

## Main

Note: This record shows only 22 elements of the WHO Trial Registration Data Set. To view changes that have been made to the source record, or for additional information about this trial, click on the URL below to go to the source record in the primary register.

**Register:** ChiCTR  
**Last refreshed on:** 18 April 2017  
**Main ID:** ChiCTR-IOR-14005531  
**Date of registration:** 2014-11-20  
**Prospective Registration:** Yes  
**Primary sponsor:** TaiShan Medical University  
**Public title:** A clinical study of the effect of molecular hydrogen on glucose metabolism and insulin resistance in patients with type 2 diabetes  
**Scientific title:** A clinical study of the effect of molecular hydrogen on glucose metabolism and insulin resistance in patients with type 2 diabetes  
**Date of first enrolment:** 2014-12-01  
**Target sample size:** Placebo Group:50;Hydrogen Group:50;  
**Recruitment status:** Recruiting  
**URL:** <http://www.chictr.org.cn/showproj.aspx?proj=9905>  
**Study type:** Interventional study  
**Study design:** Randomized parallel controlled trial  
**Phase:** Other

## Countries of recruitment

China

## Contacts

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## Key inclusion &amp; exclusion criteria

Inclusion criteria: 1) Mean hemoglobin A1c (HbA1c) level more than at least 6.5%; 2) Fasting plasma glucose level more than at least 7.0mmol/l; 3) Plasma glucose level 2hr after oral glucose tolerance test more than at least 11.1mmol/l.

Exclusion criteria: (1) known duration of diabetes longer than 3 years; (2) mean hemoglobin A1c (HbA1c) level in the past 6 months more than 6.9%; (3) plasma creatinine concentration more than 106 umol/L; (4) chronic liver disease or a clinical history and/or signs of cardiovascular disease, cerebrovascular disease, or peripheral arterial disease; (5) heavy smoking and drinking; and (6) use of any dietary and/or antioxidant supplement in the 3 months before the start of the study.

Age minimum: 45

Age maximum: 60

Gender: Both

## Health Condition(s) or Problem(s) studied

Type 2 diabetes

## Intervention(s)

Placebo Group:Drinking placebo water;Hydrogen Group:Drinking hydrogen water;

## Primary Outcome(s)

fasting plasma glucose;postprandial plasma glucose;plasma insulin;plasma free fatty acid;HbA1c;glycated albumin;plasma total cholesterol;plasma high-density lipoprotein cholesterol;plasma low-density lipoprotein cholesterol;triglyceride;leptin;adiponectin;resistin;high sensitive C reactive protein;malondialdehyde;

## Secondary Outcome(s)

## Secondary ID(s)

## Source(s) of Monetary Support

The science and technology development programme of Shandong Province (2014GSF118081)

## Secondary Sponsor(s)

## Ethics review

## Results

## Results available:

**Date Posted:****Date Completed:****URL:**

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