

Exercise can cause damage to skeletal muscle which can lead to sore muscles, prevent people from doing activities and ultimately, reduce your performance. Simple, non-invasive interventions aimed at reducing sore muscles and improving performance are therefore needed.

Collagen is a protein found in connective tissue, skin, tendon, bone, and cartilage. Hydrolysed collagen is one such intervention that has shown promising initial results. Collagen is easily damaged following exercise. Importantly, collagen supplementation have been shown to improve muscle and tendon repair after exercise.

New collagen products are constantly coming to market, often without a scientific evidence base. One of which is a NatiivTM collagen, 97% pure type I collagen, which has been suggested to increase collagen delivery to the muscle. However, to date, no study has examined the effect of NatiivTM collagen on recovery from EIMD. In theory, if delivery of collagen to the muscle can be significantly increased with NatiivTM collagen, then we may be able to enhance recovery of sore muscles and improve performance following muscle damaging exercise.

Therefore, we aim to assess the effects of oral NatiivTM collagen supplementation on exercise performance, strength, inflammation and bone turnover vs hydrolysed collagen peptides and a placebo. We hypothesize that NatiivTM collagen will improve 1) exercise (i.e., jump) performance, 2) strength, 3) inflammation 4) pain and 5) bone turnover when compared with hydrolysed collagen peptides and placebo following a bout of damaging exercise.