

## **PEAK OXYGEN UPTAKE AND VENTILATORY ANAEROBIC THRESHOLD IN FIBROMYALGIA**

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### **Abstract**

**Objective:** To compare maximum oxygen uptake and anaerobic threshold in patients with fibromyalgia (FM) and healthy sedentary controls matched by sex, age, weight, and body mass index.

**Methods:** Fifty women with FM aged 18-60 years and 50 healthy sedentary controls were studied. All were submitted to a maximum oxygen treadmill incremental test. Expired gas, ventilatory anaerobic threshold, and maximum oxygen uptake ( $\text{VO}_2$  max) were evaluated. The influence of FM on quality of life was evaluated by questionnaires: the Fibromyalgia Impact Questionnaire and the Medical Outcomes Study Short-Form (SF-36).

**Results:** In patients with FM, the anaerobic threshold and peak oxygen uptake were significantly reduced. Maximum heart beat rate was significantly lower in FM, indicating submaximum effort. Linear regression data showed a correlation between peak  $\text{VO}_2$  and the "Role-physical" domain of the SF-36. No such correlations were noted with anaerobic threshold.

**Conclusion.** These results confirm the hypothesis of lower physical fitness in patients with FM. Considering that patients with FM do not achieve a maximum effort, ventilatory anaerobic threshold should be considered as a better fitness index than  $\text{VO}_2$  max.

**Key Indexing Terms:** Fibromyalgia, fitness, maximum oxygen uptake, anaerobic threshold.