

## Metformin and Reduced Blood Cancer Risk



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Metformin, a widely used diabetic medication, recognised for its effectiveness in lowering glucose levels, has shown promise in preventing blood cancer, according to recent research. Beyond its primary use in diabetes management, metformin has been explored for its potential benefits in treating conditions such as gum disease, muscle atrophy, long COVID, and promoting healthy ageing.

The unexpected potential of metformin in cancer prevention was highlighted when researchers identified a correlation between its use and a reduced risk of myeloproliferative neoplasms (MPNs) – a rare type of blood cancer that can progress to acute leukaemia. MPNs occur when the body overproduces red blood cells, white blood cells, or platelets, leading to serious complications like bleeding disorders, stroke, heart attack, and organ damage.

According to the study researchers, the anti-inflammatory properties of metformin piqued their interest, which are particularly relevant given the inflammatory nature of MPNs. This study is the first to explore the link between metformin use and MPN risk.

Using data from Danish health registries, the researchers compared 3,816 MPN cases with more than 19,000 controls without the condition. They found that slightly over 8% of the control group had used metformin, compared to 7% of those diagnosed with MPN. Among those who used metformin, 2% of the control group had taken it for over five years, while only 1.1% of MPN patients had used it long-term.

Study findings revealed a dose-response relationship, with a stronger association observed for five years or longer. Even after adjusting for potential factors that could influence the results, metformin demonstrated a protective effect across all subtypes of MPNs, notably in polycythaemia vera (PV) and essential thrombocythaemia (ET).

These findings suggest a significant association between metformin use and reduced odds of developing MPNs, highlighting its potential role in cancer prevention. However, the study researchers conclude that causality cannot be definitively established due to the study's retrospective design.

Source: [American Society of Hematology](#)

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