

Effect of IVF culture medium on health of IVF children

No registrations found.

Ethical review	Not applicable
Status	Recruitment stopped
Health condition type	-
Study type	-

Summary

ID

NL-OMON27714

Source

Nationaal Trial Register

Brief title

MEDIUM-KIDS

Health condition

In vitro fertilization (IVF)
Culture medium / Kweek medium
Cardiometabolic health / cardiometabole gezondheid
Growth / groei

Sponsors and support

Primary sponsor: Academic hospital Maastricht

Source(s) of monetary or material Support: March of Dimes

Intervention

Outcome measures

Primary outcome

Length, height, skinfold thickness, blood pressure, endothelial function, lipid profile in blood, cortisol level

Secondary outcome

DNA methylation

Study description

Background summary

From animal studies it is known that embryo culture leads to growth, behavioural and cardio-metabolic alterations in the offspring. Embryo culture effects on human offspring have long been uninvestigated, until a few years ago when we found that the medium used to culture embryos in an IVF treatment has a significant effect on the incidence of low birth weight (LBW) and on birth weight. As this was the first randomized trial on embryo culture effects in human, nothing is known about health effects at later stages of development. Since a lower birth weight is related to an increased risk for (adult) chronic diseases belonging to metabolic syndrome (Barker theory), our findings raise concern for the IVF progeny. In advance of diseases at adult age, we hypothesize that IVF culture medium affects parameters of metabolic syndrome at childhood stage.

Study objective

IVF culture medium affects parameters of metabolic syndrome at childhood stage

Study design

All children will be investigated at the age of 9 years old.

Intervention

The children in the IVF group are born after, as an embryo, being cultured in two different commercially available culture media. The two groups will be mutually compared as well as with a control group consisting of children that were conceived naturally.

Contacts

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Eligibility criteria

Inclusion criteria

IVF group: born after an IVF treatment at the MUMC applied in the period July 2003 – December 2006

CONTROL: 9 years old, singleton

Exclusion criteria

IVF group: Born after preimplantation genetic diagnosis (PGD)

CONTROL1: conceived by any form of assisted reproduction

CONTROL 2: having a disorder that affects lipid profile or glucose metabolism

Study design

Design

Intervention model: Other

Control: N/A , unknown

Recruitment

NL
Recruitment status: Recruitment stopped
Start date (anticipated): 15-11-2013
Enrollment: 731
Type: Actual

Ethics review

Not applicable
Application type: Not applicable

Study registrations

Followed up by the following (possibly more current) registration

ID: 44948
Bron: ToetsingOnline
Titel:

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

No registrations found.

In other registers

Register	ID
NTR-new	NL4083
NTR-old	NTR4220
CCMO	NL45845.068.13
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON44948

Study results

Summary results

N/A