# Fruit juice, fruit and type 2 diabetes

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

# **Summary**

### ID

NL-OMON21161

Source NTR

#### **Health condition**

Pure fruit juice, fruit, Diabetes Mellitus Type 2, EPIC-NL, prospective cohort study.

### **Sponsors and support**

**Primary sponsor:** Netherlands Organisation for Scientific Research (NWO), Dutch Ministry of Health, Welfare and Sports (VWS), the Netherlands Organisation for Health Research and Development (ZonMW), World Cancer Research Fund (WCRF), European Commission (DG SANCO)

#### Intervention

#### **Outcome measures**

**Primary outcome** 

Type 2 diabetes

#### Secondary outcome

none

# **Study description**

#### **Background summary**

We will study the association of pure fruit juice and fruit consumption with type 2 diabetes in the European Prospective Investigation into Cancer and Nutrition-Netherlands (EPIC-NL) cohort. Furthermore, we examine whether pure fruit juice consumption has a different effect on the risk of type 2 diabetes for low or high fruit consumers, Cox proportional hazards models will be used to estimate hazard ratios (HRs) and 95% confidence intervals (CI).

#### Study design

Three sources for identification of possible type 2 diabetes cases were used: self-report, linkage with the national hospital discharge register (HDR) and urinary glucose strip test. Firstly, self-reported occurrence of diabetes was collected with two follow-up questionnaires at 3 – 5 years intervals. Secondly, diagnoses of diabetes were also obtained from the HDR that holds a hospital discharge diagnosis database from 1990 onwards. Thirdly, for the Prospect cohort only, incident type 2 diabetes cases were also identified via a urinary glucose strip test, sent out with the first follow-up questionnaire, for detection of glucosuria

#### Intervention

Cox proportional hazards models were used to estimate hazard ratios (HRs) and 95% confidence intervals (CI) for the association of fruit juice consumption and fruit consumption with diabetes. The first model was adjusted for age and sex. The second model was adjusted for age, sex, educational level, physical activity, smoking, family history of diabetes, alcohol, DHD15-index and fruit/fruit juice consumption. In the third model energy intake and in the fourth model BMI and waist circumference were added as covariates, considering these as potential intermediate factors.

# Contacts

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# **Eligibility criteria**

### **Inclusion criteria**

The EPIC-NL study consists of two cohorts: the MORGEN cohort and the Prospect cohort. The MORGEN cohort consists of men and women aged 20 – 65 years selected from random samples of the Dutch population in three towns in the Netherlands (Amsterdam, Doetinchem, Maastricht). The Prospect cohort consists of women, from the Dutch town Utrecht or its vicinity, who participated in a breast cancer screening program.

### **Exclusion criteria**

Prevalent diabetes, missing FFQ, implausible energy intake, missing follow-up, missing data on confounders.

# Study design

### Design

Study type:Observational non invasiveIntervention model:OtherControl: N/A , unknown

#### Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	01-01-2018
Enrollment:	37000
Туре:	Anticipated

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# **Ethics review**

Positive opinion Date: Application type:

08-04-2018 First submission

# 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
NTR-new	NL6939
NTR-old	NTR7135
Other	: MEC-TNO-93/01

# **Study results**