

TREATING PAIN FOR BETTER DAYS

If you are suffering from pain caused by bone tumors, and standard therapy is not effective or not a good option for you, talk to your oncologist about alternative treatment options, such as OsteoCool™ RF Ablation.

Medtronic

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MICHELSON TECHNOLOGY AT WORK

OSTEOCOOL RF ABLATION **TREATS PAINFUL BONE TUMORS**

RF (radiofrequency) ablation uses alternating, low power current to generate heat during a procedure. The heat is delivered by a probe to the tumor to intentionally dry out and kill cancerous cells.

OsteoCool™ RF Ablation is leading-edge technology that allows your doctor to deliver the ablation energy to the precise size and location of your tumor. It's predictable. During the procedure, pumped water circulates through the probes to control the temperature and help reduce damage to the surrounding healthy tissue.



COMMON TREATMENT OPTIONS **MAY NOT BE EFFECTIVE**

Your pain may be worse if you have failed or are not a candidate for conventional cancer therapies such as opioids, chemotherapy, and radiation therapy.

If these treatments are considered ineffective or too slow-acting, or if they cause unacceptable side effects,[7] you may find relief from your cancer pain with the OsteoCool™ RF Ablation procedure.

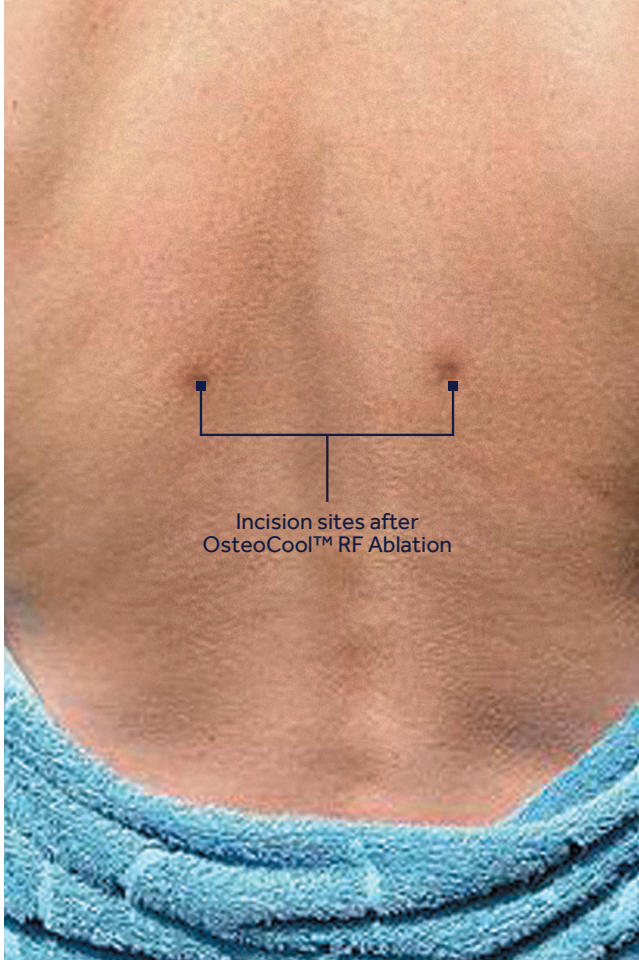


One-third of cancer patients are left with inadequate treatment or undermanaged pain control because standard treatments have failed.[8]

HOW DOES THE **PROCEDURE WORK?**

1. Your doctor will take an X-ray, CT scan, or MRI to identify which bones are causing pain.
2. The procedure is minimally invasive. You will receive local or moderate sedation during the ablation treatment. (Usually, you'll go home the same day.)
3. Your doctor will make one or two small incisions in your skin, near the location of the tumor. The ablation probes are inserted.
4. The OsteoCool™ system is turned on and emits energy for 6.5 to 15 minutes per affected area, targeting the tumor.
5. If the tumor is in your spine and you also have a vertebral compression fracture, you may have a vertebral-stabilizing procedure, called vertebroplasty or kyphoplasty. You and your doctor will discuss this during an appointment before the ablation procedure. The stabilizing procedure can be done at the same time your tumor is treated, using the same incision sites.

The illustration on the right shows incisions for treating tumors in the spine, one of the most common locations for tumors to metastasize.



KNOW YOUR **OPTIONS**

Having cancer is challenging enough and, if it metastasizes or moves into surrounding bone, it can be extremely painful — making every day even more challenging. Medtronic offers radiofrequency ablation to help treat painful bone tumors, so you can do more of the everyday things that make life special.

ABOUT METASTATIC BONE DISEASE

Metastatic bone disease occurs when cancer metastasizes or moves into surrounding bone. Bone is invaded in 60-80% of patients with metastatic disease[1] — most frequently among patients with primary tumors of the breast, prostate, and lung.[2] The most common bones for tumors to move to include the spine and pelvis.[3] However, these tumors can be found in all areas of the body.

Tumors that have moved to surrounding bone can affect quality of life, producing complications such as pain, fractures, and decreased mobility. In addition to these symptoms, bone metastases can cause mood changes such as depression[4] and anxiety.[5]



75% of cancer patients with bone tumors experience pain[6]

WHAT ARE **THE RISKS?**

Remember to always talk to your doctor about the benefits and potential complications and risks of any procedure.

Damage to surrounding tissue may occur. If you have tumor in the cervical spine (neck) or have a heart pacemaker or other electronic implant, this procedure may not be right for you.

At Medtronic, we create technologies to treat cancer pain in new ways, so people can live better. For more information on the OsteoCool™ RF Ablation procedure, please visit *medtronic.com/learnaboutosteocool*.

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