

The Influence of Hydrolyzed Cartilage Collagen on General Mobility and Wellbeing of an Active Population

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Abstract : Recent studies show that enzymatically hydrolysed collagen is absorbed and distributed to joint tissues, where it has analgesic and active anti-inflammatory properties. Reviews of the associated relevant literature also support this theory. However, these studies are all using hydrolyzed collagen from animal hide or skin. This study looks into the effect of daily supplementation of hydrolyzed cartilage collagen (HCC), which has a different composition. A consumer study was set up using a double-blind placebo-controlled design with a control group using twice a day 0.5gr of maltodextrin and an experimental group using twice 0.5g of HCC, over a trial period of 12 weeks. A follow-up phase of 4 weeks without supplementation was taken into the experiment to investigate the 'wash-out' phase. As this consumer study was conducted during the lockdown periods, a specific app was designed to follow up with the participants. The app had the advantage that in this way, the motivation of the participants was enhanced and the drop-out range of participants was lower than normally seen in consumer studies. Participants were recruited via various sports and health clubs across the UK as we targeted a general population of people that considered themselves in good health. Exclusion criteria were 'not experiencing any medical conditions' and 'not taking any prescribed medication'. A minimum requirement was that they regularly engaged in some level of physical activity. The participants had to log the type of activity that they conducted and the duration of the activity. Weekly, participants were providing feedback on their joint health and subjective pain using the validated pain measuring instrument Visual Analogue Scale (VAS). The weekly report section in the app was designed with simplicity and based on the accuracy demonstrated in previous similar studies to track subjective pain measures of participants. At the beginning of the trial, each participant indicated their baseline on joint pain. The results of this consumer study indicated that HCC significantly improved joint health and subjective pain scores compared to the placebo group. No significant differences were found between different demographic groups (age or gender). The level of activity, going from high intensive training to regular walking, did not significantly influence the effect of the HCC. The results of the wash-out phase indicated that when the participants stopped the HCC supplementation, their subjective pain scores increased again to the baseline. In conclusion, the results gave a positive indication that the daily supplementation of HCC can contribute to the overall mobility and wellbeing of a general active population

Keywords : VAS-score, food supplement, mobility, joint health

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