

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Jul 2026

Effect of the addition of pectin, inulin and resistant starch on the physico-chemical, rheology and organoleptic properties of prebiotic yogurt

Protocol summary

Summary

Objectives: Prebiotic products have great health benefits for the man. Yogurt is a food widely consumed in a variety of societies. The aim of the present study is to produce a type of prebiotic yogurt which not only exerts the expected health benefits for the man, but also has preference to the conventional type, regarding physicochemical, sensory and rheological characteristics. Then the product will be assessed for the mentioned features. Design: first 9 types of prebiotic yogurts using different dosages of the prebiotic substances and a control type will be prepared. In this study, to attain prebiotic characteristics in the products, 0.2%, 0.6% and 1% pectin, 1%, 3% and 5% inulin and 1%, 1.5% and 3.3% resistant starch will be used. One control sample (containing no prebiotic substance) will be produced as well. Chemical tests and viscometer will be used to assess physicochemical and rheological characteristics of the products respectively. Sensory evaluation of the products will be performed by 8 panelists which will be recruited randomly from among those volunteering to participate in the study. The participants should be devoid of any kinds of diseases (especially a cold) and should not smoke. A written consent will be obtained from all the subjects prior to the intervention. Conduct and Interventions: for sensory evaluation of the 10 types of yogurt produced (9 prebiotic yogurts with different dosages of pectin, inulin and resistant starch, and a control type) 100 grams of the sample will be given to the subjects who will be unaware of the type of yogurt they consume each time. After eating each sample, the relevant questionnaire designed on the basis of Hedonic system, will be completed by the participant. Different types of the yogurt will be assessed on different days. Each of the samples will be consumed only once by each participant (all in all 10 times of intaking the yogurts prepared). Data will be analyzed using SPSS ver.16.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201105315554N2**

Registration date: **2011-06-10, 1390/03/20**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2011-06-10, 1390/03/20

Registrant information

Name

Aziz Homayouni

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 1231 3431

Email address

homayounia@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tabriz University of Medical Sciences

Expected recruitment start date

2011-07-21, 1390/04/30

Expected recruitment end date

2012-03-18, 1390/12/28

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of the addition of pectin, inulin and resistant starch on the physico-chemical, rheology and organoleptic properties of prebiotic yogurt

Public title

Physico-chemical, rheological and organoleptic properties of prebiotic yogurt prepared with pectin, inulin and resistant starch in comparison to the conventional yogurt

Purpose

Prevention

Inclusion/Exclusion criteria

inclusion criteria: not having any diseases (including a cold), not smoking; exclusion criteria: having any diseases (including a cold), smoking

Age

From **20 years** old to **40 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **8**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

Street address

Golbad Ave

City

Tabriz

Postal code

Approval date

2011-04-17, 1390/01/28

Ethics committee reference number

908

Health conditions studied

1

Description of health condition studied

Healthy subjects

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Sensory evaluation of the two kinds of yogurt and comparing them

Timepoint

Exactly after the consumption of 100 grams of each kind of yogurt

Method of measurement

Hedonic system (questionnaire)

Secondary outcomes

empty

Intervention groups

1

Description

100 grams of prebiotic yogurt prepared with pectin, inulin and resistant starch

Category

Prevention

2

Description

100 grams of conventional yogurt available in the market

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Tabriz University of Medical Sciences

Full name of responsible person

Dr. Aziz Homayouni Rad

Street address

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Tabriz University of
Medical Sciences

Full name of responsible person

Dr. Mohammad Reza Rashidi

Street address

Golbad street

City

Tabriz

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

Yes

Title of funding source

Vice chancellor for research, Tabriz University of Medical
Sciences

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

Email

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

Tabriz University of Medical Sciences

Full name of responsible person

Dr. Aziz Homayouni Rad

Position

Assistant Professor, Department of Food Science and
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Other areas of specialty/work**Street address**

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Full name of responsible person

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Fax**Person responsible for updating data****Contact****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