

SALT WATER THERMAL BATHS

THALASSOTHERAPY ON THE ISLAND OF GRADO

Grand Hotel Astoria
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SEA WATER HYDROTHERAPY SPA AT THE GRAND HOTEL ASTORIA – THE PHYSIOTHERAPISTS' ADVICE

Life first appeared in cell form, in the primeval belly of the sea billions of years ago. Sea water contains the same proportions of all the mineral elements present in our organism. One may therefore conclude that the sea, besides being our wet nurse, is our healer as well, because it knows, better than any other, what we are made of and what we need when our body ceases to function correctly.

Thalassotherapy has ancient roots and was known and utilized by the Greeks. In fact the term “thalassa” derives from the Greek, meaning “sea”.

Thalassotherapy today is a therapeutic method committed to the study and use of everything which has to do with all (clime, water, wind, sand, algae etc.) the sea has to offer. It is used in conjunction with other methodologies (physiokinetic therapy, dietetics etc.) in a thermal environment under medical supervision to promote health and general wellbeing.

Thanks to its anti-inflammatory properties, thalassotherapy is particularly useful in treating articular and chronic muscular rheumatisms, various forms of arthrosis, articular rigidity and the effects of trauma. Combined with pharmacological and physiotherapy treatments yet without attempting to substitute them, but only aiming to consolidate and stabilize the results which have been reached. Notwithstanding, this natural cure has, in several cases, had surprising effects in instances where other therapeutic methods have proved useless.

Thalassotherapy is revitalizing, cleansing, antibacterial, restores balance and tones. It is recommended for children who suffer from lymphatic system problems and for anemic persons; it restores the organism after a period of fatigue and stress, particularly useful for those who are sedentary and live in the city.

Sea water favours metabolic equilibrium and, if heated, aids in distending the muscles and relaxing the body. Furthermore it possesses undeniable and remarkable mechanical, hydrodynamic and chemical characteristics which may be employed for therapeutic purposes. By far, its mechanical action is the most immediate: the water massage which the submerged part of our body experiences, through the waves and sea currents, brings instant relief to a myriad of ailments, curing skin imperfections and reshaping the physique. The hydrodynamic action allows persons suffering from articular ailments to move with greater ease and to exercise without experiencing fatigue in order to strengthen and tone the musculature. The chemical action comes about because sea salt, penetrating into the pores, smoothes and purifies the skin. The strengthening and regenerative powers of the marine climate and sea water (the most complete of all the thermal waters) are being utilized following new methodologies, thus enhancing the value of thalassotherapy due to its efficacy in prevention.

To this day, the island of Grado is far from urban conglomerations and polluting industrial zones. It boasts a salinity level unique to its area, a result of the constant marine currents and a wide lagoon which doubles the refraction of the sun's rays, thus bestowing a truly unique microclimate with a high iodine concentration.

The island of Grado boasts a centuries-old tradition and experience with thalassotherapy. As early as 1892 it had received the official title of Saltwater Thermal Bath.

HOTEL ASTORIA'S SALTWATER THERMAL BATHS

The Center for Marine Hydrotherapies at the Grand Hotel Astoria is a thalassotherapeutic and physiotherapeutic center run by doctors. The cures which are practiced in this center are based on the therapeutic benefits gained from sea water and physiokinetic therapy.

The use of heated sea water is practiced at the Grand Hotel Astoria ever since its origins in the early 900's. In our center, the sea water is drawn from the open sea at a depth of approximately 2 meters to maximize its therapeutic effects. It is used at a temperature which fluctuates from 30 to 34 °C, both in the covered pool on the 1st floor, as well as in the open air pool on the 7th floor, in the Caracalla baths, in the Special Butterfly bath, for inhalations, in the Turkish Bath and in the Panthermal.

THE COVERED POOL IN THE SALTWATER THERMAL BATHS

Along one side of the pool there are massage nozzles and on the other side there is a spectacular fountain, which performs a beneficial and relaxing cervical massage.

Upon request, one may experience an individual water treatment with a physiotherapist, according to his/her particular needs.

In addition to the general psycho-physical benefits, rehabilitation in sea water decreases articular rigidity, lessens pain, improves tissue trophism and specifically renews damaged tissues; muscles regain tone and strength and the nervous system learns once again how to guide, control and perceive movement. Hence, it is very useful in treating conditions where one experiences a reduced physiological capacity of movement, such as following a trauma (fractures, dislocations, broken ligaments, lesions in the central and peripheral nervous system), after limb surgery (shoulder, hip and knee replacement joints; ligament reconstructure, acromionplastics ...), and spine (herniated disc, fractured vertebrae, vertebral stabilization), in the case of pathologies affecting the central and peripheral nervous system or after any illness which entailed immobility. With hydrokinetic therapy the recovery times are considerably reduced.

Sea water is also useful during pregnancy. The importance of respiration during childbirth is well known and one must prepare during the preceding nine months and not only the preceding day. The child which is developing will benefit greatly from this. Swimming is an excellent "mild" technique which aids in respiration control. The breaststroke is the ideal technique because it is the most graceful and may be practiced without violent jolts. It gently massages the body; it strengthens and tones the musculature, particularly the lower section of the abdominal area, which pregnant women find is often hard and strained; it strengthens the muscles which support the breasts, enhancing circulation and toning the often fragile skin; it stimulates circulation and prevents varicose veins, which are a common occurrence during this time. In order to not aggravate the lumbar lordosis, it is better not to swim with the head lifted by the water, but to regularly immerse it in synchronization with respiration.

CARACALLA HYDROMASSAGE BATHS

In these hydromassage baths, the water pressure is patterned according to a computerized programming. The pressure and vibration of the underwater massage on the skin and the deeper strata relaxes the muscles and reduces pain. Thanks to the stimulation of the circulatory system (and chiefly the venous system) the Caracalla baths are ideal both for fighting cellulite, as well as for toning and firming. The sea water's lymphatic drainage action is particularly appreciated by persons who suffer from heavy and swollen legs, water retention, painful menstruation, skin dehydration and headaches. Furthermore, the draining

of toxins ensures an anti-stress and anti-age action and heightened tissue oxygenation. Thanks to sea water's properties, the hydromassage is also recommended for curing psoriasis, acne, seborrhea, eczema, scleroderma and lichens. All sores cicatrize quickly in sea water, even varicose ulcers. The treatment lasts for 20 minutes, followed by a 14 minute relaxation period.

SPECIAL BUTTERFLY BATH

Thanks to its unique shape, the butterfly bath allows for the performing of hydrokinetic therapy, even in cases in which access to the covered pool is difficult (neurological after-effects, prolonged immobility...). This bath has the same indications as the covered pool and the same advantages. Besides the thermic and thalassotherapeutic effects, thanks to the anti-gravity action, which determines a lightening of the submerged body, one may perform active or aided-active mobilization exercises for the various joints; one may perform stretching muscle area strengthening exercises, furthermore the mobile nozzle allows you to experience a manual de-contracting hydrotherapy massage and a localized analgesic. The treatment last for 45 minutes, followed by a 15 minute relaxation period.

INHALATIONS

This method utilizes equipment which fragments sea water into particles, creating a jet of vapour which is then inhaled by the patient. The inhalation treatment done with sea water prevents and cures chronic illnesses of the respiratory passages; rhinosinusitis, pharyngolaryngitis and chronic ear infections, both in adults and in children. It has a therapeutic and preventative effect, bringing relief to: nose, throat, bronchial tubes, lungs and larynx. Moreover, it boosts the organisms' defenses against external attacks and illnesses linked to catching cold.

MARINE GROTTA

It is a Turkish vapour bath prepared with sea water. The environment in which it takes place is saturated with water vapour (humidity level 100%) forming a fog with stratified temperatures (from 20-25 °C at foot level to 40/50 °C at head level) which, when it coats the skin, promotes transpiration. The Turkish bath is not only a way to achieve a deep body cleansing, but also a useful instrument to combat stress, rheumatic pains and insomnia. Furthermore, the marine vapour guarantees beneficial results for the skin and the respiratory passages. The first effect of the heat is the blood vessel dilation, which improves circulation. An improved circulation allows more oxygen to reach the damaged parts of the body and aids in relieving pain and accelerating healing. It is very important to pay close attention to one's time of maximum heat tolerance. When our body signals with pounding in the temples, it is time to exit and cool off with a cold shower, and then return to the Turkish bath. The beneficial effects of the Turkish bath will be visible in no time: straightaway your skin will be more elastic and glowing, your metabolism will speed up and you will lose weight quicker.

PANTHERMAL

It is a steam bath with nascent oxygen. The treatment begins with a low-temperature sauna (37°-42°C). The entire body surface is enveloped by nascent oxygen, conveyed by a flow of ionized sea vapour: in this manner there is maximum receptivity to the active principles which are atomized for optimal penetration. It is then followed by a micro-jet shower with variable water pressure which massages the body with an arching movement. This all takes place inside one machine. The effects are: a slowing down of the cellular aging process; cellulite treatment; nourishing, regenerating, toning and refreshing effects according to which cosmetic or natural product is conveyed; anti-stress effect with a sensation of

relaxation and wellbeing; improved performance, with a reversal of fatigue. There are no contraindications or negative side effects.

BIOSAUNA

A sauna is a well-known treatment, just as are its numerous beneficial effects on our mind and body. However, despite all this, a sauna is not always advisable and it is a practice which certain people can never partake of. Well, the biosauna was born to compensate for these little problems. Biosauna is the ideal solution for those who need a lighter, yet equally effective, treatment. We could in fact define the biosauna as a "soft sauna" in which temperatures do not exceed 50°C and humidity levels are between 65 and 70%, thus somehow recreating the same conditions as a hay bath. It is the perfect antidote for anxiety and stress, it promotes good sleep at night and leaves an unparalleled sensation of energy; it improves blood and lymphatic circulation and helps eliminate the toxins in our organism. Its hydrating action not only leaves the skin smooth, but prevents and reduces wrinkles, moreover it fights cellulite.

EMOTIONAL SHOWERS AND COLOUR THERAPY RELAXATION AREA

With a tropical rain and cold fog, the emotional showers complete the benefits of the Turkish bath and sauna. We recommend at least 30 minutes of rest in the colour therapy relaxation area before leaving the room. The emotional shower is an original type of shower, unlike typical showers. Through the use of water, colours, lights and aromas it imparts to the one using it a sensation of wellbeing and relaxation. Imagine you are entering your emotional shower and you see relaxing light patterns, smell the natural aromas of fruit and nature, feel the water jet on your skin which changes its rhythm according to the lights and colours projected by the shower, and finally find yourself in a light mist which smells of wild mint. The emotional shower has an ulterior objective besides relaxation: massaging the entire body, particularly the cervical area. Through various types of water jets, the upper body muscles are able to release their contracture and become more relaxed.

After your stay you feel serene, your articulations have regained their agility, your skin is silky and your body is toned. The benefits of your thalassotherapy treatment, once you have finished the complete therapy cycle, last an average of 4 to 8 months, but may be lengthened if you continue to apply new hygiene and lifestyle rules from the moment you return home.

The Center for Marine Hydrotherapies is also equipped with a physiotherapy department where you may, subject to medical prescription, undergo the following treatments:

ULTRASOUND THERAPY

Ultrasound therapy uses the biological effects produced by vibrating energy created by mineral crystals subjected to an electric field of alternating current for therapeutic purposes. The passage of the ultrasounds through the tissues of the human body performs a tissue micro-massage. Subsequently to the mechanical effect, there is a thermal one with a raising of the core temperature, which brings about vasodilation and therefore favours the metabolic processes. The ultrasounds may also be used during immersion; the ultrasound head is immersed in water together with the area which must be treated. The therapeutic effects are: analgesic; relaxing of contracted muscles; fibrinolysis; improvement of the tropism; spasmolytic; anti-inflammatory; bactericide. The ultrasounds are useful in various pathologies of the osteoarticular apparatus: tendonitis; periarticular calcifications; arthrosis; analgic muscle contractures; cicatricial tissue and organized hematoma; Dupuytren's contracture. The ultrasound therapy is contraindicated in cases where there is an occurrence

of neoplasia, in the cardiac region or near the sexual organs, osteoporosis and an acute stage of phlebitis.

DIADYNAMIC CURRENTS

Diadynamic currents are low-frequency one-directional semi-sinusoidal currents. They have a motor-stimulating action on the musculature and an inhibiting one on the sensibility, which is responsible for the analgesic effect. There is a bettering in tissue nourishment and they facilitate the reabsorption of post-traumatic edemas.

They are indicated for: elbow, wrist, shoulder, hip, knee and ankle tendonitis; painful after-effects and articular trauma; acute and chronic arthropathy; muscle pains. This therapy is contraindicated in the case of patients who have a pace-maker, or who suffer from superficial skin pathologies.

TENS

The word TENS derives from the English acronym: "TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION". TENS performs a strictly analgesic action, insofar as the technique involves the application of electro-conductive plaques on the skin, which emit specific electrical impulses which excite only the tactile nervous fibers situated under the skin. The nerve impulses which are produced through the sensory nerves travel up the spinal cord and at this level block "the entry gate of pain"(gate control process). TENS is used in treating the following pathologies: lumbago and radicular pain; postherpetic neuralgia; rheumatoid arthritis; localized arthralgia and myalgia. It is contraindicated in the case of patients who have a pace-maker or pregnant women.

IONOPHORESIS

Ionophoresis is an electrotherapy which makes use of a continuous current to introduce medicaments into the organism through the epidermis.

Basically, the advantages to administering medicine in this way are:

Applying the medicine directly to the body part which is affected by the pathology, thus reducing the duration of therapy, with an ensuing a shorter time frame of symptom regression;

It allows the medicine's ions to bond with certain protoplasmic proteins, lengthening their permanence in the concerned anatomical parts (half-life), and diminishing the amount of medicine used for the same pathology compared to other administration methods;

Hyperpolarizing the nerve endings, bringing about a heightening of the excitability threshold, thus obtaining a higher analgesic level (TENS effect).

Ionophoresis is advised in treating pathologies which concern superficial structures devoid of abundant muscular and adipose layers. It is effective in treating periarticular tissue pathologies and surface articulations (elbow, wrist, knee, ankle, foot). Many diseases can be treated with ionophoresis, because, depending on the medicine which is used, this technique can have an analgesic, anti-inflammatory, anti-edemagenous, myorelaxant, re-calcifying and sclerolytic action. It is contraindicated in the case of patients who have a pace-maker, cutaneous lesions, epilepsy and cutaneous hypoaesthesia.

MUSCULAR ELECTRO-STIMULATION

The electro-stimulator is an instrument which stimulates the nerve cells which carry electrical impulses to the efferent nerves, their connection with the muscle fibers. Though the

electrical stimulus is artificial in nature, it produces a muscle contraction which, although involuntary, is genuine, consisting even of strong contractions, depending on the selected intensity.

Muscular electro-stimulation: may be used when one cannot train (for ex. due to convalescence or if there are articular problems which compel one to remain immobile); it enhances venous and lymphatic drainage through the pumping effect of the muscle contraction and release; it prevents and aids the removal of adhesions; it strengthens muscle layers; it balances the kinetic chains. It is contraindicated in severe cases of osteoporosis, arterial hypertension, during pregnancy, to patients who have a pace-maker, heart patients, kidney deficiencies.

LASER

Laser therapy utilizes the effects of energy generated from laser light sources (Light Amplification by Stimulated Emission of Radiation). The laser ray enters the tissues and causes a biochemical response on the cellular membrane and within the mitochondria. Among its positive effects, we wish to highlight vasodilation (with a subsequent temperature augmentation of the treated area, a metabolism boost, neurovegetative stimulation and modification of intracapillary hydrostatic pressure), increased lymphatic drainage and microcirculation activation. Laser therapy has primarily two uses: as a painkiller and an anti-inflammatory. Its pain-killing properties are due to an increase of the threshold of perception in the nerve endings and the release of endorphins. The anti-inflammatory effect is due to the increase in blood flow following vasodilation. Its antiedemigenous action is due to the change in intracapillary hydrostatic pressure.

Laser therapy is risk-free, non-invasive and painless. It is suitable for: rheumatic disorders (sciatica, scapulohumeral peri-arthritis, polyarthritis of the hands or feet, epicondylitis etc.); traumatology (strained or pulled muscle, articular distortions, tendinitis, contusions, bursitis).

TECAR THERAPY

Tecar therapy (Trasferimento Energetico Capacitivo Resistivo – Capacitive Resistive Energetic Transferral) is a technique which stimulates energy from within the biological tissues, activating the natural repairing and anti-inflammatory processes. The idea of transferring energy to damaged tissues is used in many therapies, yet all of them administer energy originating from without. Tecar therapy summons instead the electrical impulses from the whole body. The area being treated will experience a charged flux of metabolic activation and an endogenous (that is born from within) thermal effect. The effects of Tecar therapy are an increase in metabolic activity with an increase of ATP production (and hence an acceleration in mending), an increase of hematic circulation and lymphatic drainage due to vasodilation caused by heat (and therefore better tissue oxygenation and edema absorption). The advantage of using Tecar therapy over other energetic therapies is that, since the energy comes from within, one may treat deeper layers which may not be treated with external transferal of energy due to skin damage from the energy which is emitted. It has no side effects. The therapy is useful in the following cases: neuropathy; articular pathologies; articular rehabilitations; distorsive trauma; muscular pathologies; consequences of rehabilitative surgery; sport-related syndromes; acute and chronic pain; consequences of scarring; tendinopathy; arthrosis.

KINETIC THERAPY

Kinetic therapy includes a group of specific techniques aimed at the recovery of strength and muscle mass, articular functionality and sensibility to movement (proprioceptivity), in

synthesis the capacity to complete a voluntary action in a fluid and functional manner. Kinetic therapy regresses articular rigidity, lessens pain, better trophism in all the tissues and in particular: damaged tissues are renewed, muscles regain tone and strength, the nervous system learns once again how to guide, control and perceive movement. During a kinetic therapy treatment, the physiotherapist may perform specific maneuvers on the patient, such as limb mobilization or passive stretching of certain muscle groups, request his cooperation in more exacting exercises, such as muscular strengthening performed against opposing resistance by the physiotherapist, or suggest exercises which the patient must perform with his help or autonomously under his supervision (muscle stretching exercises, development exercises, precision exercises). The indications are: bone fracture outcomes; ligament lesion outcomes; musculotendinous traumas; the after-effects of limb and radicular surgery; rheumatic pathologies; pathologies or damages to the nervous system; outcomes of immobilization syndromes.

MASSOTHERAPY

The term massage include a series of movements performed with the hands on the surface of the body, whose goal is to induce transitory or permanent modifications on the cutis, the deeper tissues and visceral organs. Massage has a direct biological reaction on the part being treated, and an indirect or reflex reaction which is manifested on the whole organism. DIRECT ACTION: due to the mechanical action caused by the manipulation, there is an increase in blood circulation. This brings about a relaxation of the muscles because of the removal of residues and metabolic deposits caused by fatigue, or inflammatory liquids deposited after traumatic events. It aids gradual resolution of effusions in damaged articulations, bringing them back to their initial elasticity.

INDIRECT ACTION: manifests itself in the whole organism and specifically in the systemic circulation, thus improving diuresis and it reactivates the autonomous nervous system (it regulates the visceral organs' functions). It also intervenes in the psychic side of the subject under treatment, inhibiting, relaxing or stimulating him/her. Indications of use for massage: muscular atrophy/preparation for sport; articular rheumatism (arthritis, arthrosis ...); muscular rheumatism (lumbago, cervicalgia, whiplash outcomes ...); articular trauma outcomes (fractures, dislocations ...); adhering/retracting scars; muscle strain.

MANUAL LYMPHATIC DRAINAGE

It consists of pressure and depression movements made with the fingers along the lymph (a milky liquid composed of water, salts, proteins and immune system cells, known as lymphatic cells) route. This beneficial liquid which is made by the blood, passes through every part of the body to cleanse it from accumulated residues and toxins. These discards are neutralized within the lymph node stations, where the lymph must pass to be drained, and from whence it leaves, cleansed and full of renewed vitality to bring to the blood. With its slow, rhythmic movements, manual lymphatic drainage acts on the lymph vessels activating their automated process. It improves the elimination of interstitial and lymph fluid which, due to certain pathological causes, has accumulated in certain parts of the body. This amounting to light, slow and repeated manipulations, it exerts a remarkable vagotonic (antistress) effect through the activation of the vegetative nervous system, which causes relaxation. It is particularly suggested in all cases of edema, water retention, cellulite, in lymph stasis caused by surgery, and in all the pathologies where the immune system must be strengthened.

KINESIO TAPING

Kinesio tape is an adhesive elastic tape with a therapeutic bio-mechanical effect. Originally developed in Japan over 25 years ago by Dr. Kenzo Kase, a medical chiropractor living in the U.S. The technique is based on the body's natural healing processes, through the activation of the circulatory and neurological systems. The muscles are not only assigned the function of moving the body, but also controlling the circulation of venous and lymphatic fluids, body temperature, etc. This technique has four main physiological effects:

It corrects muscular functions. Kinesio Tape effectively restores correct muscular tension; according to the technique used, it can facilitate or inhibit the muscular contraction.

It improves blood / lymph circulation. The application of Kinesio tape causes skin convolutions which enable lymph drainage.

It reduces pain. The neurological lessening of pain occurs due to a reduction of pressure and irritation on the skin receptors, thanks to a re-balancing of lymphatic activities.

It aids in correcting limb alignment. A limb dislocation, due to abnormal muscle tension, may be corrected using Kinesio Taping through the recovery of the functions and of the muscle group.

KINESIO TAPING reduces pain facilitates lymph drainage through the lifting of the skin. The body surface covered by KINESIO TAPE forms convolutions on the skin, thus increasing the interstitial space. As soon as the body moves, the tape acts as a pump, continually stimulating the draining through lymphatic circulation, soothing also the irritation of the skin's pain receptors. It may be used to reduce inflammation, pain, fatigue and muscle aches, increase ROM, correct posture, reduce the possibility of injury.

KINESIO TAPING has, throughout the years, been continually updated based on clinical experience and the research conducted by over 1000 certified instructors worldwide. It is used, as an aid to other techniques, in many physiotherapy and rehabilitation fields thus improving the subsequent effects and results.

Indications: treatment of sport-related muscle damage, treatment of edema and the handling of pain, inflammation and articular rigidity, muscle fatigue, an aid in postural correction, trauma after-effects.

The duration of the therapy sessions and the entire cycle of physical therapy and functional re-education will vary in each single clinical case.