

Effect van MCT inname in gezonde personen

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to test if oral medium-chain triglycerides (MCT) is directly oxidized and/ or elongated to long-chain triglycerides (LCT) under the following conditions: fasted/fed

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON25246

Bron

Nationaal Trial Register

Verkorte titel

MCT studie

Aandoening

long-chain fatty acid oxidation disorders, CPT2D, LCHADD, MTPD, VLCADD

Ondersteuning

Primaire sponsor: Amsterdam UMC AMC

Overige ondersteuning: Nutricia Advanced Medical Nutrition

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

- Quantification of oxidation rate of MCT, calculated from ^{13}C enrichment of breath CO_2
- Testing if MCT is elongated by measuring ^{13}C enrichment of C12-22 of plasma FFA, TG, PL, CE, VLDL, LDL and HDL.

Toelichting onderzoek

Achtergrond van het onderzoek

For patients with a disorder of the carnitine cycle or long-chain fatty acid oxidation (lcFAO), a long-chain triglyceride (LCT) restricted diet, enriched with medium-chain triglycerides (MCT), is currently one of the few therapeutic options recommended by physicians. The effect of oral intake and utilization by the human body has been poorly understood and some studies even suggest that MCT is elongated to LCT in the body. Since lcFAO patients are unable to oxidize LCT, this could mean that the diet has no benefit compared to a regular diet. Our study intends to test the uptake and metabolic route of oral MCT in healthy subjects under different circumstances. We will first perform a small pilot with one healthy subject to determine the optimal conditions for the actual study.

In the pilot we found that our research set-up allows accurate measurement of uptake and metabolism of the oral MCT-label. In the pilot study the subject was in resting conditions and fasted. Now we want to proceed with the actual study in which we will investigate effect of exercise and fed condition on the oxidation and/or elongation of the MCT label. The results of the latter will help to determine the usefulness of MCT in the diet of lcFAO patients.

Doel van het onderzoek

to test if oral medium-chain triglycerides (MCT) is directly oxidized and/ or elongated to long-chain triglycerides (LCT) under the following conditions: fasted/fed

Onderzoeksopzet

2 testdays

Onderzoeksproduct en/of interventie

MCT emulsion (liquigen®), tracer: glycerol-tri(octanoate-1,2,3,4-13C4)

Contactpersonen

Publiek

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Healthy male
- Age 18+
- BMI 18-25 kg/m²

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Hypertriglyceridemia
- Dyslipidaemia
- Acute or chronic disease that would interfere with the subject's safety and ability to comply with protocol requirements

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Niet-gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	15-03-2018
Aantal proefpersonen:	4
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies	
Datum:	11-12-2018
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 46931
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL7417

Register

NTR-old

CCMO

OMON

ID

NTR7650

NL59693.018.16

NL-OMON46931

Resultaten