

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Investigating the influence of chewing of sugar-free gum on whole saliva acidity (pH) in fasting situation and after consuming dietary sugar

Protocol summary

Summary

Purpose of This study is investigating of effects of sugar free gums chewing on hole saliva pH in fasting situation and after consumption of dietary sugar. This study is interventional clinical trial. Inclusion criteria: volunteers that systemically are healthy and don't use oral constipating drugs. samples shouldn't eat , drink or smoke in 1 last hour . Exclusion criteria: unnatural non-stimulatory saliva pH in fasting situation In this study participated 60 volunteers from students of dentistry university of yazd ,that contain 30 women and 30 men by average 20-25 years old, and divided to 2 groups contain 30 persons. In first group was estimated, pH of saliva in fasting situation, after 1 min gargling of sugary solution and after 5 min chewing of sugar free gum. In second group was estimated pH of saliva in fasting situation ,after 1 min gargling of sugary solution and after 1 min gargling of common water. Time of intervention: Sugary solution:1 min Water gargling: 1 min Sugar free gum: 5 min Primary outcome measure: changes of saliva pH the samples of saliva collected between 9-12 o'clock at morning by spitting method.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012121711791N1**

Registration date: **2013-01-04, 1391/10/15**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-01-04, 1391/10/15

Registrant information

Name

Jafar Farahmand

Name of organization / entity

Yazd Shadid Sadoughi University of Medical Science,
Dental School

Country

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Phone

+98 35 1621 2222

Email address

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Recruitment status

Recruitment complete

Funding source

Yazd Shahid Sadoughi University of Medical Science

Expected recruitment start date

2012-11-05, 1391/08/15

Expected recruitment end date

2012-12-15, 1391/09/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the influence of chewing of sugar-free gum on whole saliva acidity (pH) in fasting situation and after consuming dietary sugar

Public title

Investigating the influence of chewing of sugar-free gum on saliva

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: yazd dentistry students in by average 20-25 years old, that systemically are healthy and don't use oral constipating drugs. Also they are not in orthodontic treatment. samples shouldn't eat , drink or

smoke in 1 last hour . extrance criteria: unnatural non-stimulatory saliva pH in fasting situation(the natural average is 6.2-7.4)

Age

From **20 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Yazd Shahid Sadoughi University of Medical Science

Street address

Central part of the Shahid Sadoughi University of
Medical Science, Shahid Bahounar Square, Yazd, Iran

City

yazd

Postal code**Approval date**

2012-09-10, 1391/06/20

Ethics committee reference number

83153/1/17/پ

Health conditions studied**1****Description of health condition studied**

dental caries

ICD-10 code

K02.0

ICD-10 code description

Caries limited to enamel

Primary outcomes**1****Description**

pH of saliva

Timepoint

in fasting, after consumption of sugar, after intervention

Method of measurement

by electronic pHmeter in scale of 1-14

Secondary outcomes

empty

Intervention groups**1****Description**

intervention group: 1 min gargling of sugary
solution, then 5 min chewing of sugar free gum

Category

Prevention

2**Description**

control group: 1 min gargling of sugary solution, then 1
min gargling of water

Category

Prevention

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

Yazd Shadid Sadoughi University of Medical Science,
Dental School

Full name of responsible person

dr.Mirjalili Narges

Street address**City**

yazd

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

Yazd Shadid Sadoughi University of Medical Science,
Dental School

Full name of responsible person

Fatemeh Ezodini

Street address

Yazd Shahid Sadoughi University of Medical Science,
Dental School, Fazaye sabz Crossroad, Dahe-fajr Blv,
Yazd, Iran

City

yazd

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Yazd Shadid Sadoughi University of Medical Science,
Dental School

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

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

empty

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

Yazd Shadid Sadoughi University of Medical Science,
Dental School

Full name of responsible person

farahmand Jafar

Position

student

Other areas of specialty/work**Street address**

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Position

Specialist in Oral and Maxillofacial Medicine

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City

Yazd

Postal code**Phone**

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Fax**Email****Web page address****Sharing plan****Deidentified Individual Participant Data Set (IPD)**

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty