

# Pilot study on the effect of different dietary fatty acids on impaired glucose tolerance in obese urban Gambian women

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<b>Registration date</b> 03/01/2007	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 03/12/2019	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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### Contact details

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## Additional identifiers

### Protocol serial number

Medical Research Council Gambia SCC Project # 854

## Study information

**Scientific Title**

Pilot study on the effect of different dietary fatty acids on impaired glucose tolerance in obese urban Gambian women

**Study objectives**

Whether modifying the ratio n-3:n-6 polyunsaturated fatty acid dietary intake could prevent deterioration of impaired glucose tolerance in obese Gambian women.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

The study was approved by the Gambia Government/MRC Joint Ethics Committee (Project # 816), approved March 2001.

**Study design**

Randomised double-blind control longitudinal intervention trial

**Primary study design**

Interventional

**Study type(s)**

Prevention

**Health condition(s) or problem(s) studied**

Obesity-related disease, non-insulin dependent diabetes mellitus

**Interventions**

Intervention group: High n-3 cooking oil (rapeseed oil) plus fish oil derived EPA/DHA capsules (3 g daily)

Control group: High n-6 cooking oil (sunflower oil) plus placebo corn oil capsules (3 g daily)

**Intervention Type**

Drug

**Phase**

Not Specified

**Drug/device/biological/vaccine name(s)**

n-3 cooking oil (rapeseed oil), n-6 cooking oil (sunflower oil), fish oil derived EPA/DHA capsules.

**Primary outcome(s)**

Outcomes were measured before baseline, at baseline, at three and six months of the intervention:

1. Full plasma and adipose tissue fatty acid analysis
2. Fasting glucose
3. Fasting insulin
4. Oral glucose tolerance test

**Key secondary outcome(s)**

1. Anthropometric measurements (fat mass and fat free mass, waist-to-hip ratio)
2. Diastolic and systolic blood pressure
3. Full lipid profile
4. Plasma Tumour Necrosis Factor (TNF)alpha and receptors
5. Plasma InterLeukin-6 (IL-6) and receptors
6. Sialic acid

**Completion date**

08/05/2002

## Eligibility

**Key inclusion criteria**

1. Female living in Bakau (urban area in the Gambia)
2. Aged 30 years or older
3. Being obese i.e. having a body mass index more than or equal to 27 kg/m<sup>2</sup>
4. Having an impaired glucose tolerance (oral glucose tolerance test; 120-minute glucose between 6.7 and 10.0 mmol/l)
5. Subjects consent

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

Female

**Key exclusion criteria**

Subjects diagnosed as diabetic by their doctor or on medication

**Date of first enrolment**

25/10/2001

**Date of final enrolment**

08/05/2002

## Locations

**Countries of recruitment**

United Kingdom

England

Gambia

**Study participating centre**  
**MRC International Nutrition Group**  
London  
United Kingdom  
WC1E 7HT

## Sponsor information

**Organisation**  
Medical Research Council (MRC) (UK)

**ROR**  
<https://ror.org/03x94j517>

## Funder(s)

**Funder type**  
Research council

**Funder Name**  
Medical Research Council (UK)

**Alternative Name(s)**  
Medical Research Council (United Kingdom), UK Medical Research Council, Medical Research Committee and Advisory Council, MRC

**Funding Body Type**  
Government organisation

**Funding Body Subtype**  
National government

**Location**  
United Kingdom

**Funder Name**  
Supplementary project grant to Gambia MRC Nutrition/NCD Programme

## Results and Publications

## **Individual participant data (IPD) sharing plan**

### **IPD sharing plan summary**

Not provided at time of registration