

# The effects of stress on involuntary memories

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON28787

### Source

Nationaal Trial Register

### Health condition

traumatic stress; posttraumatic stress disorder

## Sponsors and support

**Primary sponsor:** Academic Medical Center

**Source(s) of monetary or material Support:** Study is funded by a Veni-grant of ZonMw to dr. Mirjam van Zuiden

## Intervention

## Outcome measures

### Primary outcome

Differences between stressor and control condition in: salivary cortisol and alpha amylase output as measured six times during the experimental paradigm and the total frequency of intrusive memories during the 7 days following the experimental paradigm.

### Secondary outcome

- Differences between stressor and control condition in accuracy of voluntary memory and

characteristics of intrusive memories related to the trauma film.

- Associations between baseline glucocorticoid receptor functioning, cortisol and alpha amylase stress reactivity during the experimental paradigm and voluntary memory accuracy and intrusive memory frequency and characteristics.

## Study description

### Background summary

Background of the study:

To improve prevention of posttraumatic stress disorder, it is important to increase our understanding of the biological and cognitive mechanisms underlying the development of its hallmark symptom, i.e. intrusive memories. Individual variation in endocrine stress reactivity to the traumatic event, resulting in decreased contextual memory processing, is thought to underlie intrusive memory development. Studying these process in more detail is only feasible in healthy individuals using an experimental trauma paradigm. However, the best currently available paradigm, the trauma film paradigm (consisting of watching a film with aversive graphic footage of traumatic events) does not result in consistent activation of the two most important stress systems, i.e. the autonomic nervous system and hypothalamic-pituitaryadrenal axis, limiting ecological validity of this paradigm and therefore hampering reliable investigations into intrusive memory development. Therefore, the aim of this study is to adapt this trauma film paradigm, which is expected to result in more robust endocrine stress responses and increased frequency of intrusive memories.

Objective of the study:

The primary objective is to investigate whether adding a brief mild psychosocial stressor (socially-evaluated cold pressor test) immediately prior to an experimental analogue traumatic event (trauma film paradigm) increases acute endocrine stress reactivity (salivary cortisol and alpha amylase output) throughout the experimental paradigm and increases intrusion frequency in the following week.

Secondary, it will be investigated whether addition of a stressor affects voluntary memory accuracy and intrusion characteristics related to the trauma film. Furthermore, the impact of individual variation in endocrine stress reactivity throughout the paradigm and glucocorticoid receptor functioning on voluntary and intrusive memories related to the trauma film will be investigated.

### Study objective

Primary: Adding a brief mild psychosocial stressor immediately prior to an experimental analogue traumatic event (the frequently used and well-validated trauma film paradigm) will increase the ecological validity of the analogue traumatic event, by increasing the acute stress reactivity and intrusion frequency in the following week.

## **Study design**

T0: screening

T1: baseline session

T2: experimental session

T2.1-2.17: 7 day intrusion monitoring

T3: one-week follow-up session

## **Intervention**

Socially-evaluated cold pressor task versus warm water control condition without social evaluation. Additionally, all participants will watch a trauma film, known to induce intrusive memories in the following week.

## **Contacts**

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## **Eligibility criteria**

## Inclusion criteria

Male sex;

- Age 18-40 years;
- Caucasian ethnic background;
- Body Mass Index (BMI) between 18.5 and 30;
- Fluent in Dutch language (oral and written);
- In possession of a smartphone (IOS or Android system), because of smartphone application used for intrusion diary .

## Exclusion criteria

- Current major medical disorder;
- Current use of medications known to impact ANS and HPA axis function;
- Lifetime psychiatric diagnosis;
- Current significant anxiety or depressive symptoms, as objectified with the DASS-21;
- Current significant PTSD symptoms, as objectified with the PCL-5;
- Previous exposure to the traumatic events portrayed in the film;
- Current habitual smoking.

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Placebo

## Recruitment

NL  
Recruitment status: Pending  
Start date (anticipated): 16-10-2017  
Enrollment: 68  
Type: Anticipated

## Ethics review

Positive opinion  
Date: 05-10-2017  
Application type: 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 NL6550

NTR-old NTR6739

Other METC AMC / ZonMW Veni dossiernummer : 2016\_354 / 91617037

## Study results

### Summary results

NA