



ARB Systems Proyectos electrónicos SL, founded in 2006, is a Spanish company dedicated to research, Fout and innovation, as well as manufacturing in the fields of biotechnology, medical equipment and advanced aesthetic equipment.

*In recent years, ARB Systems has specialized in the research and development of equipment aimed at the medical sector, developing devices as **BRS for the treatment of bladder cancer** for the firm Combat Ltd, or the **PRS Equipment, for Ovarian cancer treatment, Colorectal cancer, Gastric cancer**, for the company Biosurgical SL, among some others...*

Investigation, development, manufacturing in the medical-aesthetic sector



*Some of the products developed by ARB Systems
for medical /hospital sector like:*

Laboratorios Cair, Galmaz Biotech, Combat ltd, Biosurgical, Celsius medical, Haake Alemania, ...



*Normothermia products line, for heating blood,
fluids...*



*Chemo-Hyperthermia Treatment Equipment for the
treatment of Bladder cancer, Ovarian cancer,
Colorectal cancer, Gastric cancer, ...*

THERAPY COOL

Well-being our reason for being



Worldwide Novelty
International Patent



Beauty Treatment, physiotherapy, sport treatments

DRY BALNEOTHERAPY

Contrast technology at the
service of beauty and well-being



THERAPY COOL



Therapy Cool Origin

*A company like **ARB Systems Proyectos Electrónicos SL**, specialized in the design of equipment for the medical sector and a team of professionals, with more than 20 years of experience in the use and design of balneotherapy treatments with **Applications of Thermal Contrasts**, has made possible to develop a product like **Therapy Cool**.*

In 2006 and after years of work in the world of balneotherapy, we started the development of Therapy Cool, a device based on the techniques and ancestral knowledge of balneotherapy treatments, with the aim of making it available to beauticians and Physiotherapists, really effective treatments and that until now could only be performed in spas and thermal facilities.

*Four years of research and development, as well as the realization of countless trials and treatments, resulted in **Therapy Cool**, a high-tech device, extremely simple to use and designed for the realization of beauty and physiotherapy treatments with thermal contrasts, (Dry balneotherapy), a device designed to be installed in any cabin and that **only needs a plug** to be operated*

The first manufactured equipment left our facilities in the year 2010, at the moment there are about 200 equipment installed in different countries of the world.

Therapy Cool is manufactured only on request and completely handmade

THERAPY COOL



Our work system

The Kneipp Method

*Sebastián Kneipp, called "the doctor of the water", systematized the use of the water as therapeutic element. **The base of his treatments was the applications of thermal contrasts, (successive applications of heat and cold).***

The success of its procedures does not reside properly in the water, but in the clinical result of applying on the body successive thermal stimuli (heat-cold), these stimuli produce, above all, the blood vasoconstriction, from the **cooling of the hot body in contact with water and as an immediate reaction to heat vasodilation, which causes the contribution of a greater blood flow and oxygenation to the whole organism, stimulating the function of all the organ systems, among them the stimulation of the nervous system, which regulates the amount of neurotransmitters such as dopamine, adrenaline and serotonin.**

On the other hand, the great contribution of blood flow produced by contract applications at all levels, **significantly increases the level of cellular oxygenation** and helps the cleaning and elimination of pathogenic substances.

***A new concept of beauty,
based on enhancing the natural mechanisms of our organism***

Treatments with thermal contrasts

Fitness and physiotherapy treatments

- *Regain your vitality and energy*
- *Rehabilitation / Physiotherapy*
- *Injury treatment*
- *Pre and Post Workout Treatments*
- *Preparation and treatment of high performance athletes*
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Treatments with cold

- *Sports Cryo Therapy*
- *Treatment of injuries*
- *Treatment of inflammations*
- *Post-operative injuries*
- *Bruises*
- *Sprains*
- *Twists*
- *Etc.*

Heat treatments

- *Muscle tears*
- *Contractures*
- *Chronic inflammatory processes*
- *Treatment of injuries*
- *Etc...*



A new concept of slimming and firming

Therapy Cool Equipment

Heat treatments

Physiotherapy treatments

- *Cryo Sports Therapy*
- *Treatment of injuries*
- *Rehabilitation treatments*
- *Treatment of inflammations*
- *Post operative injuries*
- *Tears of muscle fibers*
- *Treatment to reduce pain*
- *Treatment to reduce muscle spasm*
- *Bruises*
- *Sprains*
- *Twists*
- *Etc.*



Flexible and adaptable exchangers to treat any area, exclusive of Cryo Therapy

THERAPY COOL *In the sports field*



High performance athletes

*Its most notable effects for **athletes in general and for high performance's in particular**, are that used before the practice of the sport, **increases its performance, its resistance to stress, prepares the muscles preventing injuries and increases alertness**, ... and if the treatment is performed after exertion, **it decongests, relaxes, reduces muscular and nervous tension** ... actually in the high competition **can be the Plus that differentiates them from the others..***

*Basically the effect that the treatments produce, is the **contribution of a greater flow of blood and oxygenation to the whole organism**, provoked by the vasodilation and the successive vasoconstriction that produce the thermal contrasts, this **stimulates the function of all the organic systems**. Among them is the **stimulation of the nervous system**, which regulates the amount of neurotransmitters such as **dopamine, adrenaline and serotonin..***

*Furthermore the great contribution of blood flow produced by contrasts applications at all levels, significantly **increases the level of cellular oxygenation...***

Enhances vitality and energy



Effects of Therapy Cool and Crio Therapy treatments in the sports field and in physiotherapy treatments

*Both treatments with Applications of Thermal Contrasts, such as treatment with heat or cold both **Theray Cool**, as the equipment **Cryo Therapy**, have important effects in the treatment of injuries, muscle aches, back pain, contractures, inflammations, rehabilitation treatment and physiotherapy, in short in all the treatments of the locomotor apparatus in which the applications of contrasts and the cold, have a very important **restorative effect** and **thet act to significantly accelerate the recovery processes** of patients, allowing them a quick return to normal activity, **both work or sports...***

The heat relaxes the nervous system and promotes muscle relaxation, is antispasmodic and analgesic, .. “, but Heat / Cold applications have much deeper effects on the factors that cause pain.

*Basically the effect that the treatments produce, is the **contribution of a greater flow of blood and oxygenation to the whole organism**, provoked by the vasodilation and the successive vasoconstriction that produce the thermal contrasts, this **stimulates the function of all the organic systems**.*

***THERAPY COOL** in the sports field*



Effects of Therapy Cool and Crio Therapy treatments in the sports field and in physiotherapy treatments

On the other hand, the great contribution of blood flow produced by contraceptive applications at all levels, notably increases the level of cellular oxygenation, the regeneration of damaged tissues, nutrition and strengthening of tissues and muscles and reduces inflammation and muscle spasm....

The analgesic effects of controlled heat applications on the organism are well known. The heat provided by Therapy Cool treatments, relaxes the nervous system and promotes muscle relaxation, is antispasmodic ... ", but the applications of Heat / Cool, (thermal contrasts of Therapy Cool), have much deeper effects on the factors that originate the pain.

Behind a pain there is undoubtedly an inflammation accompanied by a degeneration of the affected tissue. The use of thermal contrast applications, has very remarkable effects on: cell nutrition, elimination of pathogens, (thereby obtaining a clean tissue and in general of the entire blood flow), activates tissue proliferation and restoration, has very important anti-inflammatory effects, as well as a bactericidal action produced especially by heat applications, ...

***THERAPY COOL** in the sports field*



Physiological effects of heat applications

The heat increases the elasticity of the tissue, also the application of heat significantly increases the blood circulation in the treated area with what is achieved on the one hand the elimination of waste and on the other a very important increase in the amount of nutrients and oxygen in the treated tissues, which produces a significant increase in metabolism in the treated area.

The application of heat accelerates the healing of tissues in the treatment of injuries such as sprains, muscle contusions, tendinitis, ligament injuries, etc. ...

It must be kept in mind that the application of heat is especially useful in the treatment of injuries when the acute phase has ended. (Its application in the acute inflammation phase is not recommended).

The application of heat is very effective to increase mobility and elasticity in the joints, (ankle, knees, elbow, wrist, etc ...), after an injury and always after the acute phase of inflammation and never forcing beyond from pain. (apply 10/20 min of heat in the area to be treated before starting the stretching exercise of the joint)

The recommended application, in normal conditions is between 15 and 20 minutes, if the intention is to reach deeper structures, muscles, ligaments, tendons, in that case it will be necessary to prolong the exposure time.

THERAPY COOL in the sports field



Physiological effects of heat applications

Analgesic action

It is based on the action of heat on sensitivity and especially on painful sensitivity, which is why it is indicated as an analgesic and sedative agent. The analgesic action is obtained in a few minutes and is more or less intense, depending on the degree of temperature, time of application and personal conditions of the process or the patient. The analgesic action manifests itself in all painful processes. (It helps in a very significant way to provide the patient with a feeling of relaxation).

Anti-inflammatory action

Helps to treat inflammations in a chronic state, is based on the set of effects on circulation, blood, local metabolism, etc., encompassing hyperemia. Except for some cases of very acute inflammation (appendicitis), in other cases of superficial inflammations, thermotherapy is a therapeutic resource to be used in conjunction with other procedures.

Anti-spasmodic action

The application of heat acts on the spasms and contractures of skeletal muscles and on spasmodic states of smooth muscles and visceral organs. Hence its indications in contractures and muscle spasms such as torticollis, lumbago, polio, visceral, gastric and vesicular pain, and colic pains of all kinds

***THERAPY COOL** in the sports field*



Physiological effects of heat applications

*Therefore, the **biological effects** derived from the application of heat include a marked increase in the metabolic rate, increased blood supply, increased tissue oxygenation, reduced nervous excitability, myorelaxing effect, analgesic and anti-inflammatory effect, decrease of blood pressure, and increased sweating.*

Both cold and superficial heat have therapeutic effects. By different mechanisms both can break the pain-spasm-pain muscle cycle, reduce inflammation and significantly speed up the recovery process.

It is known that heat increases the compliance of collagen tissues, decreases joint stiffness, reduces pain and inflammation, increases blood flow and relieves muscle spasm.

Cryotherapy in sports and rehabilitation is widely used for various purposes and with very positive qualitative results. There are effects in the reduction of pain, metabolism, oedema, inflammation, muscle spasm and facilitates and accelerates the recovery process after an injury.

***THERAPY COOL** in the sports field*



Physiological effects of heat applications

The analgesic, relaxing and anti-inflammatory properties of cold are well known, since it slows down nerve transmission.

The application of discontinuous and intermittent cold, immediately after an injury (especially in acute injuries), decreases the effects of inflammation and tearing of muscle fibers.

Cryotherapy is very effective in the treatment of any acute inflammatory process, caused by any type of injury, including postoperative injuries, those produced by surgery, those inflammations produced by rheumatic processes, bruises, sprains, among others.

In general we can say that the cold acts mainly producing four effects:

***THERAPY COOL** in the sports field*



Physiological effects of heat applications

Vasoconstriction:

Produced by cutaneous and deep tissue caloric loss that occurs with the cold. This vasoconstriction is produced by a direct action and by a reflex action by means of spinal reflexes. The vasoconstriction decreases the blood supply, (It slows down the cellular metabolism, which slows down the production of inflammatory chemical mediators). It is considered the main mechanism to reduce swelling and haemorrhage after trauma and to reduce oedema in inflammatory reactions, which decreases the initial severity of the lesions. The vasoconstriction to be followed by a vasodilation reactivates the normal mechanisms of microcirculation. This vasodilatation usually occurs after 12-15 minutes

Reduction of tissue hypoxia:

The cold inhibits the release of chemical mediators such as histamine (involved in the excitation of nociceptive receptors).

On the other hand, the cold induces a state of hibernation in the tissues that causes a decrease in the oxygen needs due to the lower metabolic demand of it. These two factors together with vasoconstriction are those that explain the decrease in inflammation.

***THERAPY COOL** in the sports field*



Physiological effects of cold applications

Pain decreasing:

The application of cold is able to cause pain or relieve it.

Cold reduces musculoskeletal pain. The application of cold reduces pain, by interrupting the pain-spasm-pain cycle triggered by the injury. The cold acts reducing pain and muscle spasm. The theories that try to explain this fact are based on the decrease of influx of sensory impulses and the reflex mechanism.

Muscle spasm decreasing:

The application of cold produces a myorelaxing action. The most significant reduction in spasticity occurs while the cold is applied but may remain for a few hours. The reason why muscle relaxation occurs is not very clear. Some authors say that it is due to an action at the level of the neuromuscular spindles whose excitability decreases. According to other authors, gamma efferent fibers (static and dynamic) are blocked. Local cooling would be more effective in cases where there is hyperactivity of the gamma system than when there is hyperactivity of the alpha system.

It must be considered that when the exposure to cold is very intense it produces a destruction of the tissues. For example, dry ice and carbonic acid are frequently used by dermatologists for this purpose.

Some of the treatments and benefits that Therapy Cool provides in the sports are:

- *Pre-training Treatments, (preparation and heating of the muscles, to avoid muscular tensions and injuries).*
- *Pos-training treatments, (accelerates recovery, relaxes and regains muscle).*
- *Improves circulation, increasing muscle performance and avoiding muscle fatigue.*
- *Empowerment of the musculature.*
- *Relieves joint pain and reduces muscle stiffness.*
- *Reduces nervous muscle tension, (acts very directly on the nervous system).*
- *Treatments for high performance athletes.*
- *Physiotherapy treatments.*
- *Treats most sports injuries, accelerating their recovery and helping to consolidate results.*
- *Burns fat and eliminates liquids.*
- *Nourishes, hydrates, oxygenates and firms tissues.*
- *Reinforces the immune system and enhances the body's defenses.*
- *Enhances vitality and energy.*

*A world of well-being, vitality and
fitness for everyone*

***THERAPY COOL** in the sports field*



Therapy Cool specific treatments for physiotherapists and athletes

Specific treatments of Therapy Cool for physiotherapists and athletes are:

- ***Physio-Therapy Treatments:*** *These treatments can be performed from localized areas, ankles, knees, elbows, back, legs, etc. to treatments in which we act on the whole body as a whole.*
 - *Treatment of thermal contrasts*
 - *Cold application treatment*
 - *Heat application treatment*

- ***Treatments with Direct Applicator:*** *These treatments that are applied with the ADC, (Direct Contrasts Applicator), are designed for treatments in very specific areas, generally small, in which we need to act with a very direct and very localized effect:*
 - *Physio treatment with ADC. (Thermal contrasts)*
 - *Treatment with ADC just cold.*

***THERAPY COOL** in the sports field*



Working ranges of Therapy Cool in the treatment of Physio Therapy

Therapy Cool, for physiotherapists and athletes, has a range of specific treatments and the possibility for the professional to modify, according to their criteria within each treatment, the ranges of:

- **Type of application:** only heat, only cold, or treatment of contrasts.*
- **Heat temperature:** from 30°C to 52° C.*
- **Cold temperature:** from 20°C to -10°C.*
- **Heat application time:** from 1 min to 60 min (0.5 min intervals).*
- **Cold application time:** from 1 min to 60 min (0.5 min intervals).*
- **No. of contrasts.***

This versatility allows the professional to fully customize the treatment depending on the injury to be treated

Why THERAPY COOL?

Because it is an equipment conceived and designed to offer the professional a wide range of possibilities.

Offering treatments in fields as diverse as Aesthetics and Beauty, Physiotherapy and Rehabilitation, Balneotherapy and General Welfare or Cryolipolysis

Because it is a non-invasive technology, but above all pleasant and addictive.

Because it uses a physiological work technique (it is not against nature), and it is based on natural principles.





Invest in THERAPY COOL means choosing the best, the most complete and the most profitable equipment that technology can make available to professionals.



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