

# Measuring Athletes' Risk of Cardiovascular Events - Exercise-Induced Cardiac Troponin Release and Coronary Atherosclerosis in Amateur Athletes

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Recruiting
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON24615

### Source

Nationaal Trial Register

### Brief title

MARC-EXERSCIENCE

### Health condition

Coronary atherosclerosis

## Sponsors and support

**Primary sponsor:** Department of Physiology, Radboudumc

**Source(s) of monetary or material Support:** Department of Physiology, Radboudumc

## Intervention

## Outcome measures

### Primary outcome

The primary aim of this explorative study is to compare exercise-induced cardiac troponin elevations between athletes with different levels of coronary atherosclerosis.

### **Secondary outcome**

The secondary aim is to compare exercise responses to other cardiac biomarkers across subgroups, whereas physiological and biochemical responses are assessed to gain more insight in the potential underlying mechanisms of accelerated coronary atherosclerosis in amateur athletes.

## **Study description**

### **Background summary**

In this study we want to compare exercise-induced cardiac troponin elevations between athletes with different levels of coronary atherosclerosis.

### **Study objective**

We hypothesize that athletes with the most severe coronary atherosclerosis show an exaggerated exercise-induced cardiac biomarker elevation compared to athletes without coronary atherosclerosis.

### **Study design**

Timepoints for blood withdrawal. Baseline (before exercise test), at 30 minutes during exercise and at 0/30/60/120 and 180 minutes after exercise cessation

## **Contacts**

### **Public**

Radboudumc Nijmegen  
Femke de Vries

024 - 36 13 650

### **Scientific**

Radboudumc Nijmegen  
Femke de Vries

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## Eligibility criteria

### Inclusion criteria

- Participation in MARC-2 study (so recent information about coronary atherosclerosis is known).
- Availability of recent (<2 years) contrast enhanced coronary CT-scan data
- Willingness to be approached for participation in future research (as indicated on the informed consent form of the MARC-2 study)
- Able to perform a  $\pm 1.5$  hour exercise test on a bicycle

### Exclusion criteria

- Unable to give informed consent
- Presence of a stent in any coronary artery or undergone coronary artery bypass surgery
- Not cleared for exercise training by a cardiologist following the MARC-2 study coronary CT-scan findings
- Absolute contra-indications for an exercise test (as indicated by the Standard Operating Procedure guidelines of the department of Physiology)
- Participation in an interventional study targeting cardiovascular health

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

### Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	06-10-2020

Enrollment: 60  
Type: Anticipated

## IPD sharing statement

**Plan to share IPD:** No

## Ethics review

Positive opinion  
Date: 06-10-2020  
Application type: First submission

## Study registrations

### Followed up by the following (possibly more current) registration

ID: 49634  
Bron: ToetsingOnline  
Titel:

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

No registrations found.

## In other registers

Register	ID
NTR-new	NL8982
CCMO	NL74326.091.20
OMON	NL-OMON49634

## Study results