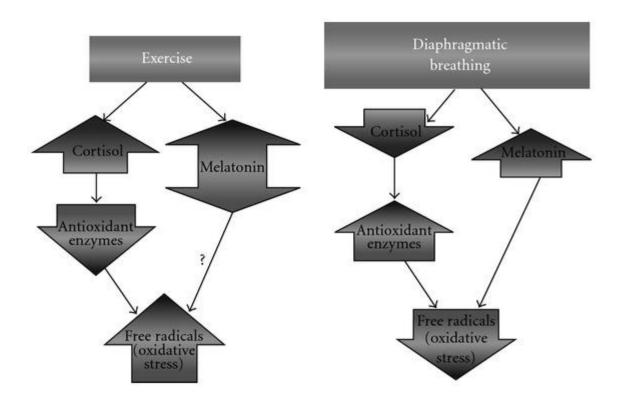
Diaphragmatic breathing

Diaphragmatic breathing is relaxing and therapeutic, reduces stress, and is a fundamental procedure of some Yoga, Zen, and meditation practices. Analysis of oxidative stress levels in people who meditate indicated that meditation leads to lower oxidative stress levels, lower cortisol levels and higher melatonin levels. It is known that cortisol inhibits enzymes responsible for the antioxidant activity of cells and that melatonin is a strong antioxidant. Research study showed that relaxation induced by diaphragmatic breathing increases the antioxidant defense status in athletes after exhaustive exercise. These effects correlate with the decrease in cortisol and the increase in melatonin. The consequence is a lower level of oxidative stress, which suggests that an appropriate diaphragmatic breathing could protect athletes from long-term adverse effects of free radicals.



Modulation of oxidative stress by exercise and Diaphragmatic Breathing

Martarelli D1, Cocchioni M, Scuri S, Pompei P.

1

Department of Experimental Medicine and Public Health, University of Camerino, Via Madonna delle Carceri, 62032 Camerino, Macerata, Italy.