

## Spinal Fractures

A spinal fracture, also known as a vertebral compression fracture (VCF), occurs when one of the bones of the spinal column weakens and collapses. Spinal fractures tend to be painful and, if left untreated, can adversely affect overall health and well-being.

In cases of multiple spinal fractures, the spine shortens and angles forward, resulting in kyphosis, or a "hunchbacked" posture. Over time, this condition may compress the lungs and abdomen, causing additional medical complications, such as:

- Reduced activity and alteration in mobility<sup>1,2</sup>
- Decreased appetite and sleep disorders<sup>1,2</sup>
- Impaired pulmonary function (breathing problems)<sup>3</sup>
- Increased risk for future fracture<sup>4</sup>
- Decreased quality of life; feelings of isolation and sadness<sup>1,2</sup>
- A 23% increase in mortality rate in women over age 65 with history of prior VCF<sup>5</sup>



Normal vertebra



Fractured vertebra

*It is important that spinal fractures are diagnosed and treated by a physician. A physical exam, along with an X-ray, can help determine if a spinal fracture has occurred.*

For more information or to locate a physician trained to perform KYPHON® Balloon Kyphoplasty, visit [www.spinalfracture.com](http://www.spinalfracture.com).



### References

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The complication for KYPHON® Balloon Kyphoplasty has been demonstrated to be low. There are risks associated with the procedure, including serious complications, and though rare, some of which may be fatal. These include, but are not limited to heart attack, cardiac arrest (heart stops beating), stroke, and embolism (blood, fat or cement that migrates to the lungs, heart, or brain). Other complications include infection and leakage of bone cement into the muscle and tissue. Cement leakage into the blood vessels may result in damage to the blood vessels, lungs, heart, and/or brain. Cement leakage into the area surrounding the spinal cord may result in nerve injury that can, in rare instances, cause paralysis. A prescription is required. Please consult your physician for a complete list of indications, contraindications, benefits, and risks. Only you and your physician can determine whether this procedure is right for you.

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## KYPHON® Balloon Kyphoplasty

Treatment for spinal fractures due to osteoporosis or cancer



MICHELSON  
TECHNOLOGY  
AT WORK

## About KYPHON® Balloon Kyphoplasty

KYPHON® Balloon Kyphoplasty is a **minimally invasive treatment** that can repair spinal fractures caused by primary or secondary (e.g. steroid-induced) osteoporosis, cancer, or benign lesions. Orthopaedic balloons are used to lift the fractured bone and return it to the correct position. Performed under **local** or **general anesthesia**, the procedure typically takes less than an hour and may require an overnight hospital stay as determined by your doctor.



Long-term effect of spinal fractures



Balloon placement

A hollow instrument is used to create a small pathway into the fractured bone. A small, orthopaedic balloon is guided through the instrument into the vertebra. The incision site is approximately 1 cm in length.



Full inflation

Next, the balloon is carefully inflated in an attempt to raise the collapsed vertebra and return it to its normal position.



Cavity within vertebral body

Once the vertebra is in the correct position, the balloon is deflated and removed. This process creates a cavity within the vertebral body.



Filling the cavity with cement

The cavity is filled with a special cement to support the surrounding bone and prevent further collapse.



The internal cast

The cement forms an internal cast that holds the vertebra in place. Generally, the procedure is done on both sides of the vertebral body.

## Step back into life with KYPHON® Balloon Kyphoplasty

Balloon kyphoplasty can make it easier for patients to return to everyday activities such as walking, bending, or lifting with significantly less pain than they had prior to the procedure. Studies report favorable patient outcomes,<sup>6,7</sup> including:

- Correction of vertebral body angular deformity
- Significant reduction in back pain
- Improved ability to perform activities of daily living
- Improved quality of life
- Low complication rate

KYPHON® Balloon Kyphoplasty is performed worldwide and has been used to treat spinal fractures since 2000. For more information, please visit [www.spinalfracture.com](http://www.spinalfracture.com).

