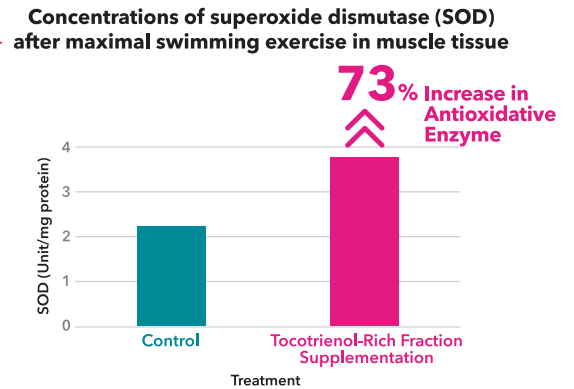


# Maintain Peak Performance: How Tocotrienols Impact Exercise Endurance



**Tocotrienols Enhance the Antioxidant Capacity of Muscle Tissues**

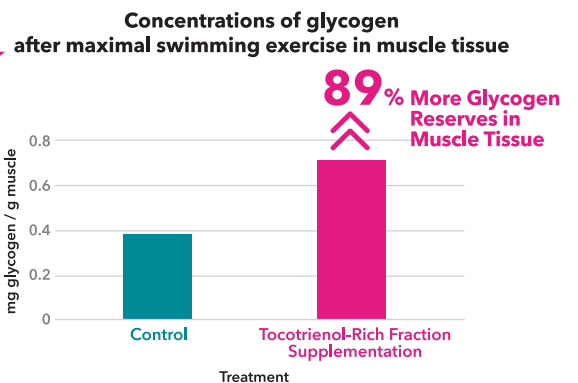
During exercise, muscles contract to create movement and oxidative stress in muscle tissues increases. To counter the harmful effects of oxidative stress, the body produces antioxidative enzymes like superoxide dismutase.



**Figure 1:** Concentrations of SOD in muscle tissue (Lee *et al.*, 2009).

Glycogen reserves reduce during exercise, causing insufficient energy supply or oxygen to the muscles. This induces muscle fatigue.

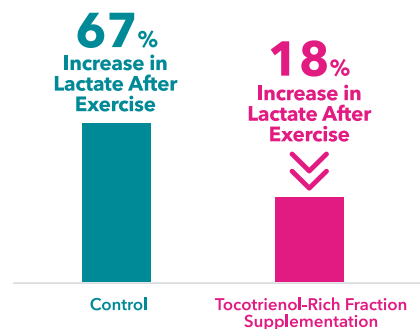
**Tocotrienols Maintain Glycogen Levels in Muscle Tissue**



**Figure 2:** Concentrations of glycogen in muscle tissue (Lee *et al.*, 2009).

Exercise also induces an increase in lactate in muscle tissues as a by-product of anaerobic respiration. High lactate levels increase the acidity of muscle tissue and slows its capacity for more work.

**Tocotrienols Reduce The Amount of Lactate Produced After Exercise**



**Figure 3:** Concentrations of blood lactate in all groups after swimming exercise (Lee *et al.*, 2009).

For medical professional use.