

# Metformin

Metformin is a medication designed to treat diabetes. It works by modulating sugar absorption and improving the sensitivity of the pancreas to insulin (a hormone involved in metabolism of sugar). It has also been studied to prevent weight gain while taking psychiatric medications; it may work in this case by improving metabolism and may have additional benefits of preventing diabetes. It is important to understand that metformin may not cause you to lose weight; rather it may prevent significant weight gain.

Metformin should be used as part of a weight-loss program, including moderate exercise and a reduced-calorie diet. Ask your doctor about weight-loss ideas that would be good for you.

Metformin may have anti-aging effects. According to *Scientific American*, “patients with type 2 diabetes who took metformin lived, on average, 15 percent longer than a group of healthy people who did not suffer from the metabolic disorder but were similar in nearly all other respects. Scientists speculate that metformin interferes with a normal aging process, called glycation, in which glucose combines with proteins and other important molecules, gumming up their normal workings. The metformin finding is particularly striking because people who have diabetes, even if it is well controlled, typically have somewhat shorter life spans than their healthy counterparts.”

## How To Take it

- You should take metformin with a meal.
- If you miss a dose... ask yourself if you are closer to the dose you missed – if so, take the missed dose and continue on your regular schedule. If you are closer to the next scheduled dose, wait and take that one. Do not double-up on doses.

## Side Effects

*Common:* diarrhea, nausea, abdominal cramping.

*Serious but rare:* Low blood sugar (can cause fainting; eat sweets or fruit juice and call your doctor if this occurs). Lactic acidosis (an imbalance of body chemistry, can cause flu-like feelings, muscle pain and cold-feelings; it is treatable and reversible; risk = about 3 in 100,000 people).

## Drug Interactions

A list of potential interactions is at [www.mayoclinic.com](http://www.mayoclinic.com) (click *Health Information*, then *Drugs and Supplements*). Metformin is not metabolized by the liver. However, it may be dangerous in people with kidney or liver disease.

–Updated 2/14/2015 by Chris Aiken, MD