

YOUR  
EXPERTISE  
OUR  
INNOVATION



#### REFERENCES

1. Janjan N, et al. Therapeutic guidelines for the treatment of bone metastasis: a report from the American College of Radiology Appropriateness Criteria Expert Panel on Radiation Oncology. *J Palliat Med.* 2009;12(5):417-426.
2. Nakatsuka A, Yamakado K, Maeda M, et al. Radiofrequency ablation combined with bone cement injection for the treatment of bone malignancies. *J Vasc Interv Radiol.* 2004;15:707-712.
3. Wallace AN, Greenwood TJ, Jennings JW. Radiofrequency ablation and vertebral augmentation for palliation of painful spinal metastases. *J Neurooncol.* 2015;124(1):111-118.

PLUG AND PLAY  
COMPATIBLE  
REPRODUCIBLE  
PRECISION

The **OsteoCool™ Bone RF Ablation System** is cooled radiofrequency ablation technology. It offers simultaneous, dual-probe capabilities intended for ablation of benign bone tumors such as osteoid osteoma and palliative treatment by ablation of metastatic malignant lesions involving bone, including the vertebral body.

OsteoCool™ lets you treat patients **confidently** and **consistently**.

**TOGETHER, WE CAN  
TREAT CANCER PAIN  
IN NEW WAYS,  
SO PEOPLE  
CAN LIVE BETTER**

In 79% of patients with skeletal metastases, the most frequent complaint is pain associated with the disease<sup>1</sup> — a pain that is usually progressive and significantly reduces quality of life.<sup>2</sup>

Metastatic lesions in the spine become painful due to neural compression, pathologic fracture, or other biochemical mechanisms.<sup>3</sup>



**OsteoCool™ Bone RF  
Ablation System**

## Medtronic

**Europe**  
Medtronic International Trading Sàrl.  
Route du Molliau 31  
Case postale  
CH-1131 Tolochenaz  
www.medtronic.eu  
Tel: +41 (0)21 802 70 00  
Fax: +41 (0)21 802 79 00

For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use.

[medtronic.eu](http://medtronic.eu)

UC201802590aEE © Medtronic 2017.  
All rights reserved. Printed in Europe. EMO4999

**Medtronic**  
Further. Together

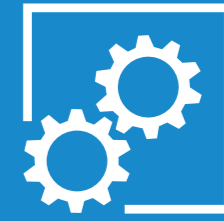
# REPRODUCIBLE PRECISION



# COMPATIBLE



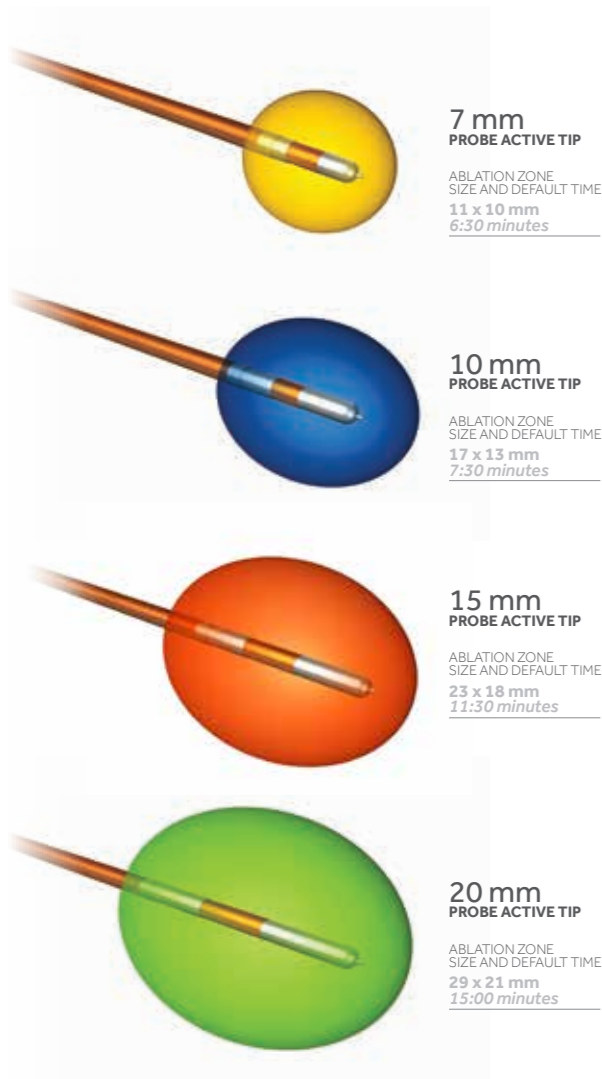
# PLUG AND PLAY



## KNOW WHERE THE HEAT IS GOING

Coaxial, bipolar technology delivers RF energy to the site consistently

- Algorithms designed to perform optimally in bone
- Bone access kit defines anterior and posterior ablation boundaries
- Confidence in ablation zone mapping
- The OsteoCool™ Independent Thermocouple is for optional temperature monitoring at or near the site of ablation



## IT'S PREDICTABLE

Create large volume lesions without excessive heating at the active tip

- Minimize potential for char with internally cooled ablation probe
- Thermocouple monitors tissue temperature and impedance around the distal tip of the 17 Gauge probe

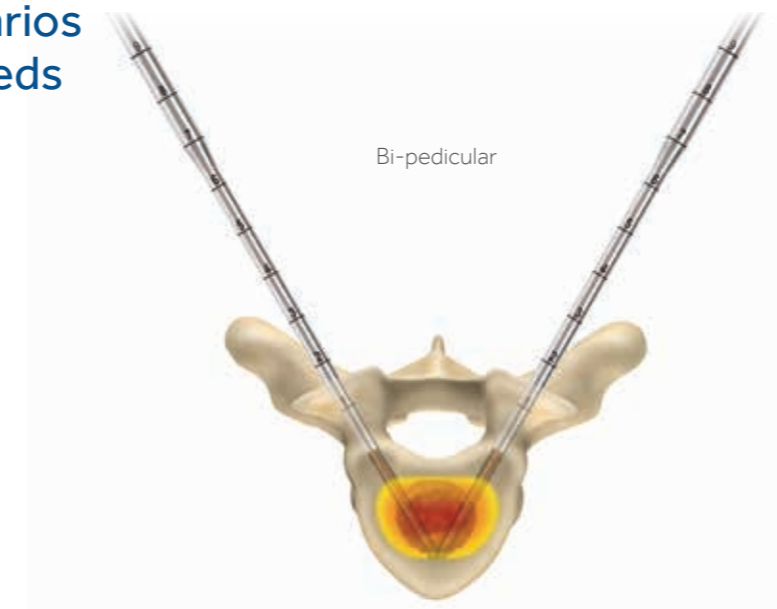
At a target temperature of 70° C at the distal tip, the probes ablate for the pre-set time and yield predictable ablation zones.

## CUSTOMIZE YOUR ABLATION OPTIONS

OsteoCool™ provides flexibility with a wide range of ablation scenarios for your patient and procedural needs

Treat adjacent or multiple vertebral levels simultaneously:

- Bi-pedicular, Uni-pedicular
- Track ablation mode
- Independent Thermocouple (optional)



Simultaneous ablation allows two probes to be positioned closely enough to produce large ablation zones.



## EXPERIENCE EFFICIENCY

- Multiple introducer gauge options
- Where indicated, use same bone access for subsequent physician-directed procedure such as cementoplasty (i.e., kyphoplasty or vertebroplasty)



## SIMPLIFY THE PROCEDURE

OsteoCool™ key design features

- Interactive touch screen interface
- Smart technology, recognizes probe size and automatically presets ablation time
- Tracks temperature and power output to reduce risk of thermal damage to adjacent structures
- Generates power levels specific to vertebral lesion sizes
- Monitors impedance and automatically pauses ablation before charring can occur
- Automatically halts RF energy delivery once ablation time is complete

## Important Safety Information

OsteoCool™ RF Ablation System: is indicated for the ablation of benign bone tumors such as osteoid osteoma and palliative treatment by ablation of metastatic malignant lesions involving bone, including the vertebral body.

OsteoCool™ Bone Access Kits: Indicated for percutaneous access to bone.

OsteoCool™ Independent Thermocouple: Intended for measuring tissue temperature throughout an RF ablation procedure.

The OsteoCool™ RF Ablation System is contraindicated for use in the cervical spine and for use in patients with pacemakers or other electronic implants.