Pain and Chemotherapy

What Is Pain & How Is It Affected by Chemotherapy?

Common Forms Of Pain:

Pain is the unpleasant sensory experience due to nerve or tissue damage. Pain may be a result of:

- Injury - from a trauma (such as from falling down, a car accident)
- Tumor invasion - A cancerous tumor may have invaded nerves, an internal organ (such as the liver or lung), or your bones, and caused pain.
- Blood clots - in your legs, or in your lungs may have damaged nerve or tissue.
- Infection - causing an inflammation of the tissues anywhere in the body
- Other causes - There are many other diseases and medical conditions that may cause pain, such as thinning of the bones due to osteoporosis, (which may have also caused a fracture of the bones), or inflammation of the joints (arthritis).

Your pain may be acute or chronic. Acute pain is pain that usually lasts for less than 6 months. Chronic pain is pain that lasts for more than 6 months. The longer that you have pain, the more at risk for depression and extreme tiredness (fatigue) you will be.

Common Examinations to Diagnose Pain:

Bone Scan: After injecting a small amount of radioactive dye into your veins and taking x-rays, your doctor or healthcare provider can see if there are any problems with the bones in your body.

You may have a bone scan if your healthcare provider suspects:

- Bone damage -from arthritis, or trauma (from falling down, or an accident)
- Infection in your bones
- That the cancer may have spread to your bones.

There is no special preparation for this exam. You may have to wait 2 or 3 hours after the radioactive dye is injected into your blood stream for the procedure to be completed. Before the examination, your healthcare provider will give specific instructions to you.

Bone Survey: A bone survey, or skeletal survey, is a procedure that looks at all of the bones in your body. This includes your skull, the long bones in your arms and legs, and your pelvis.

Bone X-ray: A single x-ray may be done if there is a particular region causing pain. Your healthcare provider may order this examination if he or she suspects that:

- There is damage to your bones from diseases, such as cancer
- Infection may be present
- Bone thinning (osteoporosis) or arthritis

Like the bone scan, there is no preparation for this exam. You will not receive an injection of radioactive dye before your bone survey. There are differences between the bone scan and the bone survey, in terms of how they are interpreted. Your healthcare provider will determine the right examinations for you and will give specific instructions to you before the examination.

Chest X-ray: This is a quick and painless procedure where a picture, or an x-ray, will be taken to look at the internal structures of your chest. The chest x-ray will look specifically at your lungs, heart, and ribs. This one-dimensional view may provide your healthcare provider with important information about what is happening inside your chest wall, and lung region.

Chest x-rays may be done routinely, if your healthcare provider wants to "watch" a certain finding. It may also be done if you have symptoms, such as a prolonged cough, or chest pain. If your healthcare provider or doctor thinks there may be a suspicious finding, he or she may recommend that a more accurate test be done, such as a CAT scan.

Computerized Tomography (CT) Scan: This test is more specific than plain x-rays, as a computer takes pictures of your chest, abdomen, pelvis, head, head and neck or limbs from different angles, to show a cross-sectional view of your chest and lungs. How it works:

- As you lie on a movable table, a scanner inside of a machine moves around you. X-rays are taken at different angles, as the computer records the pictures. The computer then puts the pictures in a specific order, so that the specialist can interpret the findings.
- Sometimes, you may be given a contrast (dye) solution, either taken by mouth (oral) or injected into a large vein (IV). This helps to improve the picture, and show any abnormalities as the dye passes through your body. Your doctor may want you to drink oral contrast if he or she wants to examine your abdomen or pelvis at the same time the chest is examined.
- You may be required to fast (not eat) after midnight the day of the exam. Your healthcare provider will give specific instructions to you.

Magnetic Resonance Imaging (MRI): While x-rays are very good at looking at bones and solid structures, an MRI looks, very specifically, at the bones, soft organs, cartilage, eyes

and tissues of your body. An MRI is best at examining the spine if spinal cord compression is suspected. You may receive an MRI:

- Of the spine if you are having severe back pain, and your healthcare provider is worried about the stability of your spine. You may have this done if you have cancer that has gone to your bones (metastasized), or if there is a tumor on your spine. You may also have thinning of the bones (osteoporosis), and you are at risk for breaking a bone or fracturing one or more of the bones in the vertebral column, called vertebrae.
- There are 33 vertebrae, each joined by ligaments. Damage to one or more of these bones may damage the spinal cord, and cause a great deal of pain and other serious problems.
- Of the brain to look at the brain tissue, to check for cancer, or cancer that may have spread, or swelling. This is also important if your doctor thinks you may have an infection in your eyes or head.
- Of a joint if you have had injury (from playing sports, walking, or falling down), and you have a lot of pain. This will show if any ligaments or cartilage have been damaged in your body. You may receive an MRI of the shoulder, knee, or any other joints in your body.

There is no special preparation in many cases, but you should not wear metal to the exam. Avoid all metal inside the MRI machine, including:

- Metal snaps on clothing
- Zippers
- Jewelry
- Watch
- If you have a pacemaker, metal plates in your body from surgery, or any other type of metal in your body, notify your healthcare provider.

There is a loud whirring noise associated with the MRI machine, which many people find upsetting. While you are undergoing the procedure:

- It helps to wear earplugs or headphones to block out the noise of the machine.
- If you are anxious, close your eyes and take slow, deep, even breaths. Think of things that have relaxed you in the past.
- This procedure takes about 1/2 hour to 1 hour to complete.

Common Types of Pain:

- Bone pain - Due to bone damage from trauma or tumors, most likely.

- Nerve pain - Nerve pain is a common symptom experienced by patients with certain types of cancers. When there is nerve injury present anywhere in the body, certain pain receptors may create new nerve endings. The threshold for pain (the point at which you experience pain) related to the nerves, may be decreased during a pain episode. Therefore, pain may be noticed:
- While you are at rest - known as chronic, persistent pain
- While you are moving, when you have coughed, or have performed a certain activity - called breakthrough cancer pain (BTCP). BTCP is known as a "flare" of pain, and can be severe.
- Whenever nerve endings are irritated.
- Chemotherapy or radiation induced pain - is most often a form of nerve pain. It can cause peripheral neuropathy (painful numbness of the extremities), or paresthesia (numbness and tingling of hands, feet or any extremity of the body).
- Commonly used chemotherapy drugs, such as Vincristine Sulfate, Paclitaxel or Cisplatin, may cause what is known as chemotherapy-induced peripheral neuropathy or paresthesia.
- To help your healthcare provider diagnose and manage your pain, it is important to follow all the instructions that you have been given. It is also important to record a pain diary.

How to Manage Your Pain:

Keep a diary of your pain. If you are having pain for any reason, your healthcare provider will ask certain questions to determine the cause of your pain. Things to include are:

- Onset - when did the pain start? What was I doing when I had pain?
- Quality - what does the pain feel like? Is it knifelike and stabbing, or dull and constant?
- Location - Where is the pain? Can I point to it with my finger, or is it spread all over?
- Intensity - How bad is your pain all the time? How bad is it with certain activities that cause you to feel pain, on a 1-10 scale, with the number "10" being the worst pain imaginable?
- Duration - How long did the pain last for? Is it while I was walking to the door, or did it continue for a while?
- Character or aggravating factors - Does the pain come and go whenever I perform a certain activity, or is it unpredictable?
- Relieving factors - what can I do to make the pain go away? Does anything help? What have I used in the past that have worked, and does this work now?
- Your mood - How is your mood? Are you depressed or anxious? Does this make the pain worse?

If your pain has been undiagnosed, your healthcare provider may order certain tests or examinations based on your pain. This may include x-rays, CAT Scans, bone survey or scan, or an MRI. Your healthcare provider will order the exams that are right for you. If you already have a source or cause for your pain, it is important to follow your healthcare provider's recommendations.

Note: We strongly encourage you to talk with your health care professional about your specific medical condition and treatments. The information contained in this website is meant to be helpful and educational, but is not a substitute for medical advice.