

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Jun 2026

Investigating the effect of drinking green tea on the total antioxidant capacity (TAC) of saliva in young smokers and non smokers

Protocol summary

Study aim

Investigating the effect of drinking green tea on the total antioxidant capacity (TAC) of saliva in young smokers and non-smokers

Design

A clinical trial with a control group, with parallel groups, double-blind, with an accessible and non-random sampling method, the trial phase does not include divisions and on 40 people.

Settings and conduct

All participants were asked to consume a total of two cups of green tea per day for three weeks. Each cup is prepared by brewing 2 grams of green tea (one green tea bag) in 150 ml of hot water (80 degrees Celsius) for 3 minutes. Then, unstimulated saliva samples are collected once at the beginning of the study and once at the end of the intervention, and the TAC of the samples is measured in the laboratory with the FRAP test. Venue: Birjand University of Medical Sciences

Participants/Inclusion and exclusion criteria

Inclusion criteria: the age of people should be between 20 and 27 years old and the population studied should be students of Birjand University of Medical Sciences. Exclusion criteria: existence of systemic pulmonary diseases and use of medicine or vitamin supplements in the last 3 months

Intervention groups

20 healthy smoking volunteers and 20 healthy non-smoking volunteers are asked to consume two cups of green tea per day for three weeks. Then, unstimulated saliva samples are collected once at the beginning of the study and once at the end of the intervention, and the TAC value of the samples is measured in the laboratory with the FRAP test.

Main outcome variables

Total antioxidant capacity (TAC) of saliva

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20231230060572N1**

Registration date: **2024-05-14, 1403/02/25**

Registration timing: **registered_while_recruiting**

Last update: **2024-05-14, 1403/02/25**

Update count: **0**

Registration date

2024-05-14, 1403/02/25

Registrant information

Name

Sajjad Shariati

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 56 3238 1704

Email address

s.shariati10@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-04-08, 1403/01/20

Expected recruitment end date

2024-07-10, 1403/04/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effect of drinking green tea on the total antioxidant capacity (TAC) of saliva in young smokers and non smokers

Public title

Investigating the effect of drinking green tea on the total antioxidant capacity (TAC) of saliva in young smokers and non smokers

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

The age of people should be between 20 and 27 years
The study population is students of Birjand University of Medical Sciences

Exclusion criteria:

Presence of systemic pulmonary diseases
Use of medicine or vitamin supplements in the last 3 months

Age

From **20 years** old to **27 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

The intervention is designed in such a way that the people under study or the participants and the people who are responsible for evaluating and analyzing the data do not know about the allocation of the intervention groups and are kept blind.

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Birjand University of Medical Sciences

Street address

Birjand University of Medical Sciences, Moalem Street

City

Birjand

Province

South Khorasan

Postal code

9717853-76

Approval date

2023-10-23, 1402/08/01

Ethics committee reference number

IR.BUMS.REC.1402.327

Health conditions studied

1

Description of health condition studied

Total antioxidant capacity of saliva

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Total antioxidant capacity of saliva

Timepoint

Measuring the total antioxidant capacity of saliva at the beginning of the study (before the start of the intervention) and three weeks after drinking green tea

Method of measurement

Determination of the total antioxidant capacity of saliva in the laboratory by spectrophotometer in terms of micromol/liter

Secondary outcomes

empty

Intervention groups

1

Description

The first Intervention group: 20 healthy smoking volunteers were asked to consume a total of two cups of green tea per day for three weeks. Each cup is prepared by brewing 2 grams of green tea (one green tea bag) in 150 ml of hot water (80 degrees Celsius) for 3 minutes. Then, unstimulated saliva samples are collected once at the beginning of the study and once at the end of the intervention, and the TAC value of the samples is measured in the laboratory with the FRAP test.

Category

Prevention

2

Description

The second intervention group: 20 healthy non-smoking volunteers were asked to consume a total of two cups of green tea per day for three weeks. Each cup is prepared

by brewing 2 grams of green tea (one green tea bag) in 150 ml of hot water (80 degrees Celsius) for 3 minutes. Then, unstimulated saliva samples are collected once at the beginning of the study and once at the end of the intervention, and the TAC value of the samples is measured in the laboratory with the FRAP test.

Category

Prevention

Recruitment centers**1****Recruitment center****Name of recruitment center**

Birjand University of Medical Sciences

Full name of responsible person

Sajjad Shariati

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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Full name of responsible person

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Dentresearch@bums.ac.ir

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Birjand University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Birjand University of Medical Sciences

Full name of responsible person

Sajjad Shariati

Position

Student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

Birjand University of Medical Sciences

Full name of responsible person

Sajjad Shariati

Position

Student

Latest degree

Medical doctor

Other areas of specialty/work

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

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Position

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Latest degree

A Level or less

Other areas of specialty/work

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available