

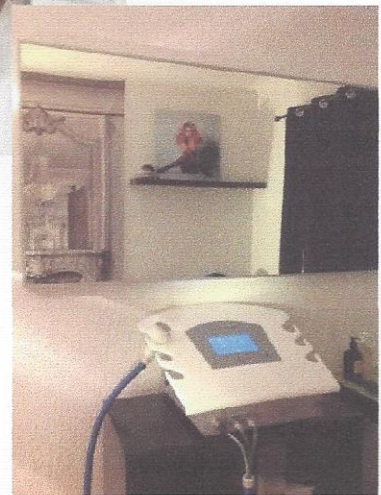
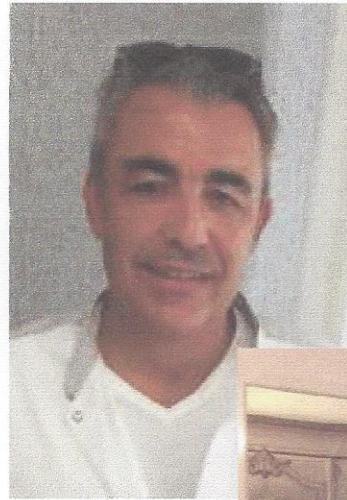
**Claude Marengi, physiotherapist and osteopath  
in Cannes**

The office is located 50 meters from the Croisette behind the Miramar Palace.

Claude Marengi physiotherapist DE, Osteopath of School of Mainstone (Gbr), specialist in child and adult respiratory physiotherapy (DU Paris V), Sports Physiotherapy (followed professional athletes), nutrition (chromo expert), physical preparation, Power Plate, home care, Cryolipolysis (Cryo 21) since early 2014 the first center in Cannes.

**Qualifications / Training**

- Kinesitherapeute DE
- Osteopath DO
- Specialist in child and adult respiratory physiotherapy



**My experience with Cryo 21**

*"It is more than two years since I use a revolutionary device of Cryolipolysis, the Cryo 21, that thanks to the cold is able to promote a thermal shock.*

*The thermal shock will have an effect:*

- *anti-inflammatory*
- *vasomotor*
- *neurologic*
- *pain relief*
- *Reduction, condensation and death of fat cells by apoptosis, which will be eliminated by natural ways in 15 days*

*The device is in the form of handle.*

*It is very easy to use and allows a very precise and safe treatment as it is not a "hands free" device. The sessions last 30 minutes.*

*My results on tendonitis, muscle contractures, various inflammations, hematomas and drainages were surprising.*

*The results are rapid and long lasting in most cases.*

*Also the most value with the anti cellulite treatment (apoptose) is not negligible*

**21Equipment S.r.l.**

*Today, I consider this device suitable for health professionals because significant changes for physiotherapists have been tested and approved with new evolutionary programs (upgrade) in order to make it more performing."*

Claude MARENGHI

## The effects of Cryo 21 in physiotherapy

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Cryo 21, in addition to his work in aesthetics, has also been studied to help massage therapists, chiropractors, physiotherapists to relieve the annoying symptoms resulting from and contusions.

### **CRYOTHERAPY:**

It is the therapeutic application of cold obtained by different ways of ice, as cold water, Cryo 21, snowy carbonic acid, and so on ...

The aim is to mitigate the feelings of discomfort, to reduce swelling, to block uncomfortable nerve sensation coming from joints and muscles.

Today how to practice cryotherapy has evolved with the development of our physiological knowledge, allowing us to better understand and better define these application fields and modalities.

**Cold action:**

Analgesic Action (Pain therapy)

- *Gate control effect*: it stimulates Ab fibers and it creates an inhibition to the annoying feeling of pain by an "anesthetic action" on the treated area.

OBTAINED BENEFITS:

- Reduction of nerve conduction
- Reduction of nociceptors excitability
- Decrease in muscle spasticity (between 7 ° and 15 °)
- Spray and Stretch effect

Anti inflammatory Action

- Inflammation reduction on the muscles and tendons of the human body.

For example:

1. Tendinitis
2. Muscle Contractures

The effect is given by the reduction of chemical mediators responsible for inflammation and also it is given by vasoconstriction.

Vasomotor Action

- It regulates bloodstream in different parts of the body, increasing blood circulation, as a result of thermal shock.

**Problems to be treated:**

- Muscle contractures
  - Swelling
- Attenuation of the discomforts of muscle and joint
  - Support to lymphatic and venous circulation
    - Muscle relaxation

### Concept of thermal shock:

This is a marked lowering of the body temperature in the shortest time.  
Temperature which in normal conditions is around 34 ° C.

### The action of cryotherapy

The action of ice in contusions and skeletal-muscle traumas is to decrease the perception of pain, thanks to the cold analgesic effect (even if temporary) on treated area:

The hypothermia (lowering of body temperature) on skin level in fact prevents the transmission of pain impulses.

Furthermore, the ice was and is still used to relieve swelling: the anti-edema effect (edema and swelling reduction) is related to induced vasoconstriction, which prevents pouring of blood into the tissues. However, the muscles cannot stay contracted at low temperatures: also in this case, ice is used to avoid muscles contractures, because when they are in contact with a cold source, they get relaxed. (Antispasmodic and muscle relaxant action).

The cryotherapy practice can affect different parts of body; for this reason is a technique with many aspects. On vascular level, cryotherapy causes constriction of superficial blood vessels, followed by next and almost immediate systemic vasoconstriction (This happens because some nerve reflexes are triggered transmitting cold in other districts).

This effect is stable until reaching 15 ° C (as a local body temperature). Below this limit the effect is opposite: a vasodilation it is established and nerves are no longer able to transmit the signal of cold (block of nerve fibers). Vasodilation, in fact, is a process of self-protection body, a defense that the system put in place to avoid blockage of blood circulation.

The cryotherapy acts on nervous level decreasing the speed of signals transmission. Cryotherapy exerts an action even at metabolic level: following the application of cold, tissue metabolism slows down, due to the fact that metabolic-biochemical reactions are weakened.

Finally, at muscular level, cold therapy is useful to relax tissue and muscles. Also in this case, the cryotherapy effect is double and complementary: the muscle can respond with an increase or a decrease of tone. This depends on the cold application time on the affected area: if the application of the ice is of short duration there will be an increase of muscle tone, the effect will be opposite in case the application is prolonged.

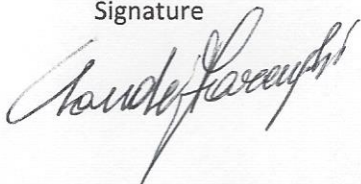
#### Cold therapeutic effects:

- Analgesic effect
- Action able to relieve muscle contractures
- Anti-edema effect
- Anti-inflammatory activity

#### Cryotherapy biological actions:

Cryotherapy works at several levels: vascular, metabolic, muscular, nervous.

Signature



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