



More satisfied patients. That's the real beauty of Thermage.

ThermaCool™ Monopolar Capacitive Radiofrequency

The one choice for nonablative tissue tightening and contouring


Thermage®
Reshaping Your Future



Proven technology

The Thermage® ThermaCool™ is the only system that uses patented monopolar capacitive radiofrequency (CRF) to deliver proven tissue tightening and contouring results. Unlike light-based and other radiofrequency technologies, CRF deploys uniform, deep heating for immediate, 3-dimensional volumetric contraction of tissue.

Safe

Throughout the procedure, epidermal and upper-dermal tissue layers are continuously cooled by the treatment tip's precision-monitored cooling system. This allows the dermis and subcutaneous tissue to be treated while always protecting the surface of the skin.

Immediate effects

The exclusive CRF technology of Thermage deploys uniform, deep heating for immediate, volumetric contraction of dermal tissue. The result is volumetric tissue tightening in many patients without the downtime associated with other procedures.

More comfortable

During the procedure, the patient continually provides heat-sensation feedback to the physician. Treatment levels are adjusted to provide the patient with a comfortable treatment experience.

More satisfied patients

At the conclusion of the Thermage procedure, many patients observe immediate, noticeable tightening or contouring. Most patients see continued improvement for 2 to 6 months.

Satisfying results

A deeper look at volumetric tissue tightening

ThermaCool is the only system that uses patented monopolar CRF to effectively provide proven aesthetic enhancement. Employing exclusive CRF technology, Thermage creates a deep, uniform electric field that changes polarity 6 million times per second (6 MHz). Heat is generated by tissue's natural resistance to the movement of electrons as a reaction to the rapid change of polarity.

Tissue contraction occurs when heated collagen denatures, causing its triple-helix molecular structure to unravel. As a result, collagen fibrils shorten and contract. By treating a continuous chain of collagen fibrils over a broad treatment area, maximum cumulative 3-D contraction can be attained.

Exclusive to Thermage CRF is the ability to selectively heat fibrous septae using a medium-depth treatment tip. Because fibrous septae provide a path of least resistance through the fat layer, ThermaCool CRF can tighten subcutaneous collagen and provide inward tightening without damaging the fat. Due to inherent limitations with light-based and bipolar technologies, only the Thermage procedure can accomplish this unique clinical effect.

Ohm's Law:

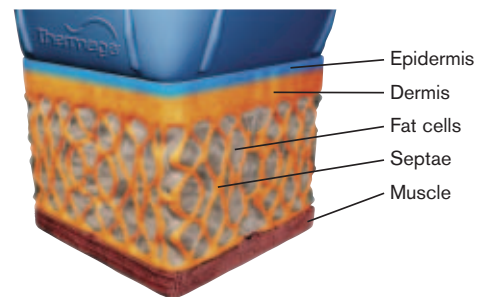
$$E = I^2 \times Z \times t$$

[Energy = Current² × Impedance × Time]



Collagen triple-helix molecule

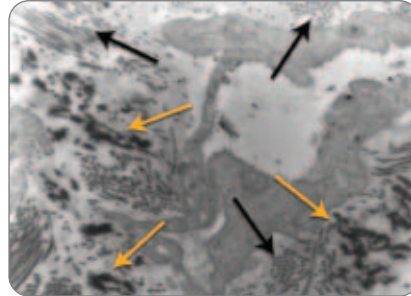
Denatured collagen fibers



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Immediate collagen contraction

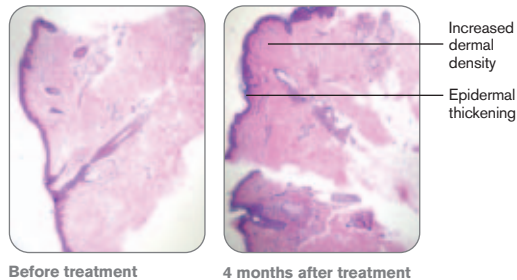
In this transmission electron microscopy image of abdominal tissue, the black arrows indicate normal collagen fibrils. The gold arrows indicate collagen that has been denatured by the heat from the Thermage treatment. In some places, unaffected collagen is next to denatured collagen, owing to the wide range of temperatures at which denaturation occurs (60°C to 80°C). This varying pattern of reaction allows immediate skin contraction while leaving enough unaffected collagen to ensure healthy wound healing.



Increase in dermal density over time

Left: The preauricular tissue of a 46-year-old woman indicates collagen that is loose, rather than densely packed, prior to treatment.

Right: Four months after a single Thermage treatment, dermal density has increased noticeably. The epidermis has also thickened, secondary to the wound-healing process.

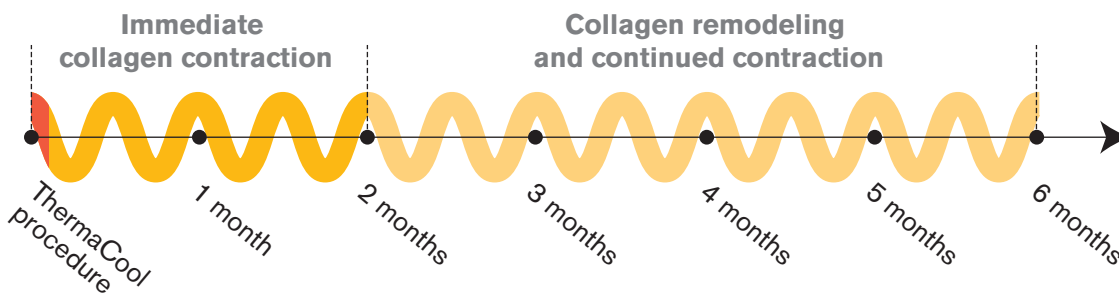


Immediate and long-term effects

The immediate contraction of collagen fibrils provides many patients with visible improvement at the conclusion of the procedure. The majority of patients will see continued improvements for 2 to 6 months.

Longer-term results are also produced as Thermage CRF activates the body's natural wound-healing process and new collagen is formed. This ongoing process takes place in dermal and subcutaneous tissue as collagen remodels and rebuilds. By bolstering and thickening the dermis, the wound-healing response effectively rebuilds a foundation of collagen "from the inside out." The result is a renewed youthfulness of the skin and additional tightening over time.

Immediate effects with 1 treatment





Treats all skin types

Beneath the surface: The science of ThermoCool™

Versatility

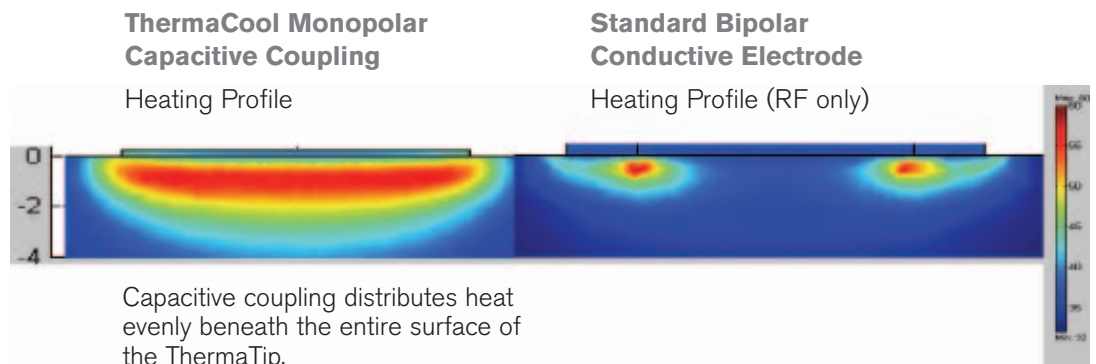
The ThermoCool procedure offers numerous benefits over other nonablative treatments. Unlike light-based therapies, the ThermoCool system may be used on any type of skin or pigmentation. ThermoCool therapy is complementary to other procedures and requires no post-procedure downtime—a timesaving convenience for both patients and practices. Overall treatment time is shortened as well: ThermoCool's CRF-based treatment protocol is designed to attain visual improvements with a single procedure, while traditional nonablative, light-based therapies usually require 3 to 5 procedures to achieve the desired results.

Patented capacitive radiofrequency

Only the ThermoCool procedure provides deep, uniform, volumetric heating by delivering radiofrequency (RF) precisely into the dermis and underlying tissue through its patented capacitive coupling ThermoTip™. This innovative RF technology provides control and consistent delivery of heat into a targeted volume of tissue.

Safety features

Extensive safety features have been built into the ThermoTip technology. Contact sensors placed at each of the 4 corners of the tip surface confirm full contact with the epidermal surface, ensuring the safe application of CRF energy.



Capacitive coupling distributes heat evenly beneath the entire surface of the ThermoTip.

Based on calculated temperature rise in a homogeneous tissue medium with identical tissue impedance assumption for both devices.

Volume heated above 50°C per square cm of treated area is .110 cm³ compared with .0056 for a standard device.

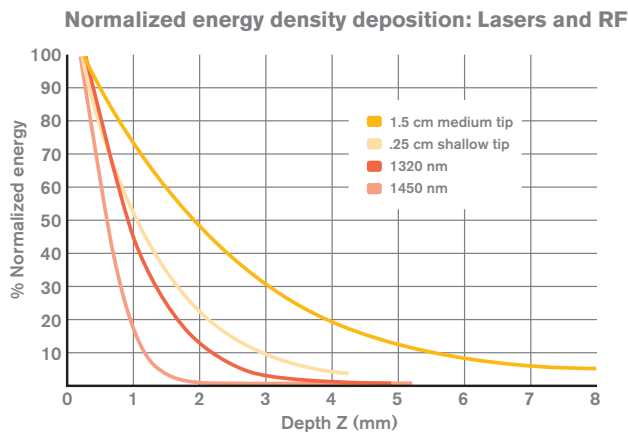
Radiofrequency and heat delivery

- RF current changes polarity 6 million times per second
- Charged particles within the tissue respond to the rapid change in polarity and change orientation at the same frequency
- Dermal tissue's natural resistance to the RF current produces heat

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Deep volumetric heating

Unlike light-based technologies, Thermage CRF provides targeted heating of deep tissue with less deterioration of energy density. At the surface of the skin, all sources have 100% of their intensity. As light-based energy penetrates the skin, it is absorbed and scattered by chromophores, physically limiting the depth of penetration. Thermage CRF is not chromophore-dependent and penetrates much deeper than any light-based treatments, delivering a higher percentage of energy into deep tissue.

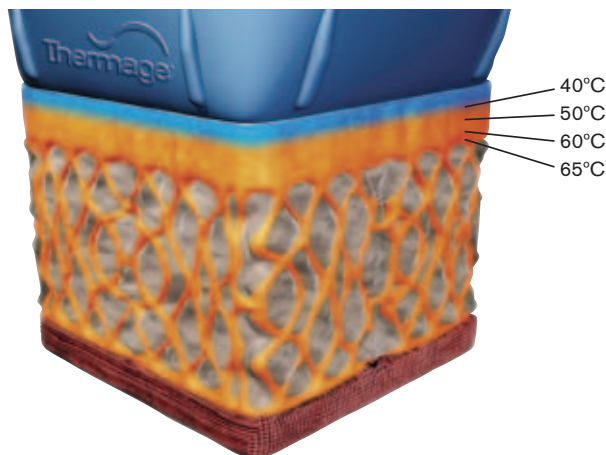


Energy density deposition

ThermaTip Medium and Shallow tips retain a higher percentage of energy integrity at greater depths than the shallowest and deepest targets of common light-based wavelengths. (Model depicted represents homogeneous dermal tissue.)

Safe: The reverse thermal gradient

At all times during the Thermage procedure, the epidermis remains cooled and protected. Metered by a precision valve within the handpiece, an environmentally safe cryogen is sprayed onto the internal surface of the cooling membrane of the ThermaTip device. This allows intense heat to be administered to selected depths of dermal tissue while protecting tissue closer to the surface.





Innovation at your fingertips

Change tips—not technology—to stay ahead

Easy to use, safe, and proven effective, the Thermage system is versatile and upgradeable. A key advantage of ThermoCool over other systems is its single-platform flexibility. A broad selection of tip options allows you to customize treatment appropriately for each patient. With a simple change of treatment tips, Thermage allows you to go from a very shallow or very small treatment area to a very large or deep treatment area. Additional treatment tips now in development will allow for even greater flexibility in customizing individual treatments.

Patient safety is built into every treatment. Each ThermoTip is sterilized prior to shipment. To optimize system performance, each treatment tip is equipped with a programmable, read-only memory chip that ensures single-patient use.

Current and future treatment tips



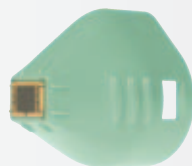
1.5 cm² Shallow



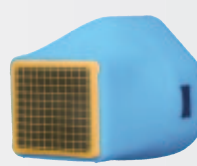
1.5 cm² Medium



1.5 cm² Deep



0.25 cm² Shallow



3.0 cm² Medium

ThermoCool system components

ThermoTip delivery device

- Uniform distribution of RF energy across entire tip surface
- Epidermal temperature sensor programmed into the treatment tip
- Broad tip surface area for 3-dimensional volumetric tightening and contouring of large surface areas
- Four-corner tip-to-skin contact system for safe delivery of RF energy
- Interchangeable tip sizes allow for flexibility in customizing individual treatments
- Fast treatment cycle time (1.9 seconds) reduces overall therapy time

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Handpiece

- Advanced logic board contained within the handpiece monitors information regarding skin temperature, contact, treatment force against the skin, and cooling system functions
- Precision control valve meters delivery of cryogen to cool and protect epidermal surface
- Lightweight, ergonomic design facilitates easy treatment across both large and tightly defined areas



Cooling module

- Houses environmentally safe cryogen coolant
- Metered by a precision valve within the handpiece
- Controlled by onboard microprocessors in the generator and handpiece
- Each 15-ounce cryogen canister can be used for an average of 4 to 6 procedures



Radiofrequency generator

- Simple and efficient to operate; controls within easy reach
- Processes treatment feedback, including temperature, individual tissue impedance, treatment application force, tissue contact, and RF interaction with tissue
- Built-in video monitor displays energy delivered, tissue impedance, RF on-time, and real-time feedback on procedure technique
- Regulated by a Pentium-based, onboard computer
- 6-MHz RF power

Return pad


- Adheres to the patient's lower back to allow a path of travel for the RF current back to the generator



Coupling fluid

- Enhances electrical and thermal contact with the ThermoTip device
- Single-use packaging of fluid to ensure patient safety





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A single investment with multiple opportunities

Avoid obsolescence with upgradeable technology

The Thermage system was created with an eye to your business needs. In a rapidly evolving treatment environment, it's critical that equipment remain capable of implementing new treatment parameters and techniques. As additional clinical applications and aesthetic enhancement treatments are developed, Thermage consistently provides the exclusive advantage of expanded utility. In short, your treatment technology remains competitive *without* additional capital investment.

Partners in your practice's success

Thermage considers each of our customers to be long-term partners, because our success depends upon your ongoing use of the ThermaCool system. Our business model is founded on the principle that as your practice grows your demand for new treatment tip options and clinical applications will increase as well. In turn, our success demands that we anticipate and provide solutions that meet your needs *and* work with your existing platform technology.

Our partnership also ensures that each of our customers receives complete and ongoing training in the proper use of the ThermaCool system, including all newly introduced products, treatment protocols, and techniques. At the conclusion of initial instruction, Certificates of Training are issued to participants, and include all support staff, clinicians, and other practice personnel you have selected for training.

Physicians who receive a Certificate of Training are indicated on the Thermage Physician Locator website database, a complimentary referral service provided to consumers and potential patients who have expressed interest in contacting a Thermage treatment provider.

Thermage can also help you "get the word out" with marketing tools and patient programs to help you build your business.

- Public relations and marketing kits promote the availability of Thermage procedures in your practice
- One-on-one presentations provide guidance in conducting successful patient consultations
- Patient presentations and educational support, including seminars, brochures, and advertising materials promote Thermage within your practice

On-call customer support

Thermage maintains a staff of customer support and sales representatives trained to provide exceptional service and support throughout the life of your ThermaCool system. On a daily basis, we offer technical support, administrative services, and troubleshooting advice to keep each system current and fully operational.

See the beauty for yourself

For more information about Thermage or to contact a representative in your area, please call Thermage Customer Service at **877.782.2286** or visit us online at www.thermage.com.

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