Meta-analysis of body weight changes after metformin intake in the elderly

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Citation

Review question
Does metformin induce weight loss in the elderly? How does metformin intake influence body mass index after the age of 60 years?

Searches
Literature searches are conducted through EMBASE, PubMed, and Cochrane Library databases. Human studies published in English will be included.

Types of study to be included
At the time of registration there are no restrictions.

Condition or domain being studied
Body mass index and body weight changes.

Participants/population
Elderly people (older than 60 years old) taking metformin for at least 12 weeks.

Intervention(s), exposure(s)
We include data from studies concerning the effects of an at least 12 weeks long metformin intake on the body weight or BMI levels of elderly (>60 years of age) people.

Comparator(s)/control
Placebo-control.

Context

Primary outcome(s)
Change in body weight or body mass index.

Secondary outcome(s)
None.

Data extraction (selection and coding)

Risk of bias (quality) assessment
To assess the presence of publication bias, we use Egger’s test to detect asymmetry in the funnel plot. A significant test result (p < 0.1) indicates the existence of bias.

Strategy for data synthesis
Forest plots will be used for presenting results together with a narrative synthesis of the studies. If not provided, data will be calculated or estimated where appropriate. Heterogeneity will be calculated using the I-
squared statistic.

**Analysis of subgroups or subsets**

If the necessary data are available, subgroup analyses will be done.

**Contact details for further information**

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**Organisational affiliation of the review**

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**Anticipated or actual start date**

15 November 2016

**Anticipated completion date**

31 August 2018

**Funding sources/sponsors**

Medical School, University of Pécs, Hungary
PTE-AOK-KA-2016/14 and PTE-AOK-KA-2017

**Conflicts of interest**

None known

**Language**

English

**Country**

Hungary

**Stage of review**

Review_Completed_not_published

**Subject index terms status**

Subject indexing assigned by CRD
Subject index terms
Aged; Humans; Hypoglycemic Agents; Metformin; Weight Gain

Date of registration in PROSPERO
13 January 2017

Date of publication of this version
18 July 2018

Details of any existing review of the same topic by the same authors

Stage of review at time of this submission

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<th>Started</th>
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<td>Piloting of the study selection process</td>
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<td>Formal screening of search results against eligibility criteria</td>
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<td>Data extraction</td>
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<td>Risk of bias (quality) assessment</td>
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<td>Yes</td>
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<td>Data analysis</td>
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Versions

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