

Effects of Tryptophan Supplementation on Feedback Processing in Healthy Volunteers

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Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON42013

Source

ToetsingOnline

Brief title

TrypSup

Condition

- Other condition

Synonym

Healthy Volunteers

Health condition

Gezonde proefpersonen

Research involving

Human

Sponsors and support

Primary sponsor: Erasmus Universiteit Rotterdam

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Feedback, Food Supplement, Social Cognition, Tryptophan

Outcome measures

Primary outcome

Number of accepted unfair offers in the Ultimatum Game

Secondary outcome

1. Response bias in terms of the percentage positive expectations the social evaluation task.
2. Remedial action in terms of adjustment of estimation time in the time estimation paradigm.
3. Brain responses to offers in the Ultimatum Game, social evaluations in the social evaluation task and performance feedback in the time estimation paradigm.

Study description

Background summary

Serotonin is thought to play an important role in social interaction (Colzato et al., 2013; Crockett et al., 2008). It has been found that experimentally lowering the level of serotonin by tryptophan depletion modulates behavior in a socio-economic task called the Ultimatum Game. The effect of increasing of serotonin levels by means of tryptophan supplementation, however, is unknown. Therefore we would like to replicate the study of Crockett et al., but instead of decreasing serotonin levels we would like to examine the effect of increasing serotonin levels.

Study objective

Primary objective is to examine the effect of tryptophan supplementation on the number of accepted unfair offers in the Ultimatum Game. Secondary objectives are to examine the effect of tryptophan supplementation on the response bias in a social evaluation task and remedial action in a time estimation task. A final secondary objective is to examine the effect of tryptophan supplementation brain responses to important events in the three mentioned tasks.

Study design

Intervention study

Intervention

Supplementation of 0.8 grams tryptophan or placebo.

Study burden and risks

Participants have to ingest a drink containing a supplement of tryptophan (0.8 g) or placebo. After the drink they have to wait for an hour. In this hour participants complete a number of questionnaires. Finally, after the 1 hour waiting period participants perform a number of psychological tasks and complete a second set of questionnaires. Tryptophan is an essential amino acid that is present in almost every protein containing food. In this low dose there are no risks associated with tryptophan supplementation and participants do not benefit from participation in another way than receiving a small amount of money for their voluntary participation.

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

1. Age between 18 and 65
2. Sufficient understanding of Dutch

Exclusion criteria

1. Cardiac, hepatic, renal, neurological or psychiatric disorders
2. Personal or family history of depression
3. Migraine
4. Drug use and medication use

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Other

Recruitment

NL
Recruitment status: Pending
Start date (anticipated): 01-06-2015
Enrollment: 48
Type: Anticipated

Ethics review

Approved WMO
Date: 01-06-2015
Application type: First submission
Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL52484.078.15