

Chad Macias, the strength and conditioning coach from a whole bunch of Olympic Champions wrote this:

The o2 Trainer is an inspiratory training device that increases athletic performance, increases inspiratory muscle strength, increases how many liters per second can be moved, and it helps prevent lactate build-up during rest periods as the inspiratory muscle are the largest consumer of lactate in the body. There is no "it might help", the claims of the company and research supports those well-defined hypothesis's. Somebody said the O2 trainer could not improve oxygen uptake, that is a factual inaccuracy, here is an example ... "In conclusion, the addition of inspiratory resistance during recovery from intense exercise results in increased oxygen uptake, reduction [Lac-]B, and change in breathing pattern, without changes in arterialized blood gases or ventilation. These findings are in agreement with the concept that inspiratory muscles are net consumers of La- during recovery from exercise"

<https://www.ncbi.nlm.nih.gov/pubmed/10090627>

While we are at, here I will link some more research to support the companies claims...Case Study with an Olympic Medalist - "This case study describes the support given to a British elite athlete in the build up to the 2004 Athens Olympic Games. She reported wheezing and dyspnea during high intensity repeated sprint training in the swimming pool that resolved within 5 min of exercise cessation. There were no symptoms during any land based training. She reported that her sprint training was of poor quality and occasionally had to be abandoned because of her symptoms the athlete was diagnosed with inspiratory stridor. Following an 11-week IMT program, the athlete had a 31% increase in mouth inspiratory pressure and a reduction in recovery between high intensity sprints. The athlete reported a precipitous fall in symptoms and was able to complete high intensity training without symptoms. The athlete went on to compete at the 2004 summer Olympic Games winning a bronze medal "

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2465184/>

"After the intervention, the inspiratory muscle training group experienced a reduction in the perception of respiratory and peripheral effort (Borg CR10: 16 +/- 4% and 18 +/- 4% respectively; compared with placebo, P < or = 0.01) and completed the simulated 20 and 40 km time-trials faster than the

placebo group [66 +/- 30 and 115 +/- 38 s (3.8 +/- 1.7% and 4.6 +/- 1.9%) faster respectively; P = 0.025 and 0.009]. These results support evidence that specific inspiratory muscle training attenuates the perceptual response to maximal incremental exercise. Furthermore, they provide evidence of performance enhancements in competitive cyclists after inspiratory muscle training"

<http://www.ncbi.nlm.nih.gov/pubmed/1216688>

"The IMT group improved total recovery time during the repetitive sprint test by 6.2% above the changes noted for the placebo group (p = 0.006). Blood lactate and perceptual responses to submaximal exercise were also significantly attenuated following IMT (p <= 0.01). These data support existing evidence that specific IMT attenuates the blood lactate and perceptual responses to submaximal endurance exercise. In addition, the present study provides new evidence that IMT improves recovery time during high intensity, intermittent exercise in repetitive sprint athletes"

<http://www.ncbi.nlm.nih.gov/pubmed/12165887>

"Significant improvements in 20- and 40-km time trial performance were seen (3.8 +/- 1.7% and 4.6 +/- 1.9%, respectively; P < 0.05) and post exercise reductions in muscle function were attenuated with IMT"

<http://www.ncbi.nlm.nih.gov/pubmed/11984296>

"The inspiratory muscle strength of the training group increased by 44 +/- 25 cm H<sub>2</sub>O (45.3 +/- 29.7%) compared with only 6 +/- 11 cm H<sub>2</sub>O (5.3 +/- 9.8%) of the placebo group. The distance covered in the 6-min all-out effort increased by 3.5 +/- 1.2% in the training group compared with 1.6 +/- 1.0% in the placebo group (P < 0.05). The time in the 5000-m trial decreased by 36 +/- 9 s (3.1 +/- 0.8%) in the training group compared with only 11 +/- 8 s (0.9 +/- 0.6%) in the placebo group (P < 0.05). Furthermore, the resistance of the training group to inspiratory muscle fatigue after the 6-min all-out effort was improved from an 11.2 +/- 4.3% deficit in P<sub>I</sub>max to only 3.0 +/- 1.6% (P < 0.05) pre- and post-intervention, respectively"

<http://www.ncbi.nlm.nih.gov/pubmed/11323552>