

# Vertebral Augmentation:

*Effective, minimally invasive treatment for spine fractures*

Vertebral compression fractures (VCFs) are common. They frequently, but not exclusively, occur in postmenopausal women, patients on steroid therapy, and in patients with bone metastasis in the spine or multiple myeloma.

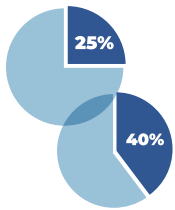
## VCFs: Prevalence and Risks



**34,000,000 Americans**

have low bone mass, placing them at risk for osteoporosis.<sup>1</sup>

Women are **4X more likely** than men to develop osteoporosis<sup>1</sup>



VCFs are the most common fracture in patients with osteoporosis, affecting **25% of all postmenopausal women** and **40% of all women over 80**<sup>1</sup>

Patients with a single thoracic vertebral compression are **5X more likely** to suffer another fracture.<sup>1</sup>



A single fracture at any vertebrae **increases mortality risk by 15%**<sup>2</sup>

## VCFs: Pharmacological Treatment

NSAIDs, often prescribed for pain control of VCFs, have **gastric toxicity** and an **increased risk of cardiac events** for patients with hypertension and coronary artery disease.<sup>3</sup>



Opioids may provide strong relief when NSAIDs are inadequate; however there is a **major risk of dependency**.

## VCFs: Treatment with Kyphoplasty

### KYPHOPLASTY

• A retrospective, 2-year single center study<sup>4</sup> demonstrates that kyphoplasty was shown to:



Pain



Need for pain medication



Ability to walk without support

• **7 out of 10** patients (approximately) achieved complete pain relief at 1 week and more than

• **8 out of 10** after 3-6 months, and was maintained for at least 2 years.<sup>4</sup>

• Vertebral height restoration of  $\geq 10\%$  was achieved in 90% of fractures, along with normalization of morphologic shape.<sup>4</sup>

• 4 year results show that kyphoplasty patients experience **lower mortality and morbidity** than VCF patients who receive conservative management.<sup>5</sup>

• Patients undergoing kyphoplasty for VCF were **37% less likely to die** than patients with VCF who did not have the procedure.<sup>6</sup>



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# Vertebral Augmentation:

## Vertebroplasty and Kyphoplasty procedures



**Balloon Inserted**



**Balloon Inflated**



**Cement Filled**

**Kyphoplasty** (also called balloon kyphoplasty) is also performed on an outpatient basis. During the procedure, a cannula is placed directly in the fractured vertebrae. A balloon is then inserted into the disc and inflated to correct the loss of height suffered during the fracture. The cavity made by the balloon is then filled with a fast-drying bone cement.

The procedure typically takes less than an hour, and the patient is usually able to return home the same day. The vast majority of patients have reported that kyphoplasty provides immediate pain relief and has improved their quality of life.<sup>7</sup>

The physicians of Memphis Vascular Center have been performing vascular and interventional radiology therapies for many years and are among Tennessee's leading experts on these procedures. If you are interested in learning more about therapies for vertebral augmentation or other conditions, please consult with one of our radiologists by calling **(901) 683-1890**.



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