

## How OZONE THERAPY works for Athletes

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Fatigue occurs in both aerobic and anaerobic activities by consuming much of the available ATP and forming lactic acid in muscles. ATP (Adenosine-5'-Triphosphate) is a multifunctional nucleoside triphosphate used in cells as a coenzyme. ATP transports chemical energy within cells for metabolism. The effects of lactic acid are well studied and well known with debilitating effects such as fatigue, soreness, muscle stiffness and long recovery periods before any further intensive exercise can be commenced. This has traditionally meant that medium to intensive levels of exercise have had to be interrupted by extensive rest periods whilst lactic acid and its effects slowly dissipate.

Benefits of ozone steam sauna therapy for fitness:

- Increases tissue oxygenation.
- Increases production of ATP resulting in more energy and faster recovery.
- Delays the onset of anaerobic fermentation of sugar in the cell reducing lactic acid build-up.
- Reduces swelling, bruising and pain from injuries and speed healing.
- Prevents and treat colds and flu and enhances immunity.
- Eliminates need for antibiotics, protecting intestinal flora.
- Increases hormone production to optimum levels, eliminating need for artificial steroids.

General benefits of ozone sauna treatments:

- Anti-aging
- Athletic Performance
- Beauty
- Detoxification
- Pain Management
- Weight Loss
- Wellness

## CASE STUDY

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### CLINICAL TEST RESULTS FOR THE EFFECTS OF OZONE BENEFITS FOR ATHLETES

This study was carried out using two groups of athletes aged 20-21 in their final year at The Faculty of Physical Education at Helwan University (Cairo).

#### Stage 1:

Lactic Acid measurements were taken following 10 minutes of exercise using an ergo metric cycle used at 60 cycles per minute until the pulse rate reached the theoretical “maximum oxygen utilisation rate” of 160/min, following 20 minutes of rest. The second day saw the same regime repeated but this time the athletes were exposed to the Ozone Steam Cabinet.

#### Stage 2:

This consisted of the same elements of Stage 1, but in this instance the measurements for the study group were repeated following six sessions of Ozone Steam Bath during a two month period. The groups were also measured during rhythmic gymnastics performances and the evaluation was carried out by three professors from the university. Evaluations were carried out twice for both groups, at the start of the programme and then after two months.

The results showed the tremendous improvements for the group using Ozone Therapy when compared to the “control” group that merely rested and recovered without Ozone Therapy assistance.

Results of tests also showed:

- Physical fitness increased 11.55% in group 1 and 53.7% in group 2.
- Reduced glutathione increased 19.91% in group 1 and 32.81% in group 2
- Oxidized glutathione increased 13.1% in group 1 and 23.8% in group 2.

Note:

Glutathione, or GSH, is an antioxidant found in every cell in the body. It is widely known for controlling free radicals. The majority of glutathione in the body is present in its reduced form because this is the only way it can perform its critical role. Oxidized glutathione (GSSG) is composed of two identical molecules joined by a thiol bridge. The oxidized form of glutathione results from the oxidation of the reduced form of glutathione (GSH) by intracellular peroxides. As such, GSH is a highly effective peroxide scavenger.

