

# Triggers of behavioral and physiological reactions to odors, part 5

Published: 28-02-2015

Last updated: 14-04-2024

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<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Other condition
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON42256

### Source

ToetsingOnline

### Brief title

Odorful

### Condition

- Other condition

### Synonym

physiological responses; facial expressions

### Health condition

sensoriek en eetgedrag

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Wageningen Universiteit

**Source(s) of monetary or material Support:** HAK industries,HAK industries (geen invloed

op huidige studie, resultaten of publicaties), Wageningen Universiteit (opdrachtgever/verrichter van het onderzoek; werkgever). De 3e geldstroom sponsor (HAK industries) heeft geen invloed op de inhoud of details van de studie

## **Intervention**

**Keyword:** behavior, odor, physiology, valence

## **Outcome measures**

### **Primary outcome**

Behavioral parameters include analysis of facial expressions, emotional responses and explicit liking ratings. Physiological parameters include heart rate frequency, finger temperature, and galvanic skin response.

### **Secondary outcome**

possible correlations between the outcome measurements

## **Study description**

### **Background summary**

Emotional reactions are important drivers in food choice and food intake, and objective measurements of these reactions is therefore important. Previous research using physiological and behavioral measurements has demonstrated different emotional reactions of human subjects towards food aromas with certain qualitative (pleasant/unpleasant aroma) and quantitative (concentration) properties. Although the results are promising, the use of stimuli limits the systematic variation of the hedonic properties of the stimuli. To gain further insight in the emotional reactions to food, the proposed study will use odor stimuli with a larger range of pleasantness

### **Study objective**

The main objective is to gain insight in unconscious, physiological responses to common household odors with a large range of pleasantness.

### **Study design**

In the study, a group of adults will be exposed to 8 odors presented via an

olfactometer. Each odor will be presented 4 times, randomized. Physiological responses, facial expressions, emotional responses and liking ratings will be assessed

## **Intervention**

exposure to odors

## **Study burden and risks**

Subjects will participate in one experimental session that lasts in total 60 minutes, of which 30-45 minutes measuring. Subjects will be connected to an olfactometer via a small tube that is placed loosely in one of the subjects\* nostrils. Facial expressions will be recorded via a webcam. Subjects will be provided with sensors fitted to a finger and palm of their non-dominant hand. Experiences so far indicate that the sensors themselves are unlikely to cause discomfort. The risk associated with participation is negligible and the burden can be considered as minimal.

## **Contacts**

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## **Trial sites**

### **Listed location countries**

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

healthy

BMI between 18.5-25kg/m<sup>2</sup>

age between 18-35

female

normal sense of smell

### Exclusion criteria

Pregnancy

breastfeeding

smoking

history of heart problems

using medication (except paracetamol or oral contraceptives)

having the flu or current allergic symptoms

## Study design

### Design

**Study type:** Interventional

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Other

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 08-06-2015

Enrollment: 28

Type:

Actual

## Ethics review

Approved WMO

Date:

28-02-2015

Application type:

First submission

Review commission:

METC Wageningen Universiteit (Wageningen)

## 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

NL52249.081.15