

High levels of 'good' cholesterol may cut bowel cancer risk

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High levels of "good" (high density lipoprotein) HDL cholesterol seem to cut the risk of bowel cancer, suggests research published online in *Gut*.

The association is independent of other potentially cancer-inducing markers of inflammation in the blood.

The researchers base their findings on participants in the European Prospective Investigation into Cancer and Nutrition (EPIC) study. This is tracking the long term impact of diet on the development of cancer in more than half a million people in 10 European countries, including the UK.

Some 1,200 people who developed bowel and rectal cancers - 779 bowel and 459 <u>rectal cancer</u> - after agreeing to take part in EPIC were matched with another 1,200 participants of the same age, gender, and nationality.

Blood samples taken when they joined the study, and the dietary questionnaires these participants had completed, were compared to see if there were any discernible differences between the two groups.

The analysis showed that those who had the highest levels of HDL cholesterol, and another blood fat, apolipoprotein A, or apoA - a component of HDL cholesterol - had the lowest risk of developing <u>bowel cancer</u>.



Each rise of 16.6 mg/dl in HDL and of 32 mg/dl in apoA reduced the risk of bowel cancer by 22% and 18%, respectively, after taking account of diet, lifestyle, and weight.

But HDL and apoA levels had no impact on the risk of rectal cancer.

After excluding those who had only been monitored for two years, as they may have already been undergoing cancerous changes when they joined the study, only levels of HDL were associated with a reduction in bowel <u>cancer risk</u>.

The association remained intact, irrespective of other indicators of inflammation, <u>insulin resistance</u>, and <u>oxygen free radicals</u> levels, all of which are associated with the development of cancer.

The authors explain that low HDL levels have been linked to higher levels of proteins involved in inflammation, while higher levels of proteins that dampen down the inflammatory response have also been linked to high HDL levels.

The pro inflammatory proteins boost cell growth and proliferation while curbing cell death, so HDL may alter the inflammatory process in some way, they suggest.

Provided by British Medical Journal

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