PATIENT INFORMATION

VERTEBROPLASTY

Treatment for pain and stabilization of vertebral compression fractures

INTRODUCTION

This educational information is provided to help you make an informed decision about vertebroplasty as a method of treating your vertebral compression fracture. Please read this material completely and discuss any questions with your doctor to decide if vertebroplasty is right for you. Only a doctor can determine whether you are a suitable candidate for this procedure.

COMPRESSION FRACTURES AND OSTEOPOROSIS

Vertebrae are the bones that join together to make up the spinal column. A compression fracture of a vertebra means that the bone has collapsed or is crushed. Compression fractures are the result of bone that has been weakened, most commonly by osteoporosis and in rare cases, by cancers, benign tumors, or trauma. In some cases, the fracture heals without treatment and the pain goes away. In others, the bone does not stabilize and continues



to move, causing persistent pain. For many patients, this pain severely limits their activities and reduces the quality of their lives.

Osteoporosis, or porous bone, is a disease characterized by low bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures of the hip, spine and wrist. Osteoporosis is often called the "silent disease" because bone loss occurs without symptoms. People may not know that they have osteoporosis until their bones become so weak that a sudden strain, bump or fall causes a fracture or a vertebra to collapse.

Collapsed vertebrae may initially be felt or seen in the form of severe back pain, loss of height, or spinal deformities such as kyphosis or stooped posture. The pain and loss of movement that often accompanies bone fractures of the spine are perhaps the most feared and debilitating side effects of osteoporosis.

Osteoporosis is responsible for more than
 1.5 million fractures in the USA annually;
 approximately 700,000 of these are vertebral
 compression fractures. Osteoporosis is a
 major public health issue. One in two women
 age 50 or older can be expected to suffer an
 osteoporotic fracture in their remaining life.

What is the Current Treatment Method for Vertebral Compression Fractures?

Historically, patients with compression fractures were treated with strong pain medications, prolonged bed-rest, external bracing, or invasive spine surgery.

These treatments are limited by long recovery times and disruption of daily life. Vertebroplasty is an alternative option to failed conservative treatment.

PERCUTANEOUS VERTEBROPLASTY

Vertebroplasty is a relatively new, minimallyinvasive procedure performed by our Consultant Neuro-Radiologist. A percutaneous procedure refers to one done through a small incision in the skin. Vertebroplasty is a technique to strengthen and repair the weakened bone of the vertebrae.

Vertebroplasty has been shown to

- Significantly reduce or eliminate pain in up to 90% of patients
- Prevent old compression fractures from further collapse
- Have a short recovery time
- Reduce spinal deformity
- Stop the "downward spiral" of untreated osteoporosis
- Provide the patient with an early return to daily activities
- Be cost effective

Vertebroplasty is for Patients with Vertebral Compression Fractures caused by:

Primary Osteoporosis

- Secondary Osteoporosis
- Vertebral fracture due to benign and malignant tumors
- Fractures occurring in patients that take high doses of steroids

BENEFITS OF VERTEBROPLASTY

- Minimally invasive; performed using x-ray guidance
 - Reduction or elimination of general anaesthesia
 - Reduced risk of complications that may result from open surgery
- Outpatient procedure
 - ~ Typically no overnight hospitalization required
 - ~ Treatment takes 1 2 hours
- Rapid recovery time
 - Patients typically return home the same day as treatment takes place
- Immediate pain relief
 - Immediate relief from pain is reported in some cases. Many patients are relieved of pain within 48 hours of treatment. For others, relief from pain may take up to three months. Some patients report immediate pain relief

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ARE YOU A GOOD CANDIDATE FOR VERTEBROPLASTY?

- Do you suffer from chronic back pain due to vertebral compression fractures and your fracture is less than one year old?
- Do you suffer from a metabolic disorder?
- Have you been treated with steroid therapy over a long period of time?

You can be considered a good candidate for Vertebroplasty if you can answer yes to any of the above questions.

Note: Vertebroplasty is not appropriate for treating pain associated with arthritis, herniated discs or degenerative disc disease.

BEFORE THE PROCEDURE

Your medical evaluation will include a physical exam. Diagnostic tests such as x-rays, MRI (magnetic resonance imaging) and bone scans will be reviewed to pinpoint the location of the fractured vertebrae and determine if this procedure is appropriate for you. Your procedure will normally be performed while you are asleep under heavy sedation performed by an anaesthetist. Your doctor will check your blood clots properly.

DURING THE PROCEDURE

Vertebroplasty requires that you lie on your stomach throughout the entire procedure. The area to be treated will be numbed by a local anaesthetic. A small nick is then made in the skin, and a needle is inserted. A biocompatible

material will be injected through the needle and into the vertebral body. The needle is removed and the biomaterial is allowed to harden. The small opening is covered with a bandage. This procedure can take from 1-2 hours, about a 1/2 hour for each treated vertebra.

AFTER THE PROCEDURE

You will be required to lie flat for the one to two hours after the procedure and will need 24 hours of bed rest at home. The rest period allows the biomaterial to fully set. Some patients experience immediate pain relief after vertebroplasty. Most report that their pain is gone or diminished within 48 hours. You might experience some discomfort or bruising where the needle was inserted.

WHAT ARE THE RISKS OF VERTEBROPLASTY?

Vertebroplasty is a very safe procedure that involves some risks. Complications are rare, but these should be discussed with your doctor. As with any medical procedure, the possibility of complications will hinge on the individual patient. For example, patients with tumors or with other serious medical conditions may be at a higher risk for complications from vertebroplasty than those without.

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EMERGENCY INFORMATION

The serious risks from vertebroplasty are rare and include

- Pulmonary embolism of cement which is usually asymptomatic
- Leakage of cement into the spinal canal to compress the spinal cord or around nerve roots which could need surgical intervention
- Bleeding
- Infection

Normally patients schedule an appointment to see the doctor performing the operation beforehand when consent is taken.

CONTACT

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