UNDERSTANDING VERTEBRAL COMPRESSION FRACTURE
What is my pain?

Keep this pain card handy when you are talking to your care providers about your pain. This will help them to understand the level of pain you are experiencing and when you might need more or less medication or a different treatment.

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0–1 “It doesn’t hurt at all.”

2–3 “Hurts just a little bit.”

4–5 “Hurts a little more.”

6–7 “Hurts even more.”

8–9 “Hurts a whole lot.”

10 “Hurts as much as you can imagine.”

Why do I have pain?

You have been diagnosed with a Vertebral Compression Fracture. That means that one of the bones in your back, or spine, has broken and lost height or become compressed.
What is a compression fracture?
A compression fracture occurs when a vertebra (one of the bones that make up your spine) cannot handle the pressure put on it, causing it to collapse in height. These fractures occur most commonly in the lower portion of your back at the thoraco-lumbar junction.

What are the possible causes of a compression fracture?
Fractures are categorised as either non pathological, which are typically trauma-related, or pathological fractures, which are typically linked to other conditions such as osteoporosis, tumour or infection. Your doctor will discuss with you the cause of the fracture and establish a treatment option.

What are the symptoms?
Back pain is the most common symptom of a compression fracture. The pain may come on suddenly or be mild, at first, then worsen over time. Tenderness over the broken bone is also common. These fractures can also cause an increase in the curve in the back and a loss of height. Patients may also adopt a stooped posture. You may find it difficult to move around.

What are my treatment options?
CONSERVATIVE TREATMENT
The most common initial treatments for a compression fracture are pain medications, limiting activity, and bracing. Vertebral compression fractures that are left to heal on their own may cause pain for up to three months.

• **Pain Medications** – Pain medications may be prescribed. These medications will not help the fracture to heal, but they can help to alleviate your pain and allow you to have some early conservative mobility as your doctor allows.

• **Decreasing Activity** – Bed rest may be prescribed initially as you are recovering from this fracture. This is a broken bone, so you should treat...
it with the same care as you would any other bone. You will most likely be instructed to reduce your normal activities. Avoid strenuous activities and exercises. Do not lift heavy objects. Avoid any activity that might place too much strain on your back.

• **Bracing** – Another common form of treatment for some types of vertebral compression fractures is bracing. Your doctor may prescribe a back brace to support the back and limit motion of the fractured spine; just as a cast would support a fractured arm. Braces may be rigid or lighter-weight, soft material depending on the need to balance comfort and ability to breathe well with the need to stabilize the muscles in the back and reduce the load on the broken bone. Taking the pressure off the fractured vertebral body, allows it to heal, and helps potentially to stop further compression of the vertebra.

**MINIMALLY INVASIVE PROCEDURES**

Some vertebral compression fractures may require further treatment if the pain becomes worse or doesn’t improve over time. Vertebral Body Augmentation is a surgical treatment your doctor may recommend and that is specifically performed to address vertebral compression fractures. It could take the form of Vertebroplasty, Kyphoplasty, or Stentoplasty, each of which is intended to alleviate pain and improve the strength of the vertebral body.

• **Vertebroplasty** – a minimally invasive procedure in which special cement is injected into the broken vertebral body. This technique is intended to stabilize the fracture, to help stop further compression and relieve the pain.

• **Kyphoplasty** – a minimally invasive procedure in which a catheter balloon is inserted into the broken bone. Once inside, the balloon is inflated to create a cavity inside the vertebrae and help restore lost height during compression.

The balloon is then deflated, removed and cement is injected into the cavity to stabilize the vertebral body.

• **Stentoplasty** – Similar to kyphoplasty, Stentoplasty utilizes a stent inserted into the vertebral body to create a mechanical scaffold to facilitate reconstruction. Unlike a balloon that is removed, the stent is left in situ and cement injected through and around it to stabilize the vertebral body.

**SURGICAL TREATMENT**

Spinal fusion surgery is a serious undertaking and is only considered to fix vertebral compression fractures if there is evidence of sudden and serious instability of the spine or bone fragments putting pressure on the spinal cord or nerves.
Complications
All surgical procedures may have complications. Make sure you discuss both the risks and the benefits of your treatment with your doctor. Risks may be higher in patients with additional medical conditions such as heart disease, so be sure to discuss these with your doctor as well.

How will my pain be managed?
Your doctor may prescribe medications to help you manage your pain during the initial phases of recovery from your compression fracture. You should be sure to ask your doctor questions to make sure you understand how and when to take your pain medication. A set of potential questions to help guide you are included below.

- What is the name of the medicine?
- How do you spell the name?
- Does this replace any medication I was taking before?
- How am I supposed to take the medicine?
- How much medicine should I take?
- How long do I need to take the medicine?
- What are the side effects?
- When should I tell someone about a side effect I’m experiencing?
- Do I need to avoid any food, drink, or activities?
- Does this new prescription mean I should stop taking any other medicines or vitamins?
- What should I do if I accidentally take too much?

You should use the pain scale (page 3) to track your pain levels over time and in response to the medication you have been prescribed. You should contact your doctor if the pain does not respond or if you are unable to take the medication due to side effects, and you are still in pain.

Other tips for dealing with the pain
Pain is a complex experience for any person. It involves not only your compression fracture, but a number of behavioral factors as well. Your pain can cause you to feel tense, sad, and even interfere with your social life. There are ways to help improve your experience of pain and we’ll share a few tips here.

1. Does your pain sometimes make you feel tense? That tension then can also make the pain feel worse. There are two fundamental ways to help reduce tension in your body that can help lessen your pain.

   **Diaphragmatic Breathing** – this is a deep breathing technique where you take long, slow, deep breaths while you focus on extending your stomach as a way to take in air (much like watching how babies breathe when they are sleeping). Try starting to do these exercises for short periods of time (e.g., 1 minute) and build up to longer periods as you get better.

   **Progressive Muscle Relaxation** – this is a process where you gently tense and relax each part of your body from head to toe, in order to get your whole body to relax. Start with your head by tending the muscles in your face, then move to your shoulders, arms, etc all the way to your toes. Do not tense any parts of the body that are injured or could cause damage.

2. **Levels of activity** – People with chronic pain typically have days where they feel much better or much worse than others. When feeling better, it’s
easy to try and accomplish a lot to make up for when you’re feeling worse. You could end up overdoing it and have much worse pain the following days. This could turn into a cycle of very high and very low activity and pain. Other people have found success in moderating their activities. This means, that when you are feeling good, try to accomplish a few meaningful goals and when you are feeling worse, try to at least do a little activity, no matter how small – just what you can manage.

3 Social support and social activities –
It’s very important to have a strong support group around you. That might be family, friends, and health care providers. All of these people can have an impact on your experience of pain. Some people don’t understand or appreciate the level of impact pain can have in your life, which can interfere with your social relationships and well-being. Try to keep a positive and supportive social group to help.

What should I do now?
You may need to have more testing such as an MRI, bone scan or DEXA scan. Some tests require pre-authorization from your insurance and may take time. To ensure that your care happens in a timely fashion, it is important to coordinate all activities promptly.

It is important that you understand your treatment plan, including when you should be feeling better and what your next steps are if your pain is not resolving within a time frame that you and your doctor discuss. You may need to see a specialist for follow-up treatment. If your fracture is due to osteoporosis, your doctor might recommend to start a specific treatment for osteoporosis in order to improve bone quality and avoid potential future fractures.