

Does aspirin help prevent colon cancer? It may depend on your genes

By ACSH Staff — March 18, 2015



It is generally accepted that the chronic use of aspirin and

some other non-steroidal anti-inflammatory drugs (NSAIDs) reduce the risk of colorectal cancer (CRC). A new study shows that this beneficial effect may not apply to everyone.

Rapid advances in gene sequencing are starting to refine treatments for a variety of diseases (personalized medicine). Although in its infancy, this approach may eventually be useful in selecting appropriate drugs for cancer, depression, and other conditions.

New research shows that one's genetic profile may play a part in determining who is more likely to benefit from NSAID chemoprevention of CRC, and whose chances are lower.

In the [study](#) [1], which appears in the March 17th JAMA, Hongmei Nan, MD, PhD, from the Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis and coworkers from multiple research centers, examined genetic markers which should not only shed light on the mechanism by which NSAIDs prevent cancer, but give more information as to whom might be helped and those who are less likely to be.

Since even low dose aspirin can cause side effects, most notably bleeding, determining via genetic testing who might be more vs. less likely to benefit from NSAID chemoprevention of CRC will likely lead to fewer serious adverse events from taking these drugs.

People that had the more common rs16973225-AA gene something that rolls right off your tongue were found to benefit from NSAID therapy, but those with less common versions of this gene did not.

ACSH's Dr. Josh Bloom says, This is clearly not something that will be included in a routine blood test anytime soon. It just represents another case of the trend toward personalized medicine, which is just getting started. I expect that treatments for diseases based on genetic makeup will eventually revolutionize medicine. But this is just the start.

ACSH s Dr. Gil Ross added this: Aspirin chemoprevention of vascular disease is a well-known beneficial use for this NSAID. But like prevention of CRC, there are risks to counter the benefits not everyone should be on it. Individualized decision-making is needed, and we don t have much of a handle yet on the genetics of aspirin for heart protection.

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