



MEDICAL SPA

Oxygen Ozone Sauna

Adjunct therapy for chronic
conditions

Obesity

Diabetic Ulcers

Hypertensive stress & anxiety

Painful inflammatory conditions

Anti-viral, anti-bacterial & fungicidal applications

Palliative Pain Support Therapy

Ozone therapy has been marred by conventional science for years due to many flawed experimental designs or small sample sizes of clinical trials. Many physicians may be reluctant to suggest ozone as an adjunct therapy to patients coping with chronic, debilitating conditions without clinical evidence to support the notion.

Some 235 clinical studies published to date in PubMed have convinced some to authorize the use of ozone as a complementary, coadjuvant or palliative treatment for various diseases. Ozone clinics are included in 23 centers for pain management and 2 diabetic foot hospitals in Spain. The European Medicines Agency (EMA) includes ozone as an authorized active substance and it also has active projects in research

Ozone is combined with other treatment modalities to **enhance or encourage a desired mechanism of action**. Since the efficacy of ozone alone is still contentious, it is important to note that ozone therapy should be used in conjunction with other treatments with very few exceptions.

Mechanism of Action

Belle Santé offers **Oxygen Ozone Sauna Therapy**, combining the benefits of **hyperthermic sauna** therapy with Ozone.

Oxygen Ozone can also be applied via **limb bagging** where ozone gas is fumigated into the bag, exposing any open lesions and wounds to the ozone gas.

An oxygen concentrator and ozone generator introduces ozone or “activated oxygen” into a special steam sauna cabinet, where it is absorbed transdermally (across the skin) of the occupant. The head protrudes from the top of the sauna, so the individual is not breathing the ozone / steam mixture. Concentrations used for this type of treatment are usually approximately 40ug/ml, and the ozone is introduced into the sauna at a rate of 1/4LPM.

Health effects reflect the known physiology of induced heat therapy and ozone.



Clinical Trial Studies

Oxygen Ozone Transdermal Therapy in wound healing

Martínez-Sánchez et al

Rectal insufflation and non-invasive oxygen-ozone treatments in a specialised bag for wound healing

Ozone vs placebo

Area reduction percentage (% $\pm$ SD): 74.58 ± 0.35

Area reduction percentage (% $\pm$ SD): 50.30 ± 0.17

$P < .017$

Zhang et al

Non-invasive oxygen-ozone in a special bag vs Standard treatment of debridement

Ozone vs Control

Change in wound size (cm² mean $\pm$ SD): 6.84 ± 0.62

Change in wound size (cm² mean $\pm$ SD): 3.19 ± 0.65

$P < .001$

Turčić, Hancevic, Antoljak, Zic, and Alfirevic (1995)

Ozone-oxygen mixture on lower limb wounds vs Conventional manners of 10% NaCl solution on upper limb wounds

Ozone vs Control

75% experienced wound closure

40% experienced wound closure

$P < .01$

Borrelli, et al

Ozone-oxygen mixture vs standard wound treatment

Ozone vs Control

80% experienced wound closure

30% experienced wound closure

$P < .01$

Wei et al

Ozone-oxygen mixture vs standard wound treatment

Ozone vs Control

85% experienced wound closure

71.41%

$P < .05$ *

Wainstein, et al

Ozone-oxygen mixture, applied in a sealed chamber vs Inactive ozone exposure

Ozone vs placebo

81% experienced full wound closure

44% experiences full wound closure

$P = .03$

Secondary outcomes: No adverse effects linked directly to ozone therapy were reported in any study. In Marfella et al, Borrelli et al and Campanati et al reported a significant decrease in pain perception following the ozone intervention.

Clinical Trial Studies

Effects of Heated Sauna & Health

Regular sauna bathing has potential health benefits and may be particularly beneficial for people with cardiovascular-related conditions. Regular sauna bathing is associated with psychological, physiological, and metabolic effects fitting a hormetic stress model similar to exercise that may be contributing to its clinical benefits

	Study Group	Comparative Controls	Outcome Measures	Health Effects
2015 Laukkanen et al. CARDIAC HEALTH	2315 participants Middle-aged males/Finland over 20.7 yrs	Frequency and duration of sauna 1 time/wk, 2-3 time/wk, 4-7 times/wk	Incidence of sudden cardiac death, fatal coronary heart disease, fatal CVD, all-cause mortality	Positive, sauna 4-7 sessions weekly associated with 40% reduction in all-cause mortality compared with 1 session weekly, (hazard ratio 0.60, 95% CI, 0.46-0.80, $p < 0.001$)
2013 Sobajima et al. CARDIAC HEALTH	24 participants Controlled clinical study IHD with total coronary occlusion/Japan over 3 weeks	Control group, standard medical care	Myocardial perfusion scintigraphy with adenosine, flow-mediated vaso-dilation of brachial artery, treadmill exercise stress testing and expression of CD34-positive bone marrow-derived cells	Positive, improved indices of defect reversibility on myocardial perfusion scans ($p < 0.01$); extended treadmill times ($p < 0.01$), improved flow-mediated dilation of brachial artery ($p < 0.05$) after sauna therapy compared to control group
2010 Beever TYPE 2 DIABETES	15 participants Type 2 diabetes Canada over 3 months	No control group Single group, sequential, longitudinal, interrupted time series	SF-36 (36-item short form health survey) and VAS (visual analogue scales)	Positive, improved stress ($p = 0.042$), fatigue ($p = 0.014$), general health ($p = 0.037$) on SF-36
2007 Tei et al. LEG PAIN	20 participants PAD/Japan over 10 weeks	No control group Single group clinical study/pilot trial	Leg pain using VAS (visual analogue scale), 6MWD (6 min walking distance), ABI (ankle/ brachial index), leg blood flow with Doppler laser imaging, digital subtraction angiography	Positive, pain scores decreased, 6MWD improved, ABI improved, increase in visible collateral vessels in ischaemic legs with digital subtraction angiography observed after sauna therapy ($p < 0.01$ for all)

Clinical Trial Studies

Effects of Heated Sauna & Health

Regular sauna bathing has the potential to provide many beneficial health effects, especially for those with cardiovascular-related and rheumatological disease, as well as athletes seeking improved exercise performance. The mechanisms for these effects may include increased bioavailability of NO (nitric oxide) to vascular endothelium, heat shock protein-mediated metabolic activation, immune and hormonal pathway alterations, enhanced excretions of toxicants through increased sweating, and other hormetic stress responses.

	Study Group	Comparative Controls	Outcome Measures	Health Effects
2009 Oosterveld et al. RHEUMATOID ARTHRITIS	34 Participants Rheumatoid arthritis (RA) and ankylosing spondylitis (AS)/ Netherlands over 4 weeks	2 single group (side-by side) intervention pilot trials No control group; two groups receiving same sauna intervention	VAS, EPM-ROM (Escola Paulista de Medicina range of motion), DUTCH-AIMS (Dutch arthritis impact measurement scales), BASMI (Bath Ankylosing Spondylitis functional index of range of motion), BASDAI (Bath Ankylosing Spondylitis disease activity index); serum ESR	Positive, pain and stiffness decreased in RA ($p < 0.05$) and AS ($p < 0.001$) groups during sauna sessions only Mild- 12–24% scoring uncomfortable on well-being scores during beginning of sauna
2015 Amano et al. CHRONIC FATIGUE & MYALGIA	15 Participants Females with chronic fatigue syndrome/myalgic encephalomyelitis/ Japan over 8 weeks	6/15 chose not to undergo sauna intervention	SF-36 survey; SRQ-D (brief self-rating questionnaire for depression); STAI (state-trait anxiety inventory questionnaire)	Positive, 7/9 in sauna group improved during sessions; 4/9 were still improved at follow-up 9–40 months afterwards; 2/9 non-responders. 3/6 controls receiving usual treatment improved at follow-up Moderate: heat intolerance in most participants, protocol changed.
2011 Matsumoto et al. FIBROMYALGIA AUTOIMMUNE DISORDERS	44 participants Females with fibromyalgia and autoimmune disorders/Japan over 12 weeks	Sauna only one part of intervention; combined with underwater exercise therapy; no control group	VAS-visual analogue scale; no. of tender pts on clinical exam; FIQ (fibromyalgia impact questionnaire); SF-36 quality of life questionnaire	Positive, reduced VAS pain scores ($p < 0.001$); fewer # of tender pts ($p < 0.01$); reduced symptoms based upon FIQ ($p < 0.001$); improved quality of life on SF-36 questionnaire ($p < 0.01$ – 0.05) after combined sauna + underwater exercise
2012 Zinchuk & Zhadzko ATHLETIC PERFORMANCE	16 participants Elite Athletes– Males/ Belarus over over 5 months	No control group Single-group interventional study	Axillary temp; venous blood gas analysis; lipid peroxidation and free radical processes by UV and fluorescence analysis of plasma and RBCs; antioxidant estimation by - tocopherol fluorescence analysis of plasma and RBC catalase activity; nitric oxide metabolism by spectrophotometric methods, plasma nitrate and nitrite levels	Positive, increased axillary body temp 2.6°C ($p < 0.001$) after first sauna and 1.9°C ($p < 0.002$) after course of sauna; increased pH by 0.8% ($p < 0.001$), decreased base excess by 20.3% ($p < 0.001$), increased venous O ₂ by 53.3% ($p < 0.001$), increased Hb concentration in blood by 5.2% ($p < 0.001$), right shift of oxy-Hb dissociation curve (decreased affinity – favours release of O ₂ to tissues) after 1st sauna; similar changes after final sauna ($p < 0.043$ – $p < 0.005$)

Contra-indications of Ozone Sauna Therapy

Do not drink any vitamin C, 1 to 2 hours before or after a session.

Vitamin C and ozone neutralizes one another, so if someone reacts negatively to the ozone you can give them orange juice. This will neutralize any ozone in the body and vice versa.

Do not walk directly on cold surfaces after a session It's best to keep warm after a session. Your feet is also extremely sensitive. Should your body get a severe shock from something cold e.g. walking on cold tiles, this may negatively affect your session and reduce the therapy benefits. This must not be confused with cryotherapy where you alternate between hot and cold. •

Do not shower directly after a session: Ozone still has an effect even after your session. Taking a shower will remove the ozone left behind on your skin. Wait at least 2 hours before showering. [Note] In very rare cases (less than 1%), a rash can occur. This can be due to various reasons and showering can reduce the rash effects. Please enquire for further information should that occur.

Do not eat large meals after a session Like most treatments, it is best not to eat a large meal directly after a therapy session. Give your body a chance to repair and build.

Do not take prescription medication 4-6 hours before a therapy session Medication includes blood pressure, insulin and any other prescribed medication. Ozone has very strong oxidizing properties and might change the molecular structure of the medication through oxidization rendering the medication useless. Ozone also increases the absorption of medication, vitamins and minerals by up to 30% affecting prescribed dosages. First consult a medical practitioner.

Do not do Ozone Therapy after a chemo therapy session Wait 4 DAYS after you have had chemo before going for an ozone therapy session. Ozone therapy can increase absorption of chemo affecting the prescribed dosages. Inform and consult your Doctor before starting ozone therapy.

Do not drink alcohol directly before or after a session You should wait at least 8 hours after your last drink before going for an ozone therapy session, and at least 4 hours after the session before having a drink again. Ozone and heat will increase blood circulation and alcohol thins out blood which can lead to additional strain on your heart. You will also put unnecessary strain on your liver and kidneys if you consume alcohol too close to a session.

Do not go for a session if you are pregnant Not under any circumstances. You can resume ozone therapy sessions after your baby has been born and after you have stopped breast feeding.

Do not do ozone if you a Pacemaker. Ozone therapy is prohibited as the farinfrared might interfere. First consult with a healthcare professional.

Do not do ozone within 2-3 months of mayor surgery Although ozone is beneficial in the recovery process and assists in healing, the danger lies in bleeding or blood clots loosening as ozone will thin out your blood.

Complimentary Therapies & Treatment Protocols

Just as illness took some to develop, the road to health can be frustratingly slow. Our therapies offer an augmented approach to healing: aimed to work adjunctly to a medical doctor's prescribed protocol for chronic disease conditions.



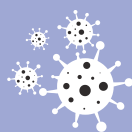
Circulation Issues of lower extremities

Oxygen Ozone Sauna
Limb Bagging with Oxygen
TENS Therapy
Lymphatic Massage



Sports Performance

Oxygen Ozone Sauna
Sports Massage
TENS Therapy
EMS Rehabilitative Therapy
Fascia Rehabilitation Exercise



Long Covid, Chronic Inflammatory Disease

Regular Oxygen Ozone Saunas
and therapeutic stress massages
Nutritional supplementation
Colon Hydrotherapy



Obesity

EMS Faradic Slimming Pads
Oxygen Ozone Sauna
Hormone Profiled Diet Plan
Colon Hydrotherapy



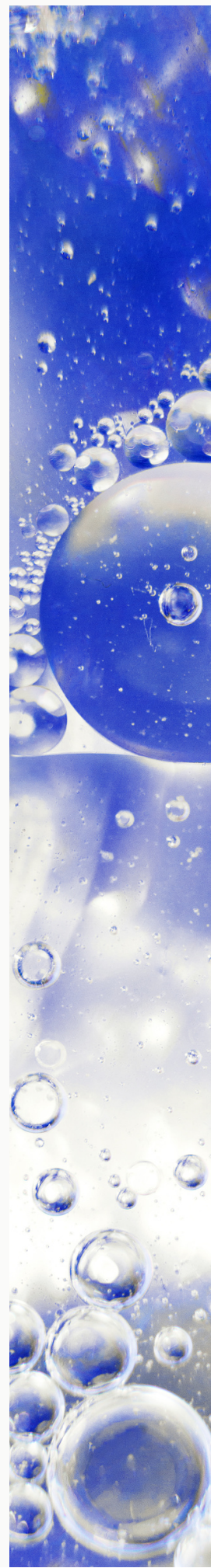
Stress, Anxiety, Burnout

Oxygen Ozone Sauna
90 Minute Deep Tissue Massage



Lymphedema /Lipodema

VelaShape Massage
Laser Endermologie
Oxygen Ozone Sauna
Colon Hydrotherapy





SLIMMING. FITNESS. BEAUTY.
WELLNESS.

Contact Us

Complimentary Consultation

It is important to treat with the appropriate treatment for particular conditions.

We offer a complimentary consultation to affirm if we can help, how we can help and determine realistic outcomes for your condition.

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