

Starting treatment early doubles chance of success for people with diabetes

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The sooner people with diabetes start taking metformin, the longer the drug remains effective, according to a Kaiser Permanente study published in the March issue of *Diabetes Care*, a journal of the American Diabetes Association.

The study found that [metformin](#), an inexpensive, generic drug that helps patients prevent dangerously high blood sugar levels, worked nearly twice as long for people who began taking it within three months of their diabetes diagnosis. This is the first study to compare metformin failure rates in a real-world, clinical practice setting. Other studies compared failure rates of metformin only in clinical trials.

Metformin is recommended as a first-line agent in the treatment of type 2 diabetes, but in most patients it eventually stops working, forcing them to take additional medications to control their blood sugar. Each additional drug adds extra costs and the possibility of more side effects including weight gain, so this study is welcome news for newly diagnosed patients, researchers said.

"This is an important finding for the 30 million people world-wide who are diagnosed with [type 2 diabetes](#) every year. The sooner they start taking metformin, the better and longer it seems to work," said the study's lead author Jonathan B. Brown, PhD, an investigator with the Kaiser Permanente Center for Health Research in Portland, Ore. "This study suggests that to gain full benefit from metformin, patients should start taking it as soon as they find out they have diabetes."

Researchers used [electronic health records](#) to follow nearly 1,800 people with diabetes in Kaiser Permanente's health plan in Washington and Oregon for up to five years. Metformin failed at a rate of only 12 percent a year for the patients who began taking it within three months of diagnosis. That compares to a failure rate of 21.4 percent per year for patients who started taking metformin one to two years after diagnosis, and 21.9 percent per year for those who didn't start taking the drug until three years after they were diagnosed.

"We believe that starting the drug early preserves the body's own ability to control blood sugar, which in turn prevents the long-term complications of diabetes like heart disease, kidney failure, and blindness," said study co-author Gregory A. Nichols, PhD, an investigator with the Kaiser Permanente Center for Health Research. "The American [Diabetes](#) Association recommends that patients start taking metformin and make lifestyle changes as soon as they are diagnosed. This study provides more evidence to back up that recommendation."

In the study, patients were considered to have failed metformin when their hemoglobin A1C - a test that monitors glucose control - went above 7.5 percent or when they started taking a second anti-hyperglycemic agent. Only patients who initially controlled blood sugar (to less than 7 percent on the A1C test) with metformin were included in the study.

To reduce the possibility that factors other than delay in starting metformin influenced the results of the study, researchers controlled for age, gender, and how well [blood sugar](#) was controlled prior to treatment. After controlling for these factors, an even stronger relationship emerged between the time a patient started on the drug, and the amount of time it remained effective. Still, the authors caution that other unmeasured factors could have influenced the results.

More information: Click here to read the full study:
[care.diabetesjournals.org/cont ... 9-1749.full.pdf+html](https://care.diabetesjournals.org/cont...9-1749.full.pdf+html)

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