UW Medicine

Angiography: Vertebroplasty and Kyphoplasty

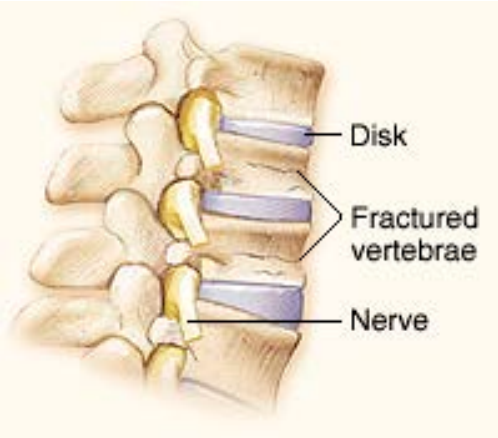
How to prepare and what to expect

This handout explains vertebroplasty and kyphoplasty, 2 treatments to strengthen a broken backbone. It describes how the treatments work, how they are done, how to prepare, and what to expect during the treatment.

What are vertebroplasty and kyphoplasty?

Vertebroplasty and *kyphoplasty* are treatments used to strengthen a broken *vertebra* (one of the bones in the backbone). Both treatments use imaging to guide the procedure. They do **not** involve surgery.

- In **vertebroplasty**, the radiologist uses a needle to inject an orthopedic cement mixture into the broken bone.
- In **kyphoplasty**, the radiologist inserts a balloon into the broken vertebra and then injects the cement mixture.



Vertebroplasty and kyphoplasty are ways to treat broken bones in the back.

It is important to treat weak vertebra, since they can collapse suddenly with normal activity. This can cause severe pain and limited mobility, and restrict your activities. The bone might be weak from *osteoporosis* (thinning of the bones), cancer, or some other cause.

Who should have vertebroplasty or kyphoplasty?

Your doctor may advise you to have one of these procedures if:

- Your broken back bone is causing you a lot of pain, and
- Bed rest and pain medicines do not provide relief

Newer fractures tend to respond better than older fractures. But, some older fractures are also treated successfully.

How do these treatments work?

After vertebroplasty or kyphoplasty, the cement stabilizes the fracture. This makes the vertebra more sturdy, which relieves the pain and keeps

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the bone from collapsing further. These effects occur within the first 24 to 72 hours after treatment.

Am I a candidate for either of these treatments?

To find out if one of these treatments will work for you, you will have a complete workup that includes:

- **Diagnostic imaging** such as spinal X-rays, *magnetic resonance imaging* (MRI), or a *computerized tomography* (CT) scan. These tests will be done to make sure that your problem can be treated with vertebroplasty or kyphoplasty. If an MRI cannot be done, because of a pacemaker or other medical factor, a (CT) scan can be done instead.
- **Blood tests**.
- **A physical exam**.

Your provider will review the results of these exams and then meet with you. You will talk about whether one of these procedures may work for you. and which one will be better and safer for you.

How do I prepare for the treatment?

- Take your usual medicines on the day of the procedure, unless the doctor or a nurse tells you to hold them.
- Starting **6 hours before** your procedure, stop eating solid foods. You may only have clear liquids (liquid you can see through), such as water, broth, cranberry juice, or weak tea.
- Starting **2 hours before** your procedure, take nothing at all by mouth.
  - If you must take medicines, take them with **only** a sip of water.
  - Do **not** take vitamins or other supplements. They can upset an empty stomach.
- Bring with you a list of all the medicines you take.
- Plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people with unexpected and urgent problems. Thank you for your patience if this occurs.
- Arrange for a responsible adult to drive you home after your treatment.

How are these treatments done?

- You must be able to lay *prone* (on your belly) on an X-ray table for these treatments.
- You will receive a *sedative* (medicine to help you relax and stay calm). You will also be given a *local anesthetic* that will numb the skin on your back, near the fracture.

- You may receive antibiotics through an *intravenous line* (IV) in your arm to prevent infection.
- A nurse will be with you throughout the treatment. If you feel any discomfort, we can give you more sedation. Our goal is to have you as comfortable as possible during the treatment.
- A small needle is passed through your skin on your back until its tip is inside the fractured vertebra. X-ray images help your radiologist place the needle in exactly the right place.
- Once the needle is in the right place, the cement is injected. This step takes 10 to 20 minutes.
- The entire treatment usually takes about 1 hour, or longer if more than one site is being treated.
- Most patients go home the same day, but an overnight hospital stay is sometimes needed.

What should I expect after the treatment?

- You must stay still in bed for the first 2 hours. After 2 hours, you can get up to use the bathroom.
- Increase your activity gradually.
- If you take blood thinners, talk with your doctor about when to start taking them again after your procedure.
- For 2 or 3 days after your treatment, you may feel a bit sore at the needle entry site. Most patients do not need treatment for pain. In fact, you should have less need for pain medicines compared to before the treatment.
- You must keep the needle entry site dry until the bandage over it has been removed. You can remove the bandage in 2 to 3 days.
- When you are home after the procedure, call to schedule a visit with your primary care provider in 2 weeks. During this visit, you will talk with your provider about how you are feeling. You will also talk about treatment for the problems that caused the bone fracture, such as osteoporosis or bone weakness.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC Imaging Services: 206.598.6200

UWMC Interventional Radiology/Angiography: 206.598.6209

When to Call

If you have questions:

- Weekdays from 8 a.m. to 5 p.m., call 206.598.6209.
- After hours and on weekends and holidays, call 206.598.6190 and ask for the Interventional Radiologist on call to be paged.

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