

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Jul 2026

Effect of Inulin, Fructooligosaccharide and Poly dextrose fortification on Physico-chemical, Rheological and Organoleptic properties of Clear Apple Juice among students of Tabriz university of medical science for six month

Protocol summary

Summary

1) Objectives: Prebiotic products have great health benefits for the people. Clear apple juice is a beverage widely consumed in a world. The aim of the present study is to produce a type of prebiotic clear apple juice which not only exerts the expected health benefits for the people, but also being better than the conventional type, regarding physicochemical, rheological and sensory characteristics. then the product will be assessed for the mentioned structures. 2) Design: First 9 type of prebiotic clear apple juice using different dosages of the prebiotic compounds and a control type will be prepared. In this study to attain prebiotic characteristics in the products, 2.5%, 3.5% and 4.5% inulin, 2.5%, 3.5% and 4.5% fructooligosaccharide, and 2.5%, 3.5% and 4.5% poly dextrose will be used. Control sample (containing no prebiotic substance) will be produced as well. Chemical tests and rheometer will be used to assess physicochemical and rheological characteristics of the products respectively. Sensory evaluation of the products will be performed by 32 panelists. A written consent will be obtained from all the subjects prior to the intervention. 3) Setting and conduct: For sensory evaluation of the 10 types of clear apple juice 100 cc of the sample will be given to the subjects who will be unaware of the type of clear apple juice 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 of the clear apple juice 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 clear apple juice prepared). Data will be analyzed using SPSS ver.13.5. 4) Participants including major eligibility criteria: The participants should be devoid of any kinds of diseases (especially a cold) and should not smoke. 5)

Intervention: 100 cc of each type of 9 prebiotic clear apple juice with different dosages of inulin, fructooligosaccharide and poly dextrose, and a control type of clear apple juice. 6) Main outcome measures (variables): Sensory evaluation and compares each of the two types of clear apple juice.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201301155554N9**

Registration date: **2013-04-21, 1392/02/01**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-04-21, 1392/02/01

Registrant information

Name

Aziz Homayouni

Name of organization / entity

Tabriz University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Research Council of Tabriz University of Medical Sciences

Expected recruitment start date

2013-04-09, 1392/01/20

Expected recruitment end date

2013-10-12, 1392/07/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Inulin, Fructooligosaccharide and Poly dextrose fortification on Physico-chemical, Rheological and Organoleptic properties of Clear Apple Juice among students of Tabriz university of medical science for six month

Public title

Physico-chemical, Rheological and Organoleptic properties of Clear Apple Juice prepared with Inulin, Fructooligosaccharide and Poly dextrose in comparison to the conventional Clear Apple Juice

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Not having any diseases (including a cold); Not smoking; exclusion criteria: Having any diseases (including cold); Smoking.

Age

From **20 years** old to **60 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **10**

Randomization (investigator's opinion)

N/A

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 Avenue

City

Tabriz

Postal code

5166614711

Approval date

2013-01-15, 1391/10/26

Ethics committee reference number

55555

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

Healthy people

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Sensory evaluation and compares each of the two types of clear apple juice

Timepoint

Immediately after taking 100 cc of each of the two types of clear apple juice

Method of measurement

Using questionnaires

Secondary outcomes

empty

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

100 cc of Clear Apple Juice made with Inulin, Polydextrose and Fructooligosaccharide

Category

Prevention

2**Description**

100 cc of Normal Clear Apple Juice

Category

Prevention

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

Tabriz University of Medical Science

Full name of responsible person

Doctor Aziz Homayouni Rad

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Web page address**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 Alizadeh

Street address

Golbad Street, Atar Neishaburi Avenue

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

Tabriz University of Medical Sciences

Full name of responsible person

Doctor Aziz Homayouni Rad

Position

Assistant professor of department of food science and technology

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

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Full name of responsible person

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Web page address**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*