

Group of anti-diabetic drugs can significantly lower cancer risk in women with type 2 diabetes

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A Cleveland Clinic-led study shows that a specific type of diabetes drug can decrease the risk of cancer in female patients with type 2 diabetes by up to 32 percent.

People with type 2 diabetes have a higher rate of [cancer development](#) and [recurrence](#) compared to the [general population](#). This study – published online today by the journal *Diabetes, Obesity and Metabolism* – shows that widely prescribed anti-diabetes drugs can be linked to either an increased or decreased risk of cancer, depending on the type of medication prescribed.

A team of researchers led by Sangeeta Kashyap, M.D., an [endocrinologist](#) and associate professor of medicine at Cleveland Clinic's Endocrinology & Metabolism Institute, compared two groups of drugs commonly used to treat type 2 diabetes – insulin sensitizers and insulin secretagogues. Insulin sensitizers lower blood sugar and insulin levels in the body by increasing the muscle, fat and liver's response to insulin. Insulin secretagogues lower blood sugar by stimulating pancreatic beta cells to make more insulin.

"What this study shows us is that using insulin secretagogues to increase insulin production correlates with an increased cancer risk in women with type 2 diabetes," said Kashyap. "By contrast, insulin sensitizers cut insulin levels and can decrease cancer growth. So, clearly, when

prescribing anti-diabetic medications, it's important to consider the impact a drug has on fueling cancer growth."

In a retrospective analysis, researchers cross-indexed the electronic health record-based Cleveland Clinic Diabetes Registry (25,613 patients) with the histology-based tumor registry (48,051 cancer occurrences) over an 8-year period (1998–2006). More than 890 incident cancer cases were identified. The two most common cancers were prostate and breast, accounting for more than 25 percent of total cancer cases.

Study results show that the use of insulin sensitizers in [female patients](#) with type 2 diabetes was associated with a 21 percent decreased cancer risk compared with insulin secretagogues. Furthermore, the use of a specific insulin sensitizer, thiazolidinedione, was associated with a 32 percent decreased cancer risk in female patients compared with sulphonylurea, an insulin secretagogue. Results showed no significant difference in men.

The findings in this study contribute to existing research in the field on diabetic patients and their increased cancer risk. Further research is needed to examine the impact of oral diabetes therapy on cancer risk and development.

Provided by Cleveland Clinic

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