

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Jun 2026

Efficacy of zinc supplementation on improvement of weight and height growth of healthy 9-18 year children

Protocol summary

Summary

As an essential micronutrient, zinc has a critical role in human growth in different stages of life. Efficacy of zinc supplementation on improvement of growth of infants and prepubertal children has been evaluated in several studies in Iran and other countries. Little is known, however, about efficacy of zinc on post-pubertal growth of children. In a randomized clinical trial, 9-18 year old healthy referred children to Pediatric Growth Clinic of Shahid Sadoughi Hospital, Yazd, Iran will be enrolled and randomly assigned to two groups to receive daily supplementation of single dose of 5 mg zinc sulfate for 4 months or placebo. The children will be followed up for 4 months and weight gain velocity, height gain velocity, before and four months after intervention serum zinc level and clinical side effects will be evaluated in both groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201305302639N13**

Registration date: **2013-06-07, 1392/03/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-06-07, 1392/03/17

Registrant information

Name

Razieh Fallah

Name of organization / entity

Shahid Sadoughi University of Medical Sciences, Yazd,
Iran

Country

Iran (Islamic Republic of)

Phone

+98 35 3822 4000

Email address

fallah@ssu.ac.ir

Recruitment status

Recruitment complete

Funding source

Private, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

Expected recruitment start date

2011-04-04, 1390/01/15

Expected recruitment end date

2011-11-06, 1390/08/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Efficacy of zinc supplementation on improvement of weight and height growth of healthy 9-18 year children

Public title

Efficacy of zinc supplementation on weight and height growth of healthy 9-18 year children

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria: 1- children aged 9-18 years 2- being healthy 3- having normal serum zinc level (plasma level of 70-158 µg/dL) Exclusion criteria: 1- receiving a zinc combination within the past three months 2- presence of any chronic systemic diseases (endocrine, cardiac, renal, metabolic, malignancy, rheumatologic, etc) 3- presence of acrodermatitis enteropathica 4- presence of mental retardation 5- being underweight based on NHANES III (National Health and Nutrition Examination Survey III)

curves 6- being short stature based on NHANES III (National Health and Nutrition Examination Survey III)
curves 7- having severe malnutrition.

Age

From **9 years** old to **18 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shahid Sadoughi University of Medical Sciences, Yazd,
Iran

Street address

Bahonar Square,Central building of University

City

Yazd

Postal code

Approval date

2011-03-01, 1389/12/10

Ethics committee reference number

174321

Health conditions studied

1

Description of health condition studied

malnutrition

ICD-10 code

K92.9

ICD-10 code description

Disease of digestive system, unspecified

Primary outcomes

1

Description

Weight

Timepoint

two Before, two and four months after starting of the intervention

Method of measurement

children digital weighing scale

2

Description

height

Timepoint

Before , two and four months after starting of the intervention

Method of measurement

stadiometer

3

Description

Serum zinc level

Timepoint

Before and four months after starting of the intervention

Method of measurement

laboratory by atomic absorption spectrometry

Secondary outcomes

1

Description

side effects

Timepoint

During intervention

Method of measurement

Clinical exam and asking from person

Intervention groups

1

Description

daily supplementation of single dose of 5 mg zinc sulfate for four consecutive months

Category

Treatment - Other

2

Description

placebo

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Pediatric Growth Clinic of Shahid Sadoughi Hospital,
Yazd , Iran

Full name of responsible person

Dr.Fatemeh Kaseb

Street address

Shahid Sadoughi Hospital , Ave - Sina Blvd, Shahid
Ghandi Blvd, Yazd, I.R.Iran

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

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Full name of responsible person

Dr.Fatemeh Kaseb

Position

Nutritionist , Assistant Professor

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

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Web page address**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Sadoughi University of Medical Sciences, Yazd, Iran,
Private

Full name of responsible person

Dr.Fatemeh Kaseb

Street address

Emam Hossein Square,Department of Nutrition ,
Paramedical Faculty

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Yazd

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

Yes

Title of funding source

Sadoughi University of Medical Sciences, Yazd, Iran,
Private

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**

Department of Nutrition , Paramedical Faculty, Shahid
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Full name of responsible person

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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