

# **Acute neuromuscular responses during skeletal muscle contraction in hypoxia**

Exercise in hypoxia (simulated altitude) results in a variety of acute and long term physiological adaptations resulting in improved oxygen transport. However it is widely accepted that exercise/skeletal muscle contraction in hypoxia is more difficult, with fatigue a primary factor for prolonged muscle performance in this environment. In order for muscle contraction to occur without fatigue, coordinated responses from the central and peripheral nervous system must occur. However little is understood about the acute adaptation of the central and peripheral nervous system during skeletal muscle contraction in hypoxia. This study will aim to examine the acute responses of the neuromuscular system during muscle contraction in hypoxia.

Skills Learnt: venous blood collection, basic biochemistry, muscle function (strength) testing, peripheral nerve stimulation (PNS), transcranial magnetic nerve stimulation (TMS), electromyography (EMG), nerve conduction and excitability.