

## Liquid BioCell™ May Improve Recovery Following Weight Training Exercise: Study

Feb 21, 2015

### Supplements containing Liquid BioCell™ may protect the connective tissue of the musculoskeletal system and enhancing recovery from intense exercise, says preliminary data from a proof-of-concept study

Six weeks of intake for the collagen ingredient were associated with an attenuation of deleterious changes in muscle tissue damage and inflammatory biomarkers including creatine kinase, lactate dehydrogenase, and C-reactive protein, according to findings published in the Proceedings of the Eleventh International Society of Sports Nutrition (ISSN) Conference and Expo.

Liquid BioCell™ is described as a unique, patented liquid collagen matrix. The three main constituents, collagen type II, chondroitin sulfate, and hyaluronic acid, are reduced to highly-bioavailable, very low molecular weight forms through a hydrolysis process.

Extending its market-leading position as a key joint and skin health ingredient, this new clinical study in recreationally active healthy subjects provides intriguing dataset suggesting that this patented, research-backed dietary supplement has promising new applications in sports nutrition.

Healthy joints are essential for any sports related activity, from cardio to resistance training. Equally important are the neighboring connective tissues surrounding the joints such as tendons and ligaments, which help facilitate flexibility and movement while protecting against injury. Whether you are aiming for prevention or trying to return to normal training after an injury, you need a consistent supply of connective tissue-specific nutrients that provide the biochemical precursors and building blocks needed to promote optimal joint health.

Liquid BioCell™ has these molecular components which were found to impact key biochemical markers of connective and skeletal muscle tissue damage and enhance stress resilience following intense resistance exercise - without the potential undesirable side effects of pain medications.

### Study details

Investigators from the Center for Applied Health Sciences (CAHS) recruited eight healthy, recreationally active people with an average age of 29 to participate in their study. Volunteers were randomized to consume three grams per day of the collagen or placebo for six weeks. All the participants underwent an upper body muscle-damaging resistance exercise challenge on day 43, and a re-challenge three days later.

Results showed that the collagen supplements were associated with the attenuation in increases of creatine kinase, lactate dehydrogenase, and C-reactive protein that were observed in the placebo group.

In addition, bench press repetitions decreased by 60% and 55% at days 43 and 46, respectively, in the placebo group, but this only by 49% and 43%, respectively in the collagen group.

“The preliminary data of this proof-of-concept study suggests that daily intake of BCC for 6 weeks may favorably impact key biochemical markers of connective and skeletal muscle tissue damage and enhance stress resilience following intense resistance exercise,” wrote the researchers. “Supplementation was well tolerated and did not adversely affect markers of health or side effect profiles.”

The company is planning additional trials to corroborate the findings, and they are in the protocol development stage of a follow up larger study.

Contact your Independent Jusuru Representative for more information.

