Intra- and inter-rater reliability of measuring abdominal and diaphragm muscle thickness by ultrasound in healthy individuals.

Gepubliceerd: 14-09-2018 Laatst bijgewerkt: 18-08-2022

We hypothesize a good to excellent intra- and inter-rater reliability of measuring abdominal and diaphragm muscle thickness by ultrasound.

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON23352

Bron
Nationaal Trial Register

Aandoening

reliability, betrouwbaarheid, diaphragm, diafragma, transversus abdominis, obliquus internus, abdominal muscles, buikspieren, ultrasound, echografie, muscle thickness, spierdikte

Ondersteuning

Primaire sponsor: Fontys University
Overige ondersteuning: Not applicable

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Muscle thickness (mm)

Toelichting onderzoek

Achtergrond van het onderzoek

Musculoskeletal ultrasound (MSU) is an increasingly popular tool utilized by health care professionals. It is used on several steps of the clinical process and could be valuable for conditions such as low back pain. The lateral abdominal muscles and diaphragm play a crucial role in the etiology of low back pain and could be examined using MSU. However, the device remains user-dependent and aspects such as reliability must be examined in order to establish its role in clinical settings. Therefore, the aim of this study is to investigate intra- and inter-rater reliability of MSU when measuring the transverse abdominis (TrA), internal oblique (IO) and diaphragm thickness at 3 respiratory moments. An observational study will be conducted. The assessors will receive 20 hours of training. Sixty-five healthy subjects aged 18-29 will be included. Subjects will be evaluated in supine and during upright standing and at respiratory pause, full inhalation and maximal exhalation. Thickness measurements will be performed using relevant software. The intra- and inter-rater reliability will be calculated using intra-class correlation coefficients (ICC) and standard error of measurement (SEM).

Doel van het onderzoek

We hypothesize a good to excellent intra- and inter-rater reliability of measuring abdominal and diaphragm muscle thickness by ultrasound.

Onderzoeksopzet

Day 1: timepoint 1 and timepoint 2

Onderzoeksproduct en/of interventie

Not applicable

Contactpersonen

Publiek

Wetenschappelijk

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• age between 18 and 29 years old

• male and female

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• voice impairments in the last three weeks (e.g., hoarseness)

• an episode of low back pain in the last 6 months

• respiratory disease (e.g., COPD, asthma)

• neuromuscular disorder

• pregnancy

• previous surgery in the abdominal area

• body mass index (BMI) above 30 kg/m2

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	N.v.t. / één studie arm

Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	17-09-2018
Aantal proefpersonen:	65
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	14-09-2018
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL7388
NTR-old	NTR7596
Ander register	: Following

Resultaten