

# Oxygen For Sport

*by O2Boost®*

## WHITE PAPER

O2Boost® Oxygen For Sport improves exercise performance through direct effect on mitochondria and muscle oxygenation



[info@o2boost66.com](mailto:info@o2boost66.com) – [www.o2boost66.com](http://www.o2boost66.com)



**O2BOOST LLC**

*Revolutionizing Oxygen Delivery*



Oxygen For Sport is an oxygenating, sports-focused product by O2Boost®, a company that has exclusive access to an innovative ingredient Ox66®. aka Powdered Oxygen. Ox66® is a certified for sports performance ingredient, that can be formulated in a wide range of nutritional products, manufactured by Texas-based Hemotek, LLC.

O2Boost® supplementation has been clinically tested in placebo-controlled and double-blind studies. Results have shown a decrease in inflammation markers and a direct effect on mitochondria health with a positive impact on ATP production. Tested for over a decade, *in vivo* studies proved Ox66® safely and efficiently releases bioavailable oxygen (O2) when ingested. How does it work? Oxygen is passively diffused into the bloodstream as Ox66® dissolves, providing oxygen where needed at the cellular level.

Recent clinical studies shows a significant positive effect in highly trained subjects; while hundreds of anecdotal results have shown O2Boost® supplements increase aerobic capacity, reduce lactic acid, and speed recovery post-exercise, with zero reported adverse reactions.

Consumers increasingly prioritize a healthier lifestyle and preventive health measures, boosting interest in sports nutrition for overall health and beauty. Both elite athletes and casual fitness enthusiasts share common goals: maximizing performance and speeding recovery.

O2Boost® Oxygen for Sport is a cutting-edge supplement designed to meet these goals, by enhancing endurance, power, and performance for both groups. It meets the demand for natural, stimulant-free sports nutrition, certified free of banned substances by globally recognized Informed Sport. Powered by Ox66®, O2Boost® delivers bioavailable oxygen—without stimulants or drugs—offering a safe way to boost energy and overall health.

**O2Boost® Oxygen For Sport improves exercise performance**

## Clinical Studies

### Clinical trial - Safety & Efficacy

**Objectives:** Supplemental oxygen is largely inaccessible to the average consumer not exhibiting symptoms of hypoxia. However, otherwise healthy individuals may benefit from the reduced strain on their cardiovascular systems seen with improved systemic oxygen delivery. The purpose of this study was to determine the safety of Ox66® as a human dietary supplement.

**Methodology:** 125 human participants (49:51; female:male; average age 45) were randomly allocated to receive Ox66® or placebo, consumed once daily over 30 days. Participants were selected who were not taking any medications, and were a population of untreated Stage II Hypertension. Vitals, blood work, and urinalysis were compared between baseline (Day 1) and end of study (Day 30). Significance was determined via two-tailed, unpaired T-tests and data reported as mean ± SEM.

**Results:** Day 1: Normal metrics, no difference between treatment groups. Day 30, the Ox66® group showed **statistical significant improvements in:**

- **SO2 (blood oxygen saturation)**
- **Blood Pressure**
- **ATP production (40%)**
- **CRP inflammatory marker (25%)**

Compliance was 100% and no adverse events were reported. All metrics for both groups remained in the clinical range of normal throughout the study, including no change for heavy metal residual or toxic substances.

**Conclusion:** In this randomized, double-blinded, placebo controlled trial, Ox66® was well-tolerated. Digestive absorption of oxygen delivered from Ox66® increased SO2 and ATP production, while reducing inflammation and blood pressure. Ox66® appears to be an **effective, safe and accessible** method of supplementing oxygen.



## Clinical Studies

### Clinical trial - Acute Performance with Ox66® Supplementation

**Objective:** This study aimed to evaluate the ergogenic effects of Ox66® supplementation on aerobic performance during acute exercise in highly trained athletes.

**Methodology:** A randomized, placebo-controlled, double-blind clinical trial was conducted with 34 well-trained athletes. These individuals were chosen because their ventilatory thresholds (VT) occurred at a higher percentage of their VO<sub>2</sub>max compared to non-professional or sedentary populations.

The athletes were divided into two groups:

- Treatment group (n=17): Received 2 capsules of Oxygen For Sport prior to testing.
- Placebo group (n=17): Received 2 capsules of microcrystalline cellulose.

Participants exercised until they reached their maximum heart rate, averaging 13.3 minutes. Notably, this was not a full exhaustion trial.

**Results:** Athletes in the Ox66® group demonstrated statistically significant improvements in key performance metrics:

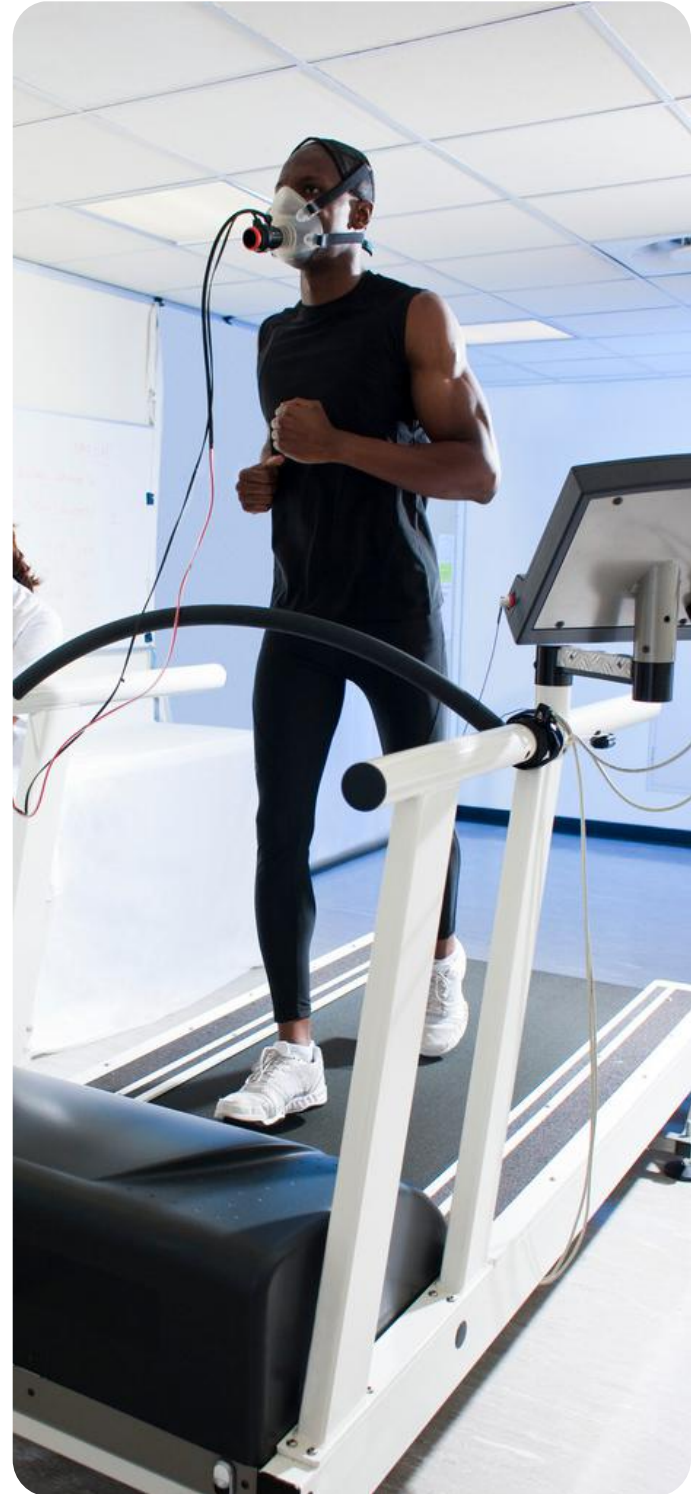
- **Enhanced Aerobic Power:** Sustained superior aerobic-derived power throughout the exercise.
- **Improved VO<sub>2</sub>max:** Statistically significant gains in oxygen utilization.
- **Prolonged Aerobic State:** Increased time spent in aerobic activity.
- **Reduced Perceived Exertion:** Participants reported lower exertion levels compared to the placebo group.

No participants in the treatment group transitioned to an anaerobic state or experienced lactic acid buildup. No adverse effects were observed, affirming the product's safety and non-toxicity.

**Conclusion:** Ox66® supplementation provided significant ergogenic benefits during short-duration exercise. While positive outcomes were evident, the study's shorter test duration (13.3 minutes) may have limited the ability to fully capture the time-release potential of Ox66®, which peaks approximately one hour post-ingestion.

Future research focusing on endurance activities is anticipated to reveal additional benefits, including enhanced lactic acid reduction, inflammation control, and recovery. These results support the potential of Ox66® to optimize athletic performance and recovery in both acute and prolonged exercise contexts.

[info@o2boost66.com](mailto:info@o2boost66.com) [www.o2boost66.com](http://www.o2boost66.com) [www.hemo2.com](http://www.hemo2.com)





# O2BOOST LLC

Revolutionizing Oxygen Delivery

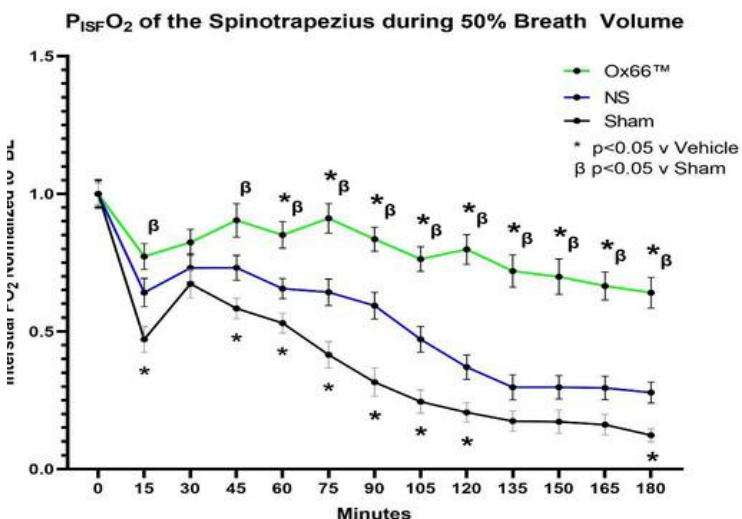
## BIOAVAILABILITY

### Ox66® - developed for an improved bioavailability of oxygen

Bioavailability studies *in vivo* and in human volunteers showed that Ox66® starts to be taken up by the body within minutes. Furthermore, the oxygen delivered from Ox66® remains available for several hours (Figure 1). This higher bioavailability offers great potential to significantly boost performance and maintain energy levels.

**Mechanism of Release:** Ox66® molecules begin breaking down in the digestive system due to its low pH (high acidity). As Ox66® dissolves, it releases bioavailable oxygen, which passively diffuses into the bloodstream. This oxygen is rapidly utilized by tissues and cells, targeting areas with the greatest need (hypoxic or low-oxygen regions). Importantly, there is no toxicity or CO<sub>2</sub> buildup associated with its use. The natural time-release properties of Ox66® ensure sustained energy delivery, supporting high-intensity interval training, endurance exercises, and increased power output.

**FIGURE 1: SKELETAL MUSCLE PO<sub>2</sub>**



**Figure 1.** Oxygen Bioavailability after oral ingestion of Ox66® compared to Normal Saline (NS) and no treatment (Sham).

PISFO<sub>2</sub> decreased significantly following the induction of oxygen restriction. PISFO<sub>2</sub> in the Ox66® group remained higher than either NS or Sham, becoming significantly so after 60 minutes of oxygen deprivation.

O2Boost® Oxygen For Sport  
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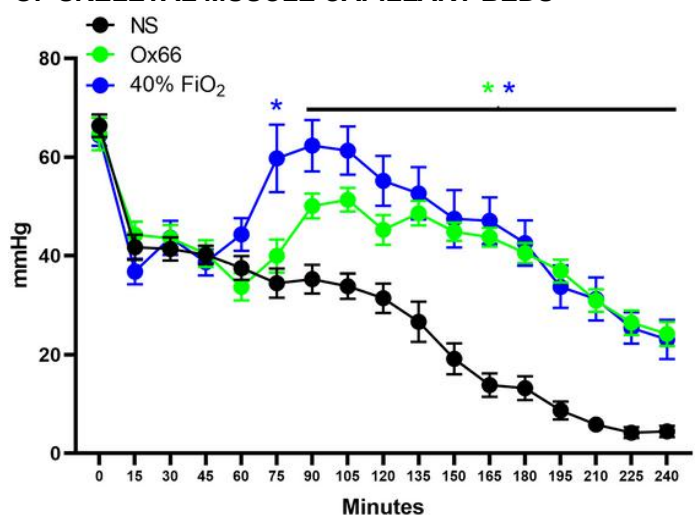
## MECHANISTIC INSIGHTS

### Mitochondria powerhouse of cells

Muscle cells rely on mitochondria—the "powerhouses" of the cell—to produce ATP, the essential fuel for both daily activities and exercise. Ox66® enhances mitochondrial efficiency by delivering bioavailable oxygen directly to these organelles. Recent research underscores the critical role of oxygen (O<sub>2</sub>) as the highest-energy molecule in biological systems. Unlike glucose or fat, which contribute less than 20% of the energy potential of oxygen, O<sub>2</sub> is the primary driver of energy production in complex multicellular organisms.

Clinical studies show that Ox66® significantly improves mitochondrial efficiency, enabling greater ATP production even under oxidative stress. Additionally, *in vivo* studies show orally administered **Ox66® enhances skeletal muscle oxygenation, performing on par with 40% ventilated oxygen**; highlighting Ox66® as a powerful tool for optimizing cellular energy and supporting muscular performance, Figure 2.

**FIGURE 2. INTERSTITIAL OXYGEN TENSION (PISFO<sub>2</sub>) OF SKELETAL MUSCLE CAPILLARY BEDS**



**Figure 2.** Interstitial oxygen tension of skeletal muscle after ingestion of Ox66® compared to 40% ventilated oxygen and Normal Saline (NS).

Ox66® 1st dosage given at 60-min; Ox66® separation from NS begins at 75-min; 2nd dose of Ox66® is given at 120-min; at 135-min Ox66® aligns with inhaled O<sub>2</sub> throughout rest of the experiment.

## CONCLUSION

O2Boost® supplementation increases energy through a direct effect on the mitochondria, as well as speeds lactic acid reduction and aids overall muscle recovery.

Ox66® shows positive effects on aerobic power, endurance, and recovery, making it the ideal sports supplement for both trained athletes and active people that want to get nutritional support for their physical exercise.

No side effects, tested for safety even at extreme doses, no banned substances.

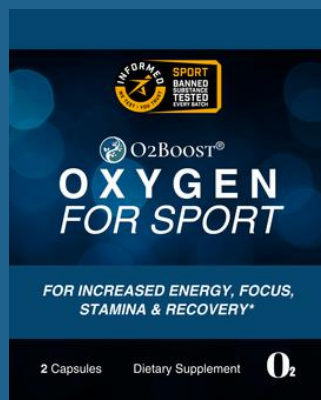
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# Oxygen For Sport

*by O2Boost®*

- Improves aerobic power, endurance & recovery
- Relevant for high intensity & strength training
- Highly bioavailable (O2) oxygen delivered
- Direct positive effect on the mitochondria / ATP
- Clinically proven and tested for safety
- Certified for sport - no banned substances
- The only supplement to contain patented Ox66®



***Cellular energy begins with Oxygen.***

*This information has not been evaluated by the Food and Drug Administration. Neither the information, nor any formula(s) mentioned are intended to diagnose, treat, cure, or prevent any disease.*



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O2Boost LLC—6160 Warren Parkway,  
Frisco, Texas 75034 USA

[info@o2boost66.com](mailto:info@o2boost66.com) [www.o2boost66.com](http://www.o2boost66.com) [www.hemo2.com](http://www.hemo2.com)