

AVANOS

COOLiEF
Cooled Radiofrequency Treatment

INNOVATION • IS BUILDING FOR THE FUTURE



**Intuitive
User Interface**



**Independent
Channel Control**



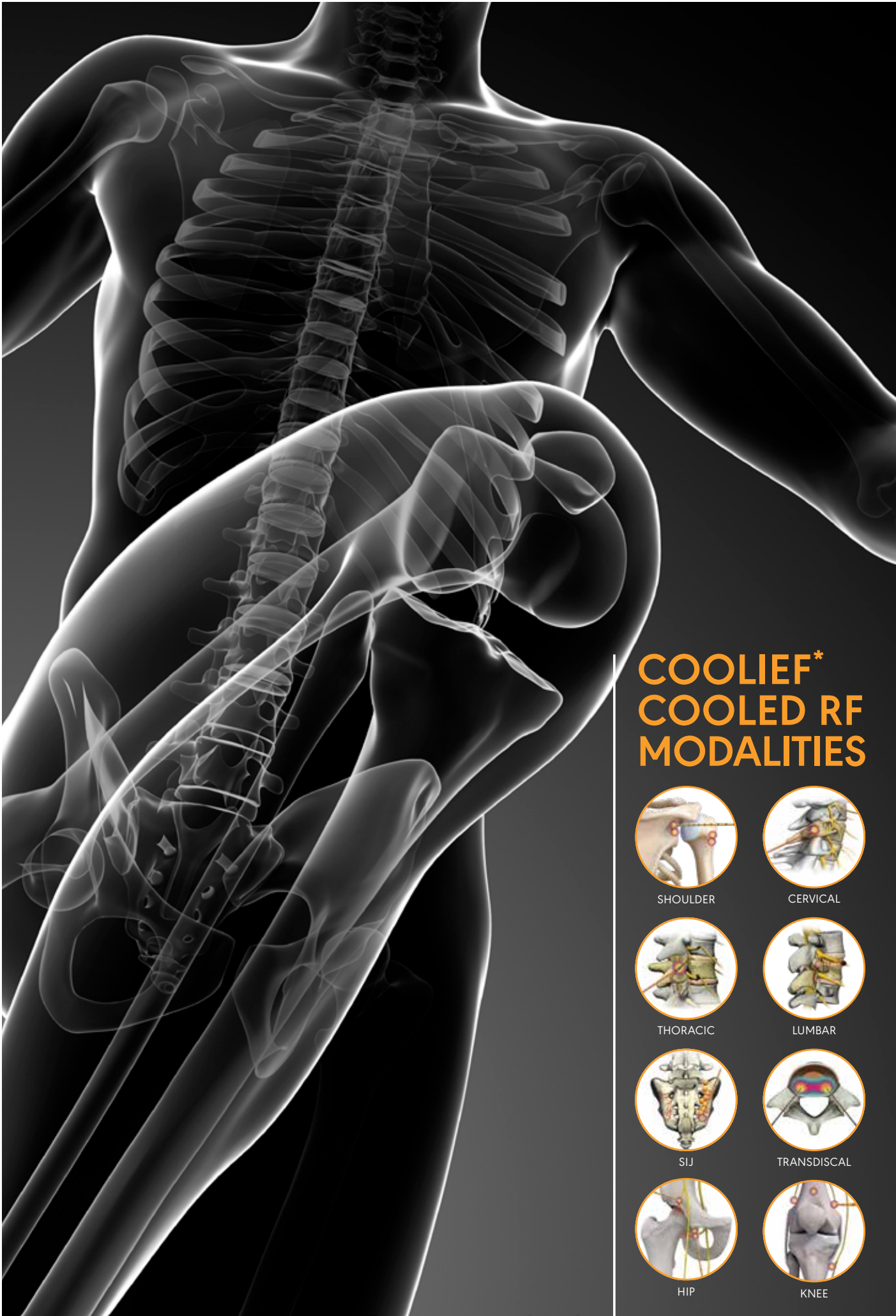
**Powerful
Performance**



**Multiple RF
Treatment Options**



COOLED RADIOFREQUENCY



COOLIEF* COOLED RF MODALITIES



SHOULDER



CERVICAL



THORACIC



LUMBAR



SIJ



TRANSDISCAL



HIP



KNEE

COOLIEF* COOLED RF: THE COOLED RF AUTHORITY

The First Clinically-Proven Cooled RF Treatment for Chronic Pain

Avanos is continuing to drive innovation with COOLIEF* Cooled Radiofrequency, the leading minimally-invasive and non-narcotic RF procedure that leads to better patient outcomes and improved physical functionality.

Specifically designed to treat complex anatomy of variable nerve courses, COOLIEF* Cooled RF uses water-cooled technology² that enables more RF energy to safely deactivate pain-transmitting sensory nerves. This creates a larger, spherical lesion that distally projects 45% or greater beyond the probe's tip, allowing physicians to approach the target nerve from any angle. These features increase the likelihood of successful ablation and improve patient outcomes.



Effective chronic pain relief for up to **24 months**¹



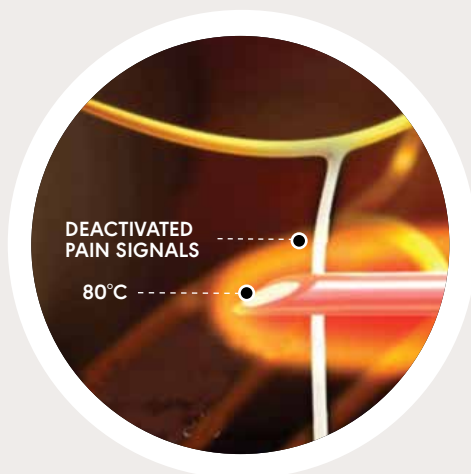
Proven by level I evidence in multiple modalities



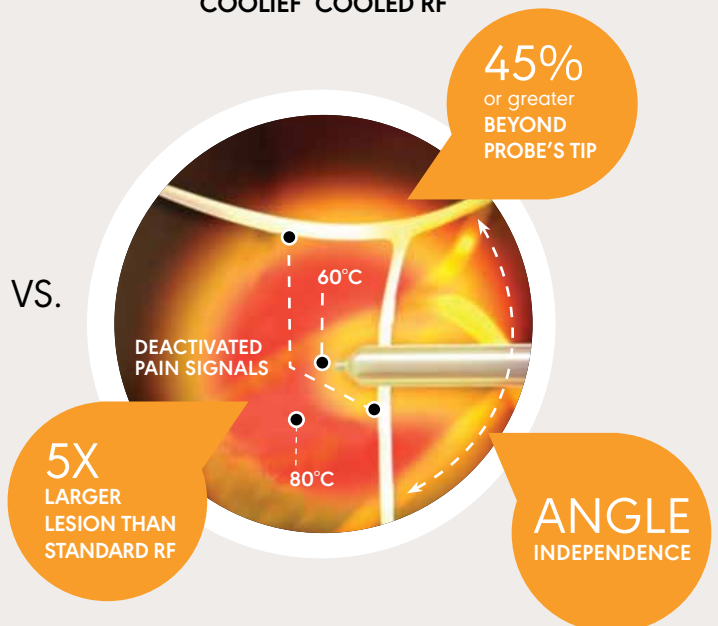
Delivers up to **3.7X** more energy than Standard RF

Longer lasting pain relief with COOLIEF* Cooled RF

STANDARD RF



COOLIEF* COOLED RF



1: Ho KY, et al. Cooled radiofrequency denervation for treatment of sacroiliac joint pain: two-year results from 20 cases. Journal of Pain Research. 3 July 2013;6:505-11

2: The "Cooled RF Set Temp" (Default Setting T = 60°C) displayed on the COOLIEF* RF Generator refers to the cooled electrode temperature and does not reflect the immediate surrounding tissue temperature. The heat generated from the radiofrequency energy produces thermal energy with average maximum tissue temperatures greater than 80°C.

THE INNOVATION CONTINUES

COOLIEF* Radiofrequency (RF) System Technology

The new COOLIEF* RF System simplifies RF ablation and is designed for intuitive usability. The COOLIEF* RF system performs Cooled, Standard and Pulsed RF and is comprised of a new designed RF generator, peristaltic pump and therapy cables.



Innovation Driven

- **80 W Generator** performs Cooled, Standard (including single and dual bipolar), Pulsed and TransDiscal Procedures
- **Independent Channel Control** allows staggered start, stop and adjusting of 4 independent channels. Adjust time and temperature in Cooled and Standard Modes without impacting other channels
- **Enhanced Safety Circuitry** reduces the risk of grounding pad related skin burns
- **Easily Accessible** Procedure Summary and Clinical Logs are easily accessible

Intuitive Usability

- **Intuitive Touchscreen Interface** with procedure countdown timer
- **Plug and Play Probe Recognition** upon connection of a therapy cable
- **Easily Accessible Quick Start Guide, Demo and Help Modes** for quick training
- **Custom Treatment Profiles** for multiple physicians allow saving unique settings
- **Actionable Error Messaging**



Future Focused

- **Hardware and Software Upgradeable** for future enhancements
- **Quad Pump Unit** with IV Pole supports future product innovation

AVANOS: THE RF AUTHORITY

Avanos provides a full portfolio of Cooled RF and Standard RF products and accessories to perform multiple modalities.

COOLIEF* COOLED RF PAIN MANAGEMENT SYSTEM

PRODUCT CODE	DESCRIPTION
CRG-ADVANCED	COOLIEF* RF Generator, Advanced - For COOLIEF* Cooled RF, Standard (including single and dual bipolar), Pulsed and TransDiscal Procedures
CRA-QPU-1	COOLIEF* Quad Pump Unit
CRX-CRG-MCRF	Multi-Cooled RF Therapy Cable
CRX-CPU-C1	COOLIEF* Pump Connector Cable
TRX-CRG-TDP2	TransDiscal 2.0 RF Y-Connector Therapy Cable
CRA-SGP	Split Dispersive Electrode (Split Grounding Pad)

COOLIEF* COOLED RF PROBE KITS

PROBES	17 Gauge Probes available in 50mm, 75mm, 100mm and 150mm
ACTIVE TIPS	2 mm, 4 mm, 5.5 mm and 6 mm active tips available for multiple modalities
COOLIEF* KITS	All kits are disposable and sterile. Each kit includes one 17 gauge probe, three COOLIEF* Fluid Delivery Introducers and one tube kit Note: The Transdiscal Kit includes two introducers and two tube kits
MULTI-COOLED KITS	All kits are disposable and sterile. Each kit includes two or three 17 gauge probes, four or six COOLIEF* Fluid Delivery Introducers and two tube kits
SOLD SEPARATELY	Probes and fluid delivery introducers are also available separately

STANDARD RF PAIN MANAGEMENT SYSTEM

PRODUCT CODE	DESCRIPTION
CRG-BASIC	COOLIEF* RF Generator, Basic - For Standard (including single and dual bipolar) and Pulsed Procedures
SRX-CRG-MRF	Multi-RF Therapy Cable
CRA-SGP	Split Dispersive Electrode (Split Grounding Pad)

STANDARD RF PROBES AND CANNULAE

PROBES	Single-Use or Reusable, Durable, Steam-Sterilisable, Colour-Coded Standard RF Probes available in a variety of lengths, gauges and styles
CANNULAE	Colour-Coded Cannulae available in a variety of lengths, gauges and styles

Avanos is committed to challenging the status quo and providing innovative solutions for pain management.



FULL PORTFOLIO OF
COOLED & STANDARD RF
PRODUCTS & ACCESSORIES



HIGH INVESTMENT IN COOLED
RF CLINICAL RESEARCH



MORE THAN 200,000 PATIENTS
TREATED WITH COOLIEF* COOLED
RF IN THE LAST 4 YEARS



>50 PEER-REVIEWED PUBLICATIONS
SUPPORTING USE OF COOLIEF*

GET YOUR PATIENTS BACK TO THE THINGS THAT MATTER, FASTER.

Each COOLIEF* kit is equipped with all the components necessary to conduct a COOLIEF* Cooled RF treatment including the new COOLIEF* Fluid Delivery Introducer (FDI). The FDI enables fluids to be instilled through the port so that the physician can maintain probe placement and reduce instances of repositioning.

