

Type 2 diabetes linked to increased blood cancer risk

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Patients with type 2 diabetes have a 20 percent increased risk of developing blood cancers, such as non-Hodgkin lymphoma, leukemia and myeloma, according to a new meta-analysis led by researchers at The Miriam Hospital. The findings, recently published in the journal *Blood*, the journal of the American Society of Hematology, add to the growing evidence base linking diabetes and certain types of cancer.

"I think when most people think about diabetes-related illnesses, they think of [heart disease](#) or [kidney failure](#), but not necessarily cancer," said lead author Jorge Castillo, M.D., a hematologist/oncologist with The Miriam Hospital. "But when you consider that more than 19 million Americans have been diagnosed with diabetes – not to mention the millions more who are either undiagnosed or will be diagnosed in the future – a 20 percent increased risk of blood cancer is quite significant."

While diabetes has been previously associated with other [types of cancer](#), such as liver and pancreatic cancer, there have been few connections to blood cancers. Researchers are still unclear what causes the vast majority of these malignancies, which include cancers of the blood, bone marrow, and lymph nodes and affect more than 100,000 Americans each year.

Castillo and colleagues analyzed 26 previously published research articles on the association between [type 2 diabetes](#) – the most common form of the disease – and the incidence of [lymphoma](#), leukemia and myeloma. The meta-analysis included more than 17,000 cases of type 2 diabetes and blood cancer worldwide.

They concluded patients with type 2 diabetes have increased odds of developing leukemia, myeloma and non-Hodgkin lymphoma, as well as a subtype of non-Hodgkin lymphoma known as peripheral T-cell lymphoma. They did not find any associations with Hodgkin lymphoma.

Interestingly, researchers also say the odds of lymphoma, leukemia and myeloma appear to differ depending on the geographic region of the original report. For example, the odds of non-Hodgkin lymphoma were higher in Asia and Europe, while there was an increased leukemia risk in the United States and Asia.

Although the study did not identify a cause for any of these associations, the findings suggest type 2 diabetes could be associated with approximately five percent of all incidents of leukemia, [myeloma](#) and non-Hodgkin lymphoma.

"It's important to remember that type 2 diabetes can, to some degree, be prevented and controlled through lifestyle modification, such as diet and exercise," Castillo said. "So by preventing the onset of type 2 diabetes, we could also prevent [blood cancer](#)."

The researchers say additional studies are needed to explain the potential relationship between type 2 diabetes and blood cancers. In particular, Castillo believes future research should focus on the role of behavioral factors like obesity, physical activity and smoking, which have been linked to both diabetes and cancer.

Provided by Lifespan

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