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improves over days to weeks, depending upon how long you have had the fractured vertebra. Our staff will contact you after the procedure in order to find out how you are doing.

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 occupational therapy guidance to help establish low-risk activities of daily living. Approximately 3 weeks after your procedure you will consult with the Radiologist in order to discuss osteoporosis management, physical therapy, and any questions that you might have concerning your activity level.

**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 kyphoplasty procedure.

**IS IT SAFE?**
Kyphoplasty has been proven to be a safe and effective treatment for painful vertebral fractures. Success rates of 80-90% have been reported in medical literature over the past 10 years. Complication rates are very low, especially for osteoporotic fractures (major complications well less than 1%). The Radiologist will discuss the benefits, risks, and alternative treatments prior to obtaining your informed consent for the kyphoplasty 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 kyphoplasty have already tried these methods without satisfactory improvements in their pain. Kyphoplasty and a similar procedure, vertebroplasty, 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.

**Helpful Websites:**

- [www.kyphon.com](http://www.kyphon.com)
- [www.nof.org](http://www.nof.org)
- [www.spine.org](http://www.spine.org)
- [www.winthrop-radiology.com](http://www.winthrop-radiology.com)
What you should know and how you should prepare for kyphoplasty.

Balloon inflation reduces fracture.

Balloon is deflated, removed, and cement is injected in order to stabilize the fracture.

Instrument is placed into the fractured vertebra
KYPHOPLASTY

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PATIENT

GUIDE

85 year-old female
Painful Vertebral
Compression Fracture

Balloon Inflation

Cement Injection