Because multiple myeloma is a cancer involving the bone marrow, a common myeloma symptom is bone pain. But the good news is that most pain can be managed. This resource can help you better understand pain caused by multiple myeloma, and how you can work with your healthcare team to help evaluate and manage your pain.

KEY POINTS
1. 7 out of 10 people experience pain related to their multiple myeloma
2. Multiple myeloma can cause pain by weakening bone structure, and bone pain is an especially common complaint
3. Most pain can be managed, and you can play an active role in controlling your pain

UNDERSTANDING PAIN IN MULTIPLE MYELOMA
Pain is common in people who are living with multiple myeloma. In fact, 7 out of 10 people experience pain related to their multiple myeloma. Bone pain is an especially common complaint.

WHY DOES IT HURT?
Multiple myeloma can cause pain by weakening bone structure. In a healthy person, cells called osteoclasts work to break down old or worn-out bone. At the same time, cells called osteoblasts work to form new replacement bone. Together, these cells continually rebuild your bones to keep them strong in a process called remodeling.

When a person has multiple myeloma, the myeloma cells release increased amounts of a substance that activates osteoclasts—so more bone is broken down than usual. In addition, the myeloma cells multiply and crowd out the osteoblasts, stopping them from forming new bone. These processes result in bone damage that can cause pain in a number of ways:

- **Bone lesions**: Bone lesions are soft spots that develop in locations where the bone has been damaged. Lesions occur most often on the spine, pelvis, or ribs, and are the most common cause of pain in people with multiple myeloma. Pain from bone lesions may be worse with movement, as well as at night.
- **Bone fractures**: Bone lesions can lead to bone fractures, which occur when a weak bone actually cracks. If you experience a new, severe pain, it may be a sign of a broken bone.
- **Spinal cord compression**: Multiple myeloma can sometimes cause the bones that make up your spinal column (called vertebrae) to collapse. This is called a compression fracture. When collapsed vertebrae push against your spinal cord or pinch a nerve coming out of your spine, you may feel pain as well as numbness and weakness. Pain from spinal cord compression is often felt in the middle of your back.

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- **Hypercalcemia**: This is a condition in which too much calcium from broken-down bones is released into your blood, which can cause pain from weakened bones. If you have hypercalcemia, you may also experience other symptoms such as stomach issues (like constipation or nausea), kidney symptoms (like frequent thirst or urination), muscular symptoms (like twitches or weakness), mental symptoms (like depression or memory loss), or skeletal symptoms (like loss of height).

Listen to your body, and call your doctor right away if you have any worsening pain or severe new pain. The goal is to find the cause of the pain and begin to treat it as quickly as possible.

**EVALUATING PAIN**

When you experience pain, your healthcare team will first work to pinpoint exactly where your pain is occurring—and what could be causing it.

This process may include:

- **A series of questions** about when the pain started and how long it lasted, where you feel the pain, and what activities or times of day seem to make it worse.

- **A physical exam** to check your body for signs of any changes.

- **A neurological exam** to check the function of your brain, spinal cord, nerves, muscles, and reflexes.

- **Imaging tests** such as X-rays, magnetic resonance imaging (MRI) scans, or positron emission tomography (PET) scans of your bones to look for weak or broken bones, bones with myeloma tumors or lesions (which will look like “holes” on an X-ray), or bone lesions that may be pinching nerves or compressing your spine.

- **Other lab tests** such as blood and urine tests to look for signs of hypercalcemia.

Once the cause of your pain is determined, your healthcare team can work with you to find ways to manage it.
SUPPORTIVE CARE FOR PAIN

Managing bone pain is a specific concern for patients. Your healthcare team will work with you to find the best combination of personalized care to help control your pain from myeloma. These may include:

- **Prescription pain medicine:** The most common prescription pain relievers used to treat bone pain are known as analgesics. Your doctor may prescribe analgesics in different forms, including:
  - A patch that you place directly on your skin, which delivers medicine continuously into your body
  - A pill that releases medication into your body slowly over time
  - A small, portable pump that is connected to an intravenous (IV) port, which delivers medicine continuously into your body
  - A lozenge on a stick, or a tablet, that releases pain medication into the mucus membrane lining your mouth and that can offer quick relief from sudden pain

- **Radiation:** Your doctor may treat you with radiation therapy to shrink tumors that are pressing on nerves, causing pain. This may help you move more freely and with less pain

- **Surgery:** Your doctor may recommend surgery to stabilize bones. He or she may also suggest inserting plates or rods to support fragile bones

- **Back or neck brace:** Your doctor may advise you to wear a back or neck brace to support your bones and relieve pain

- **Complementary therapies:** Your doctor or nurse may recommend massage therapy or acupuncture to help with pain relief

- **Home care:** Your doctor or nurse may advise you to use heating pads or cold packs, stretching, relaxation exercises, or meditation to help relieve pain at home

- **Strategies to strengthen weak bones and lessen the risk of pain and fracture:** Over time, weak bones may be strengthened with nutrition, exercise, physical therapy, and medication

When your doctor prescribes a new pain management plan, be sure to ask to ask about timing and potential side effects so that you are prepared and know what to expect.
DON’T LET PAIN GET THE BEST OF YOU

Just because you have multiple myeloma, doesn’t mean you need to suffer with pain. Most pain can be controlled—and pain is a part of your cancer treatment plan. Your healthcare team will help create a pain management plan that’s right for you.

What you can do:

• **Speak up.** You should always tell your doctor or nurse when you have new or worsening pain. Pain can be an important sign of how well your treatment is working and how you are tolerating it, and it may help your doctor make decisions about your care. Plus, your doctor can only help you to manage your pain if he or she knows about it.

• **Use descriptive words.** Try to describe the specific way the pain feels with words like: *dull, sharp, aching, throbbing, shooting, burning, stabbing, pulling,* or *tingling*. You can also tell your doctor or nurse how the pain is affecting you—for example, if it’s making you tired, depressed, or discouraged. This can help paint a fuller picture of your pain for your healthcare team.

• **Show where it hurts.** Print out this page and circle exactly where it hurts on the figure. Tell your doctor or nurse what the pain feels like, and show him or her this page.

• **Track your pain.** Writing down how you feel each day—including when you feel pain and what activities you were doing when the pain occurred—can give helpful clues to your healthcare team as they work to find ways to manage your pain.

• **Follow your pain-management plan.** If your doctor prescribes medication to control your pain or prevent it from getting worse, you can help by making sure you take the medicine as directed. Treatments for pain management work best when you follow your healthcare team’s directions and keep them posted on how your pain responds to treatment.

• **Reach out for help.** If you have any questions about what your pain might mean—or about taking your medicine—ask your doctor, nurse, or pharmacist for help.
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FOR MORE INFORMATION ON UNDERSTANDING PAIN, VISIT:

National Cancer Institute booklet *Pain Control: Support for People with Cancer*

Information about this independent organization is provided as an additional resource for obtaining information related to multiple myeloma. It does not indicate endorsement by Celgene Corporation of an organization or its communications.

Your healthcare team is your best source of information.