MERIT MEDICAL®

**Sudden-onset back pain could be the result of a spinal fracture.**



## Ask your doctor about

# Vertebral Augmentation

Get rapid and lasting back pain relief with the most advanced therapy available for spinal fractures.

# What Is a Vertebral Compression Fracture (VCF)?

Your spine is composed of small block-like bones known as vertebrae. A vertebral compression fracture (VCF) is a type of spinal fracture that occurs when the large portion of that bone, referred to as the vertebral body, collapses.

VCFs may result from osteoporosis (a condition that causes weak and brittle bones), multiple myeloma (cancer of the plasma cells in blood), as well as cancerous and noncancerous tumors. VCFs can be very painful and lead to spinal deformity, loss of height, and many other chronic diseases, which negatively impact your overall health and quality of life.






Weakened Bone Tissue

## How Are VCFs Treated?

Traditional VCF treatment can include pain medications, bedrest, bracing, and physiotherapy. Although these approaches may be appropriate for some patients, others have found little to no relief or clinical improvement.[1] Additionally, they are not without associated health problems, including accelerated rate of bone loss,[2] decreased aerobic capacity,[3] loss of lower extremity strength,[3] analgesic related side effects, delayed return to function,[4] and in some cases continued loss of height.[5]

Another option to manage VCFs is minimally invasive treatment, such as vertebral augmentation, a procedure that can provide rapid and lasting pain relief.[4, 6, 8] Vertebral augmentation can be performed using a number of different devices designed to access the fracture, create channels or cavities, and deliver cement through one or two small incision(s), approximately 1 cm in length.

Typically, an outpatient procedure, vertebral augmentation requires sedation and local anesthesia. The entire procedure takes approximately 30 to 40 minutes to complete, depending on patient needs.

*__NOTE:__ As with any surgical procedure, vertebral augmentation has the potential for complications.[7] Using steerable technology requires one incision and passing the spinal canal only once versus twice, as seen with other treatments, potentially reducing the occurrence of such complications.

*Versus two-incision approach to treatment

## The Vertebral Augmentation Procedure



1. Under imaging guidance, your doctor will make an incision* in your back and insert a thin, hollow instrument through the skin into the vertebra to be treated.
2. Using a steerable device called an osteotome, preferential channels are created in your vertebra.
3. A balloon is inserted and gently inflated with the intent of restoring the vertebra closer to its original anatomy and creating a cavity for cement delivery.
4. Bone cement is slowly delivered into the vertebra. The cement hardens within minutes, forming an internal cast that stabilizes the fracture and reinforces the bone, preventing further collapse. Once finished, a small band-aid is placed over the incision following treatment.

## After-Treatment Information

Patients are typically transferred to the recovery room after treatment for approximately an hour. A healthcare professional will monitor your condition and pain level. If performed on an outpatient basis, patients are commonly discharged after a few hours the same day. If hospitalized, patients are often discharged the following day.

You should be able to return to normal daily activities after your procedure, but it is important to always adhere to your doctor's instructions on physical limitations (if any) as well as when to return for follow-up appointments.

## Patient Benefits

After vertebral augmentation, mobility is often improved and patients experience a significantly better quality of life. To date, thousands of patients have benefited from the positive effects of their procedures.





## Benefits of Vertebral Augmentation

- Rapid and long-lasting back pain relief[8]
- Improvement in ability to perform daily activities[8]
- Vertebral height maintenance and potential for height restoration[5, 8]
- Reduced VCF-related mortality[10]

## Benefits of Steerable Technology in Vertebral Augmentation*

- Permits single incision and targets fractures
- Single incision with similar clinical results[9]
- Reduced incisional pain and access-related complications[7, 9]
- Shorter procedure time[9]
- Reduced procedural radiation exposure[9]

## Procedural Risks

Although the complication rate for vertebral augmentation procedures is low, as with most surgical procedures, patients undergoing vertebral augmentation are subject to risks associated with surgery including, but not limited to complications from:

» Anesthesia/sedation, bleeding, bruising, pain, infection, blood clots, myocardial infarction (heart attack), cardiac arrest (heart stops beating), stroke, embolism (blood, fat, or cement that migrates to the lungs or heart), damage to normal tissue, nerves, the spinal cord, or other structures

Not every person is a good candidate for vertebral augmentation. A prescription is required. Please review the Instructions for Use with your doctor for a more detailed description of risks and contraindications to see if this procedure is right for you.

## Explore vertebral augmentation with Merit Spinal Augmentation Systems

A broad range of vertebral augmentation products enables your doctor to customize treatment of your VCF in the most efficient and minimally invasive manner, stabilizing fractures and reducing back pain. Talk with your doctor to see which treatment is right for you.


**REFERENCES**

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