



KaasenPro

by TruCryo

**Kaasen and KaasenPro booklet.
Overview of the supporting studies
and benefits of localised cryotherapy
in the field of physiotherapy,
osteopathy and sports therapy.**

TREATMENT OBJECTIVES



Target temperature:

Target temperature will differ from client to client. Each treatment should be treated as an individual case. Assess the client's goals and aim to half the start temperature.



Average Time:

Select based on size of area, each area for 30-60s seconds should be about A5 sized. Time can be selected on the device screen.



Nozzle selection:

Select based on composition of area. If there is more mass (fat, muscle, bone) then the area should be able to tolerate more pressure comfortably.



TREATMENT OBJECTIVES

PAIN AND MOBILITY

▲ 15°C (59°F) ▼ 4°C (39°F)
30-60S PER AREA
HIGH PRESSURE NOZZLES

DEEP MUSCLE/JOINT PAIN

▲ 6°C (43°F) ▼ 4°C (39°F)
30S PER AREA
VERY HIGH PRESSURE NOZZLES

POST-SURGERY INFLAMMATION

▲ 15°C (59°F) ▼ 4°C (39°F)
30-60S PER AREA
LOW PRESSURE NOZZLES

SCAR LIGHTENING

▲ 15°C (59°F) ▼ 4°C
(39°F) 60-90S PER AREA
HIGH PRESSURE NOZZLES

COLD THERAPIES



COLD COMPRESS

Targets pain and injuries directly with cold. Moisture quickly builds up and eases pain and inflammation only temporarily.



ICE BATH

Non-portable method that treats whole body regardless of needs. Medical limitations and risk of hypothermia. Cannot monitor conditions safety.



CRYO CHAMBER

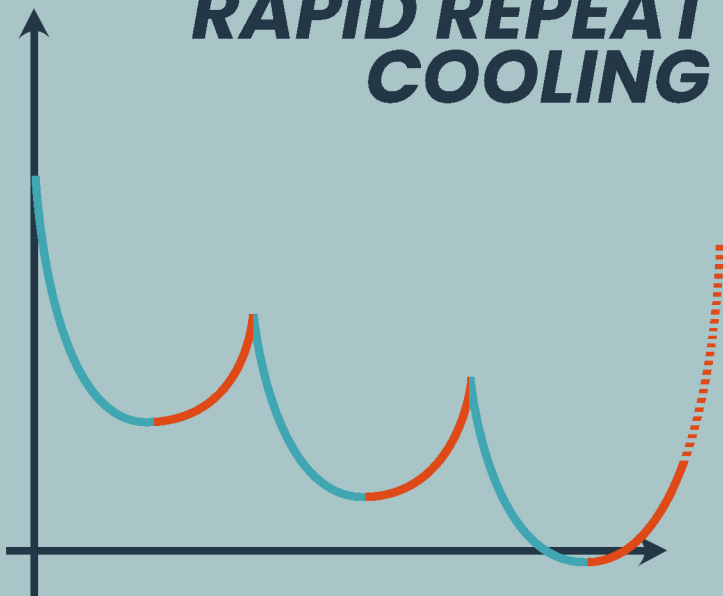
Huge cost, large and non-portable equipment. Uses nitrogen which is hard to find or electricity which is less effective and costly.



TARGETED CRYOTHERAPY WITH KAASEN

Targeted cryotherapy is the most effective way to cool the skin and penetrate cold into the muscles. Not only can you target injuries and pain, but you can also use powerful spray nozzles or diffusers to cool larger areas after exercise.

RAPID REPEAT COOLING



Rapid Repeat Cooling with Kaasen



Body temperature self-regulation

Kaasen cools skin and underlying tissues to optimum temperature in under 30 seconds. Rapid, effective treatments without the need for post-treatment warming.

Body temperature is **self-regulated**; during warm-up periods, massage and other physio treatments can be employed to break up repeat coolings.

Rapid repeat cooling allows for a larger safe drop in temperature within a single treatment.

TREATMENT EXAMPLES

HEALTH + WELLBEING

Boost mood and increase energy by releasing dopamine + norepinephrine

SPORTS THERAPY

Improve sports related muscle and joint pain

ACUTE INJURIES

Promote the healing process in acute injuries

CHRONIC INJURY

Reduce symptoms of chronic pain and injury

PHYSIOTHERAPY

Intervene early on injuries and rehabilitate

GENERAL WARM-UP

Prevent muscle tenseness and strains before exercise

GENERAL COOL-DOWN

Ease any stress on the muscles and joints caused by exercise



“

I like the quick delivery and rapid results from the treatment on my patient for pain and inflammation management. Kaasen has provided me with another avenue to treat people to help them with rehabilitation.

– **Dave Roche, Roche Injury Clinic, Ireland**

”



Using localised cryotherapy to improve range of motion and mobility clinical trial study

Chirag Patel BSc (Hons), HCPC, MCSP

Introduction

In recent years, targeted localised cryotherapy has emerged as a groundbreaking technique for reducing pain and helping recovery. This case study aims to determine if using a rapid, repeat cooling protocol with localised cold temperatures could significantly improve an athletes range of motion and increase mobility. This study also aimed at improving the punching range before warming up and without pre-workout stretching.

Conclusions

This case study underscores the potential of localised cryotherapy as a powerful tool for those looking to improve their physical capabilities. Following the cooling protocol was found to complement stretching pre workout and could help prevent injury. Post workout due to the immediate vasodilation of blood vessels in response to the rapid cooling offers convincing evidence that with strategic application, cryotherapy can be an effective solution for increasing mobility and range of motion through natural physiological processes.



Localised cryotherapy case study in managing pain and inflammation

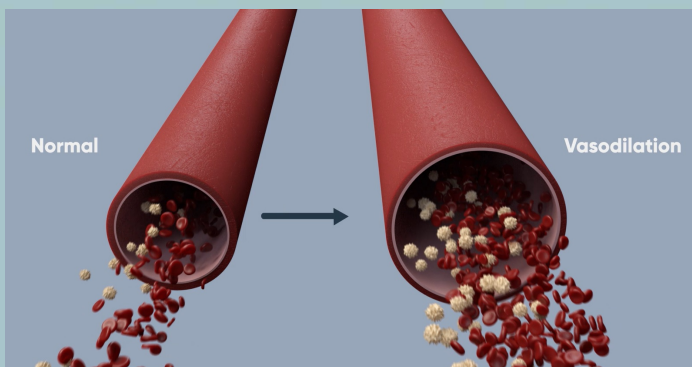
David Jenkins BSc (Hons)

Introduction

An open prospective study was conducted in patients, with several types of pain. At entry, the patients recorded a pain score, marked on a number system 10 being the worst and 0 the least. There was also a mobility score on the range of movement before and after treatment. This measure was repeated for comparison at the end of the treatment session.

Conclusions

Between May 2017 and June 2017 26 patients were treated for pain. The area of pain was caused by various conditions such as sprained ankles, muscle injury, arthritis inflammation in the joints, sciatica and degenerative conditions. All of the patients had significant improvement in pain relief and expressed further treatments for long term relief. Kaasen cryotherapy is a modern non-pharmacological invasive technique to treat pain in many people and was evident that CryoStimulation is very effective application for it



Localised cryotherapy aim to reducing swelling and speeding up recovery.

Patricia Hegharty – Massage Therapist, Level 5
Advanced Sports therapist

Introduction

The study was conducted on patients, with several types of swelling especially on the ankle and knee joints

Conclusions

Between January 2018 and February 2018, 5 patients were treated for swelling and inflammation reduction. The area of swelling was caused by various conditions such as sprained ankles, or inflamed joints due to excessive use and various underlining conditions that causes swelling and inflammation. All of the patients had significant improvement in reduction of swelling and expressed further treatments for long term relief. Cryotherapy is a modern non-pharmacological invasive technique to treat swelling and inflammation in many people and was evident that CryoStimulation is very effective application for it.



Pain in the elderly: Prospective study of hyperbaric CO2 cryotherapy (neurocryostimulation)

Geriatrics Department 4, E´mile Roux Hospital,
Limeil-Bre´vannes 94450, France

Introduction

Hyperbaric gaseous cryotherapy using CO2 is an innovative analgesic treatment that is generating considerable interest. Microcrystals of dry ice at very low temperature are sprayed under high pressure on the painful site. The result is a sudden, quasi-immediate drop in skin temperature that induces far greater analgesic, anti-inflammatory, vasomotor, and muscle relaxing effects than conventional methods of cold application. The objective of this study was to conduct a prospective evaluation of the analgesic effect of hyperbaric CO2 cryotherapy in older patients.

Conclusions

The response to neurocryostimulation is greatest in patients with acute musculoskeletal pain and increases with earlier treatment. However, our results show that other types of pain, including chronic pain, respond significantly to neurocryostimulation. The effect may be transient, most notably in chronic pain, requiring repeated sessions, which are often requested by the patient. Gaseous cryotherapy with CO2 (neurocryostimulation) overcomes many of the limitations of conventional cryotherapy. Localised cryotherapy is an innovative method in which high pressure and cold temperatures are combined to magnify the analgesic and anti-inflammatory effects of cryotherapy. Two main characteristics differentiate neurocryostimulation from conventional cryotherapy: the large magnitude of the temperature drop and the short time needed to achieve it. As a result of these two characteristics, the reactive arterial and capillary vasodilation is more marked and occurs at deeper sites than with conventional methods.

<http://france.elsevier.com/direct/BONSOI/>

Evaluation of gas cryotherapy in the treatment of Tendinopathies

E. Brunet-Guedj, B. Brunet, J. Girardier, E. Renaud, M. Daubard, R. Manigand, Department of Sports Medicine, Edouard Herriot Hospital, 69437 LYON

Introduction

A randomized comparative trial in athletic patients was undertaken to evaluate the efficacy of gas cryotherapy in the treatment of acute and chronic (present for more than two months) tendinopathies.

Conclusions

The use of cryotherapy in recent acute tendinopathies provided more satisfactory and faster results than standard treatment, with 75% excellent and good results, without any adverse effect being seen. Results on pain were fast, and 5 out of 8 patients were able to restart their sport by the end of treatment without any relapse afterwards. In contrast, in chronic tendinopathies, cryotherapy, in the few cases in which it was used, showed no evidence of efficacy greater than that of standard treatment, though the latter lasted longer. At any event, conclusions must be prudent because of the small number of cases, such that no statistical study was possible. It can be concluded overall that this is certainly a technique to be used first line in the treatment of acute tendinopathies, because of its rapid efficacy and absence of adverse effects. As far as chronic tendinopathies are concerned, more refined analysis in large series of cases is required before any final conclusion can be drawn

EDOUARD HERRIOT HOSPITAL - Place d'Arsonval - 69437 LYON

The influence of cryotherapy on pain and inflammation following arthroscopy of the shoulder

Prof Dr Romain Meeusen, Dr Frank Handelberg,
Laurence Framhout, Stéphanie Daems, Vrije
Universiteit Brussel, Belgium

Introduction

Objective: To examine the influence of cryotherapy on subacromial temperature, pain and inflammation in the postoperative shoulder. Participants: Twenty patients undergoing diagnostic shoulder arthroscopy. Intervention: Cold was administered via a second group received a 'placebo' treatment, while a third group served as control. Visual Analogue Scores (VAS) were used to obtain pain scores and a patient-controlled analgesia system (PCA) was applied to standardize post operative medication. C-reactive proteins (CRP) were measured to get an idea of the inflammatory reaction.

Conclusions

According to the results of this study, cryotherapy has a positive effect on reducing post operative pain. Both VAS values and medication use were lower in the experimental groups. CRP measurements did not reduce significantly due to cryotherapy, but it seems that cryotherapy used suppresses the inflammatory reaction, as shown by one case with acute gout. These results indicate that postoperative pain is influenced significantly when cryotherapy is applied.

Vrije Universiteit Brussel, Belgium

" This incredible device enhances the therapies I practice and has greatly improved some of the treatments I undertake with my elite athlete clients. Using cryotherapy before the warm-up exercise has played a part in preparation for training with my pro fighters I work with, making muscles more supple and increasing endurance. The timing of these sessions has been key. There is an optimum time for the application of cryotherapy in which the treatment is enormously beneficial for maximising recovery and athletic performance. "

**Chirag Patel - Clinical Director @ MyPhysio
MyPhysio Croydon**



Prepare and Improve Your Performance
No Downtime · Non-Surgical · Non-Invasive

Regular targeted cryotherapy can:

- Improve performance
- Increase stamina
- Improve mobility
- Reduce muscle fatigue
- Reduce pain immediately
- Speed up recovery
- Reduce chances of injury
- Boost your energy

**Add
cryotherapy
to your
weekly
regime**



COMBINATION TREATMENTS

Complementary treatments can be combined into packages that can enhance results and provide a more holistic and beneficial session for clients.



TruCare CBD creams and balms are the perfect addition to your client's pre and post-workout routine.

With high concentration CBD and a myriad of anti-bacterial and anti-inflammatory ingredients, TruCare is perfect to incorporate into your client's treatment programme along with cryotherapy - which also aims to target pain and inflammation.



THC FREE



LAB TESTED



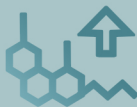
CRUELTY FREE



**PROFESSIONAL
GRADE**



VEGAN



**HIGH CONCENTRATION
CBD**

shop.trucare.co.uk

@tru.care
01743 291 456
stop@trucare.co.uk

GET IN TOUCH

**FOR MORE INFORMATION,
REFERENCE YOUR TRUCRYO
PRINTED MANUALS AND VISIT
THE TRUCRYO AND KAASEN WEBSITES.**



TRUCRYO LIMITED

Unit 51, Battlefield Enterprise Park,
Shrewsbury, SY1 3FE, England.



Phone us: 01743 213080



Email us: support@trucryo.com



Find out more: www.kaasen.co.uk



DON'T FORGET TO FOLLOW US!

@tru_cryo

