**Young participants receiving C and E vitamin or placebo**

- Familiarization to tests and exercises: Weeks -2-3
- Pre-tests: DXA, Inbody, 1RM, MVC, MRI, USI, biopsy and blood samples: Week -1
- Group randomization: Week 1
- Start training: Week 4-6
- Midway tests: and measurements and acute experiment: Week 10-11
- Post-tests: DXA, Inbody, 1RM, MVC, MRI, USI, biopsy and blood samples

**Elderly participants receiving C and E vitamin or placebo**

- Familiarization to tests and exercises: Weeks -2-3
- Pre-tests: DXA, Inbody, 1RM, USI, VO₂, blood sample: Week -1
- Group randomization: Week 1
- Start training: Week 4
- Midway tests: Inbody, 1RM, USI: Week 8
- Midway tests: Inbody, 1RM, USI: Week 13-14
- Post-tests: DXA, Inbody, 1RM, USI, VO₂, blood sample