cryo

medicinelaser

skin cooling

feel the difference

Zimmer
AestheticDivision
GOLD STANDARD
IN SKIN COOLING

Zimmer

The new Cryo 7-
Cold air for highest patient comfort

Zimmer
AestheticDivision
50,000
CRYOS SOLD –
WORLD MARKET LEADER

The new Cryo 7:
The skin cooling system designed for superficial laser skin procedures.

The Cryo cold air device by Zimmer Medizin-Systems is intended to minimize pain and thermal injury during laser and dermatological treatments and for temporary topical anesthetic relief for injections.

Unlike other cooling methods, such as contact cooling, cryogen spray or ice packs, the Cryo device can cool the epidermis before, during and after laser energy has been applied, without interfering with the laser beam.

Zimmer MedizinSysteme
Cryogenic Competence, Made in Germany

Cold air cooling is widely used with dermatological laser therapy.

We studied the effect of cold air cooling at different skin temperatures with pulsed dye laser treatments of facial telangiectasia.

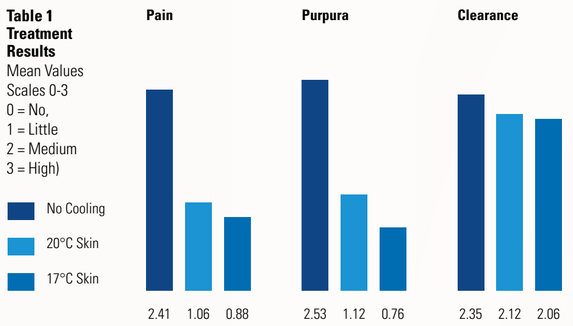
The studies showed the positive effects of skin cooling with cold air on therapeutic outcome and on side effects.

Evaluation of different temperatures in cold air cooling with Pulsed-Dye Laser

Stefan Hammes and Christian Raulin, MD* Laserclinic Karlsruhe, Karlsruhe, Germany

Lasers in Surgery and Medicine 9999:1–5 (2004)

Table 1 Treatment Results
Mean Values
Scales 0-3
0 = No,
1 = Little
2 = Medium
3 = High)



Study Design / Materials and Methods

From September 2002 to February 2003, 17 patients with previously untreated facial telangiectasia underwent a single treatment session with a flash-lamp pulsed dye laser (3.5 J / cm2, 585 nm, 0.45 milliseconds pulse length, 10 mm beam diameter, Cynosure 1 V). The treatment area was divided into three subsections, with varied degrees of cold air skin cooling: no cooling, cooled to 20°C, and cooled to 17°C.

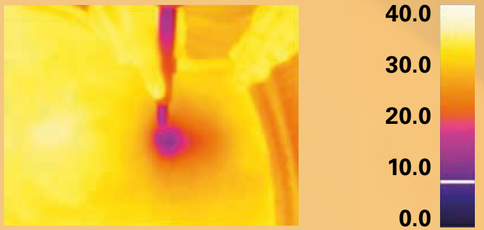
Skin temperature was monitored by a prototype infrared sensor system that controlled the temperature of the cold air stream (Cryo 5).

In a prospective study, we collected data on purpura, pain, clearance, and patient satisfaction on numerical analog scales (NAS) from 0 (none) to 3 (high).

Results

Without cooling, purpura (2.53), pain (2.41), and clearance (2.35) were rated medium to high. Cooling to 20°C reduced purpura (1.12) and pain (1.06), whereas the clearance (2.12) was only slightly effected. Cooling to 17°C reduced purpura (0.76) and pain (0.88) even more. The clearance (2.06) was lowered marginally. Most patients preferred cooling to a skin temperature of 20°C.

Thermal Image



Recommended temperature range between 10°C and 15°C.

Conclusion

During laser therapy treatment of facial telangiectasia, the use of cold air can significantly reduce side effects and increase patient satisfaction, while only slightly affecting clearance.

Cooling the skin to a temperature of 20°C proved to be a well-balanced course. For practical application, we recommend cooling the skin to a level that can be easily tolerated by the patient and then increasing energy densities.

Pain reduction during skin injections by cold air application

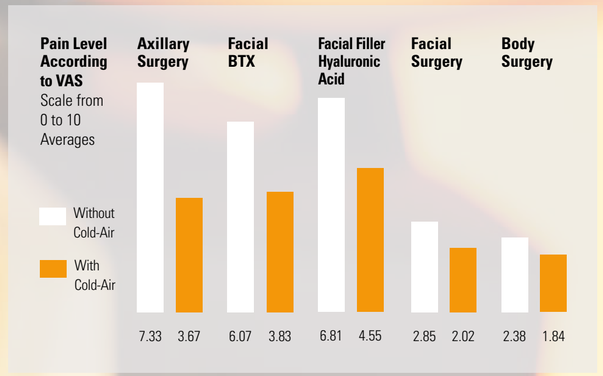
Dr. Markus Steinert, Laserklinik Dr. Steinert, Biberach, Germany

Material and Method

A treatment with and without cold air application was conducted in a side-by-side comparison.

The force of the air current was set to level 5 on the Zimmer Cryo 6 device. (The device offers level settings from 0 to 9.)

Each patient monitored himself/herself as the treatment was performed symmetrically on both halves of the body. Cold air was applied only on one half. Injection needles were then applied, either to inject BTX, Hyaluronic acid or a local anesthetic. Pain from the needle was subjectively measured by the patient by means of a visual analog scale from 1-10. (1 indicated no pain and 10 indicated the most severe pain imaginable.)



During the total duration of the treatments (approx. 1 – 2 minutes), level “5” cold air was applied using the Zimmer Cryo 6 device.

Cool air was delivered through a nozzle opening of 5 mm.

The distance between the cool air nozzle opening and the skin surface was 3 cm on average.

Results

All patient groups had significantly less pain after the treatment with cold air than without cold air. This also corresponds with the well-studied pain reduction effect of cold air. Cold air relieves pain reliably with cosmetic dermatological treatments. Especially significant was the pain relief during non-surgical injection treatments with Botulinumtoxin and Hyaluronic acid fillers. Cold air effectively reduces the pain and allows for painless injections of BTX, Hyaluronic acid or a local anesthetic.

Cryo 7 –
Completely new. Quite familiar!

-30°C

Ease of Use – Redesigned

Success right from the "start": The Cryo 7 is operated using a brilliant, high-resolution, 10-inch touchscreen. Custom programs can be stored. All of the important operating elements are clearly displayed and easy to reach, thanks to the taller, ergonomic design.

An optional supporting arm facilitates hands-free operation. The lightweight hose can be connected to a variety of nozzles and laser handpieces via adapters. The user can easily control the air stream.

Energy - and Cost-Efficient

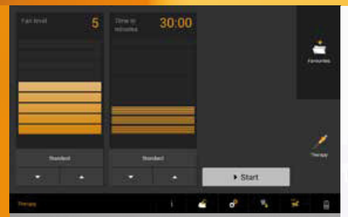
There are no consumables associated with the new Cryo 7. The intelligent device self-monitors the defrosted water level and a defrosting function ensures smooth operation. The readily accessible air filter can be easily replaced when needed.

A new standby mode further improves the device's energy efficiency. This hardy unit is designed for reliable, all-day operation.

Numerous technical innovations enable even quieter operation of the Cryo 7, facilitating a comfortable treatment environment for patients and medical staff.

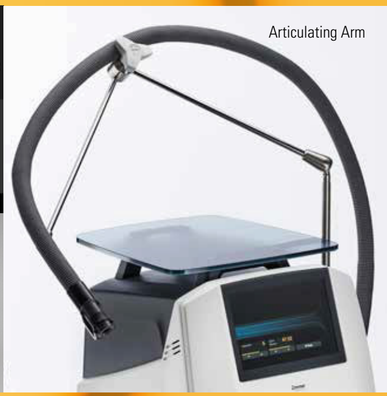
The Advantages at a Glance

- Superior technology – proven in practice. Over 50,000 units strong globally... and counting
- Very simple operation and safe application
- Modern, ergonomic design and quiet operation
- Improved energy efficiency and no consumables
- Practical glass shelf ideal for laser, IPL or suction systems
- Quieter operation for patient and staff comfort
- Flexible connection to a variety of adapters
- Practical holding arm for easy treatment



Laser Adapter and Clips

Articulating Arm



Options

Zimmer Medizinsysteme

cryo

Technical Data

Delivers Cold Air As Low As	-30°C
Power supply	100-120 V / 50-60 Hz
Power input max.	1.5 kW
Stand-by function	50 W
Protection according to IEC 60601-1	ClassI, Type B
Medical device	Class IIa
Treatment hose length	8 ft. 2 in.
Therapy air flow	9 levels
Housing dimensions	41.7" H x 19.7" W / 22" L
Weight	132 lbs. (includes glass shelf)

Zimmer MedizinSystems
3 Goodyear, Suite B
Irvine, CA, 92618
(800) 327-3576 office
(949) 727-2154 fax
info@zimmerusa.com
www.zimmerusa.com
shop.zimmerusa.com

Zimmer
AestheticDivision