

Jump training and collagen supplementation for bone health

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON25714

Source

Nationaal Trial Register

Brief title

CollaBone

Health condition

Osteoporosis / low bone mineral density

Sponsors and support

Primary sponsor: HAN University of Applied Sciences

Source(s) of monetary or material Support: N/A

Intervention

Outcome measures

Primary outcome

Lumbar spine BMD

Secondary outcome

Blood markers of bone metabolism (P1NP, CTX).

Study description

Background summary

Bone health is a critical factor for athletes as bones provide the levers for muscles to move the joints, and strong bones decrease the risk of bone fractures. Particularly cyclist can benefit from exercise and nutrition interventions to stimulate bone health, as this population is characterized by an impaired bone mineral density (BMD). Jumping exercise has been identified as a feasible and effective exercise intervention to increase BMD. Furthermore, preliminary evidence suggests that collagen supplementation may also stimulate bone collagen synthesis. It is currently unknown whether combined collagen supplementation and jump training can increase BMD in elite cyclists. The main objective of the current project is to assess the effect of long-term jump training combined with collagen supplementation on BMD in elite cyclists.

Study objective

Long-term (18 weeks) jump training combined with collagen supplementation will increase BMD in elite cyclists.

Study design

PRE (week -1), POST (week 19)

Intervention

Jump training and collagen supplementation

Contacts

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Eligibility criteria

Inclusion criteria

- Elite cyclists status
- Age ≥ 16 and ≤ 35 years.
- Willing to give blood samples
- Willing to comply with study procedures

Exclusion criteria

- Blood donation during the study period
- Severe allergy to nuts or intolerance to gluten, as supplements are being produced in factory that may have used nuts or gluten previously
- Use of antibiotics in the past month
- Medical condition that can interfere with the study outcome (i.e. cardiovascular disease, pulmonary disease, rheumatoid arthritis, orthopaedic disorders, renal disease, liver disease, diabetes mellitus, inflammatory disease, cognitive impairment, and thyroid or parathyroid disease)
- Use of medications known to interfere with selected outcome measures (i.e. systemic corticosteroids)
- (Chronic) injuries of the locomotor system that can interfere with the intervention.
- Current participation in another biomedical research study.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL	
Recruitment status:	Recruitment stopped

Start date (anticipated):	11-10-2021
Enrollment:	34
Type:	Actual

IPD sharing statement

Plan to share IPD: No

Ethics review

Positive opinion	
Date:	05-10-2021
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL9770
Other	METC Zuyderland : METCZ20210113

Study results