

Metformin: Mechanisms in Human Obesity and Weight Loss

Yerevanian A, Soukas AA. *Curr Obes Rep.* 2019 Jun; 8(2):156-164.

- The largest study to show the weight benefits of metformin is the Diabetes Prevention Study (DPP).
- (AACE/ACE)* guidelines on obesity management recommend the use of metformin in obese patients with evidence of pre-diabetes or insulin intolerance that does not respond to lifestyle medications or other anti-obesity medications.
- Large cohort studies have shown weight loss benefits associated with metformin therapy. Metabolic consequences were traditionally thought to underlie this effect, including reduction in hepatic gluconeogenesis and reduction in insulin production.
- Emerging evidence suggests that metformin-associated weight loss is due to modulation of hypothalamic appetite regulatory centers, alteration in the gut microbiome, and reversal of consequences of aging.

Multiple mechanisms underlie the weight loss-inducing & health-promoting effects of metformin & will continue to serve as a mainstay treatment in the management of T2D & confer multiple metabolic effects beyond glycemic control.

(AACE) : American Association of Clinical Endocrinologists;*

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