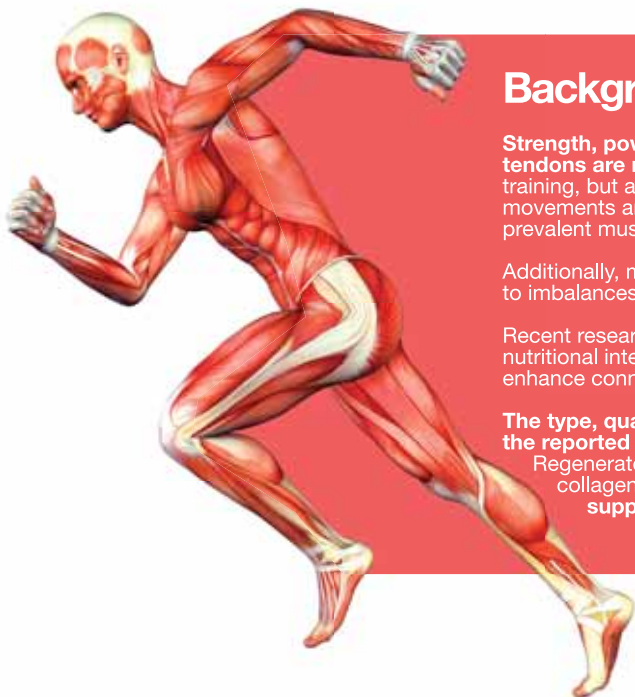


# collagen tech document

**We provide protein specific to muscle recovery, but what about supplementing to support the regeneration of connective tissue?**

## Fast Facts

- Approximately 30% of our total body protein is made from collagen making up tissues such as joints, ligaments, tendons, hair, skin nails and cartilage.
- Body Science Regenerate collagen is more effective- it contains bioactive hydrolysed collagen peptides which have been specifically isolated to enhance regeneration of tendons and ligaments.
- Tendons and ligament adapt to load at a slower rate compared to muscle, which can increase risk of injury to due imbalanced development.
- Over-use and aging can lead to tissue damage leading in turn to increased injury risk.
- Nutritional supplementation with collagen can assist in strengthening connective tissues such as tendons, ligaments and cartilage; tissues which associated with a large majority of injuries within the athletic population.
- Collagen supplementation has been shown to improve recovery from tendon injuries when used in combination with a structured rehabilitation program.
- Connective tissues, such as tendons, have limited blood supply, which can impair delivery of nutrients to the injury site for repair.
- Providing supplementation around training/rehabilitation uses loading of the tissues to 'bathe' the tissue in extra peptides which can enhance uptake and trigger resynthesis.
- 5-15g of collagen supplementation given around loading exercises can improve connective tissue integrity for prevention of injury and enhance recovery from soft tissue injuries.



## Background

**Strength, power, and speed are produced via rigid tendons, however rigid tendons are more prone to injury.** They can become rigid from high volumes of training, but also from inactivity. In sports where high volumes of plyometric movements are performed, tendon and ligament injuries are some of the most prevalent musculoskeletal complaints in athletes.

Additionally, muscle and connective tissues develop at different rates, which can lead to imbalances, further increasing injury risk.

Recent research has revealed that loading protocols combined with targeted nutritional interventions using collagen peptides can improve collagen synthesis and enhance connective tissue healing.

**The type, quality and timing of collagen supplementation is critical for ensuring the reported benefits of supplementation are achieved.** Body Science Collagen Regenerate is formulated using patented TENDOFORTE® bioactive hydrolysed collagen peptides making it one of the only **clinical grade collagen supplements** on the sports supplement market.

# BSc Collagen Regenerate & TENDOFORTE®

- Collagen regenerate is Australia's FIRST bio-active collagen peptide for tendons & ligaments
- Body Science Collagen Regenerate uses the clinically tested TENDOFORTE® collagen protein which has been used in multiple clinical trials in Australia, the UK and the US.
- Body Science Collagen Regenerate delivers bioactive collagen peptides specifically formulated for tendon and ligament regeneration enhancing absorption and delivery.
- Collagen Regenerate can be used in lower doses around training to boost collagen synthesis and prevent injury or during athlete recovery periods in combination with rehabilitation protocols to enhance recovery.
- Body Science Collagen Regenerate includes 50mg of Vitamin C to assist in connective tissue synthesis
- Collagen Regenerate is HASTA certified
- The most versatile collagen on the market. For professional athletes, functional trainers, bodybuilders, rehab patients, the general and elderly population, endurance sports athletes.



## Prescribing collagen supplementation

- Low dose for prevention and additional support in the recovery period: 5g daily peri-training
- High dose for recovery of specific tissue damage: 10-15g daily during rehabilitation

## Research bites



- In a 24-week RCT, Clarke et al (2008) found that supplementation with 10g of hydrolysed collagen reduced knee pain in athletes and may help reduce risk of joint deterioration via improved collagen synthesis.
- In 2011 McAlindon used 10g of collagen supplementation in a trial which ran for 48 weeks and showed statistically significant increases in knee cartilage generation for participants with mild knee osteoarthritis.
- In 2017 Shaw et al completed a randomized double-blind cross over trial found that supplementation with 5-15g vitamin C enriched collagen 1 hour before connective tissue loading enhanced collagen synthesis after exercise.

## References:

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Gregory Shaw, Ann Lee-Barthel, Megan LR Ross, Bing Wang, Keith Baar, Vitamin C-enriched gelatin supplementation before intermittent activity augments collagen synthesis, *The American Journal of Clinical Nutrition*, Volume 105, Issue 1, January 2017, Pages 136-143, <https://doi.org/10.3945/ajcn.116.138594>

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