

The effects of krill oil on resistance exercise

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Registration date 31/10/2017	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 16/10/2018	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

Resistance training describes a type of training where you move against a force that resists your movement. Krill Oil is a supplement that could be helpful to those who are doing resistance training.

The aim of this study is to investigate the effect of a nutritional intervention, Krill Oil, in combination with resistance training on muscular health in healthy participants.

Who can participate?

Males aged 18 to 30 years old who are currently doing resistance training at least two times per week for the past six months.

What does the study involve?

Participants undergo a resistance training program (programmed, non-linear training split) four days per week for a period of 8 weeks. Participants are randomly allocated to one of two groups. Those in the first group receive 3grams of a placebo (a dummy capsule) that contains safflower oil. Those in the second group receive the Krill oil (3 grams) capsule. Supplements are consumed prior to workouts on training days while eating breakfast on non-training days. Participants are assessed for their body composition and muscle strength after eight weeks.

What are the possible benefits and risks of participating?

Participants may benefit from an increase in lean body mass and strength. Participation in exercise includes the potential risk of injury.

Where is the study run from?

Applied Science and Performance Institute (USA)

When is the study starting and how long is it expected to run for?

January 2016 to December 2016

Who is funding the study?

Rimfrost USA (USA)

Who is the main contact?

Dr Jacob Wilson

Contact information

Type(s)

Scientific

Contact name

Dr Jacob Wilson

Contact details

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Additional identifiers

Protocol serial number

KrillOil002

Study information

Scientific Title

The effects of krill oil supplementation combined with resistance training on body composition and athletic performance

Study objectives

The aim of this study is to investigate the ability of Krill Oil to augment resistance training-induced changes in body composition and performance.

Ethics approval required

Old ethics approval format

Ethics approval(s)

IntegReview IRB, Austin, TX, 14/03/2016, ref: Protocol Number: 7952

Study design

Single-center randomised double-blind placebo-controlled parallel interventional study

Primary study design

Interventional

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Healthy volunteers

Interventions

Participants undergo a resistance training program (programmed, non-linear training split) four days per week for a period of 8 weeks.

Participants are allocated to one of two groups. Those in the first group receive 3 grams of Placebo (safflower oil) in a softgel 6500 mg capsule. Those in the second group receive 3 grams of Krill (Euphausia superba) Oil (Rimfrost Sublime, Rimfrost USA LLC, Merry Hill, NC, USA, Lot 8723-15-01-03), administered as 6 500mg softgel capsules.

Supplements are consumed pre-workout on training days, and with breakfast on non-training days.

Participants are followed up for their body composition using the whole-body Dual-Energy X-ray Absorptiometry (DXA) at baseline and 8 weeks. Participants are assessed for their strength using one repetition maximum (1RM) on a bench press and leg press at baseline and 8 weeks.

Intervention Type

Supplement

Primary outcome(s)

1. Body composition is measured using the whole-body Dual-Energy X-ray Absorptiometry (DXA) at baseline and 8 weeks
2. Strength is measured using one repetition maximum (1RM) on a bench press and leg press at baseline and 8 weeks

Key secondary outcome(s)

1. Perceptual Measures is measured using perceived recovery at beginning and end of every week
2. Cognition is measured using a Stroop Test at baseline and eight weeks
3. Safety is measured using comprehensive metabolic panel (CMP) at baseline and eight weeks
4. Complete blood count (CBC) and lipid panels is measured using blood tests at baseline and eight weeks

Completion date

31/12/2016

Eligibility

Key inclusion criteria

1. Males 18 to 30 years of age
2. Resistance training at least 2 times per week for the past six months
3. Minimum of 1 year of training experience active
4. Currently resistance training

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

Male

Key exclusion criteria

1. Free of musculoskeletal, metabolic, and respiratory disorders
2. Free of cardiovascular disease
3. No musculoskeletal injuries with the last six months
4. No history of smoking or drug use
5. No history of excessive alcohol consumption
6. Not taking prescription medication
7. Have not used a fish oil-, thermogenic-, protein-, amino acid-, or creatine supplement within the prior two months
8. Have not habitually used caffeine (e.g. more than 2 cups of coffee per day)

Date of first enrolment

15/03/2016

Date of final enrolment

01/11/2016

Locations**Countries of recruitment**

United States of America

Study participating centre

Applied Science and Performance Institute

Tampa

United States of America

33607

Sponsor information**Organisation**

Rimfrost USA

ROR

<https://ror.org/02q6tz689>

Funder(s)

Funder type

Industry

Funder Name

Rimfrost USA

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Dr Jacob M Wilson, jwilson@theaspi.com.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	26/04/2018		Yes	No