

Metformin Dosage

There have been no human studies to identify the optimal dose of metformin that is needed to duplicate the beneficial gene expression effects that are described in the June 2003 issue of *Life Extension* magazine.

For people who want to derive the many proven health benefits of metformin, it might be prudent to follow the dosage schedule used by Type II diabetics. According to the *Physician's Desk Reference*, the starting dose should be 500 mg of metformin twice a day. (An alternative option is 850 mg of metformin once a day).

After one week, increase the dose of metformin to 1000 mg as the first dose of the day and 500 mg as the second dose. After another week, increase to 1000 mg of metformin two times a day. The maximum safe dose described in the *Physician's Desk Reference* is 2550 mg a day (which should be taken as 850 mg three times a day).

According to the *Physician's Desk Reference*, clinically significant responses in Type II diabetics are not seen at doses below 1500 mg a day of metformin. Anti-aging doctors, on the other hand, have recommended doses as low as 500 mg twice a day to healthy non-diabetics who are seeking to obtain metformin's other proven benefits such as enhancing insulin sensitivity and reducing excess levels of insulin, glucose, cholesterol and triglycerides in the blood.

It could be the dosage range is highly individualistic in healthy people, meaning some may benefit from 500 mg twice a day, while others may need 1000 mg twice a day for optimal effects. Blood tests to ascertain if the dose of metformin you are taking is improving glucose/insulin metabolism would be:

1. Hemoglobin A1c
2. Fasting insulin
3. CBC/Chemistry panel that includes glucose, cholesterol triglycerides and indicators of liver and kidney function

A **hemoglobin A1c** test measures the average amount of sugar in your blood over the last 3 months. Metformin helps lower hemoglobin A1C to safe low levels (below 5-6%).

Aging and overweight people often suffer from metabolic disorders that manifest in the blood as excess serum insulin, glucose, cholesterol and triglycerides. Metformin often helps correct all of these metabolic disturbances that can lead to the development of numerous degenerative diseases. The **CBC/Chemistry** test provides readings on cholesterol, glucose and triglycerides and can also warn you of underlying liver-kidney impairment that would make you ineligible for metformin. The **fasting insulin** test indicates if metformin is adequately lowering levels of serum insulin to a safer range of below 5 (micro IU/ML).

To review complete information on metformin, including information about who should NOT take it, log on to www.glucophage.com

Check back at the www.lef.org web site for dosage recommendation updates on metformin.

Precaution: There was a drug that was very similar to metformin, called phenformin, which was removed from the market by the FDA in 1976. Some physicians gave this drug to patients with kidney or liver problems, or congestive heart failure. Some of these patients died due to lactic acidosis build-up because a healthy kidney and liver were needed to metabolize the drug. It is not recommended that people who have liver or kidney problems, or congestive heart failure, use metformin due to the drug's similarities to phenformin. Those who drink excessive amounts of alcohol should not take metformin.

not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.