Comparison of methods measuring body fat and body fat distribution in six- and seven-year-old children.

Published: 19-07-2006
Last updated: 14-05-2024

This study will compare and validate different methods to estimate body fat and body fat distribution, respectively, in six- to seven-year-old children.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON29801

Source
ToetsingOnline

Brief title
Assessing body fat and body fat distribution

Condition

- Other condition

Synonym
overweight and obesity

Health condition

overgewicht en obesitas

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: body composition, body fat distribution, children, validation

Outcome measures

Primary outcome

1. Total amount of body fat.

2. Body fat distribution.

Secondary outcome

Not applicable.

Study description

Background summary

Obesity has become a worldwide problem. Not only adults, but also children and adolescents are frequently diagnosed with overweight and obesity. Treatment and prevention of obesity in an early stage of life reduces risks and complications in later life. Both the amount of body fat and body fat distribution are very important markers to assess obesity and it*s possible consequences. A range of methods is available for assessing body fat and body fat distribution. However, the applicability of these methods in prepubertal children is not well known.

Study objective

This study will compare and validate different methods to estimate body fat and body fat distribution, respectively, in six- to seven-year-old children.

Study design

This observational, cross-sectional study will compare measurements of body fat distribution (ultrasound, abdominal bioelectrical impedance analysis, waist- and hip-circumferences and skinfold thickness measurements) to the gold standard for body fat distribution, computed tomography. For total body fat, no

gold standard is available in children and all measurements of hand-to-foot bioelectrical impedance analysis, isotope dilution, DEXA and skinfolds will be compared to the frequently used body mass index (BMI).

Study burden and risks

Burden and risks associated with participation in this study are minimal, since only non-invasive techniques will be used. Participation will comprise of one visit to the University Medical Center Groningen, guided by their parents or guardians and researchers from the department of Pediatrics.

Contacts

Public
Academisch Medisch Centrum

Hanzeplein 1
9700 RB Groningen
Nederland
Scientific
Academisch Medisch Centrum

Hanzeplein 1
9700 RB Groningen
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Children (2-11 years)

Inclusion criteria

Age: six to seven years old.
Written and informed consent.

Exclusion criteria

Medical condition affecting body composition
Use of medication known to affect body composition
Alterations in posture, eg amputation
Pacemaker

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	11-10-2006
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO

Date:	19-07-2006
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

No registrations found.

In other registers

Register	ID
CCMO	NL11374.042.06