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INSULIN-RELATED PROTEINS PREDICT RISK OF DEATH IN PEOPLE WITH COLORECTAL CANCER TREATED WITH SURGERY

Findings May Explain Link Between Healthy Lifestyle Choices and Outcome

A new study has shown that among people who were treated surgically for early-stage colorectal cancer, blood levels of two insulin-related proteins measured before diagnosis predicted the risk of subsequent death. Researchers found that patients with high levels of one protein had a more than 50 percent reduced risk of death, while those with high levels of a second protein had double the risk of overall death.

Researchers examined this relationship in 373 people who were later found to have earlier stage colorectal cancer and treated surgically between 1991 and 2004.

They found that those with the highest levels of a protein called IGFBP-1 had a 56 percent reduction in the risk of death overall and a 57 percent reduction in the risk of colorectal cancer death specifically. Researchers suspect that this protein may exert a protective effect in the body, by blocking growth factors that contribute to colon cancer cell growth.

Conversely, patients with high levels of a second protein, C-peptide had twice the risk of overall death, though not from colorectal cancer specifically.

What This Means for Patients

Certain lifestyle factors – such as obesity, physical inactivity and unhealthy diet – are known to promote high levels of insulin, which may bind to specific insulin receptors on a cancer cell's surface and fuel the growth of colon cancer. High levels of insulin are associated with increased C-peptide levels and depressed IGFBP-1.

Although these findings require confirmation in additional studies, they underscore the importance of exercising regularly, achieving and maintaining a healthy body weight, and adopting a healthy diet – both for people with colorectal cancer and people who are at risk. All of these habits reduce insulin levels, which may have an important impact on a person's risk of colorectal cancer recurrence and death.

Helpful Links:

- [Cancer.Net Guide to Colorectal Cancer](#)
- [Cancer.Net Feature: Healthy Living After Cancer](#)
- [Physical Activity: Suggestions and Tips](#)
- [Cancer.Net Feature: Physical Activity and Cancer](#)