

Genetic Mutation Increases Esophageal Cancer Risk for People With Gastroesophageal Reflux Disease (GERD)

The study: Researchers collected DNA samples from 309 people being treated for esophageal cancer and 275 people who did not have cancer to identify genes or combinations of genes that may be associated with an increased risk of esophageal cancer. In addition, all people in the study were evaluated for a history of gastroesophageal reflux disease (GERD). GERD is a condition in which stomach acid rises up into the esophagus. It is a risk factor for esophageal cancer because the stomach acid can damage the lining of the esophagus.

The results: Researchers found that a genetic mutation (change) to the epidermal growth factor (*EGF*) gene is associated with an increased risk of esophageal cancer for patients with GERD. People with one type of genetic mutation, called G/G, who had symptoms of GERD more than once a month were 10 times more likely to develop esophageal cancer than those who had the unchanged gene, called A/A, and did not have symptoms of GERD. The risk of esophageal cancer increased for people with the genetic mutation who had symptoms of GERD more often or for more than 15 years. People who had a genetic mutation falling between the G/G mutation and the unchanged A/A gene, called A/G, had an increased risk of esophageal cancer, although it was not as high as that for people with the G/G mutation.

What this means for patients

“These findings are the first step in developing a test to identify which patients have the highest risk of esophageal cancer and would have the greatest benefit from more aggressive screening,” said lead author Winson Y. Cheung, MD, Clinical Research Fellow with the University of Toronto and the Harvard School of Public Health. “And because GERD is a common condition, the ability to identify patients with a high risk of cancer could lead to improved screening, earlier diagnosis, and a better chance of survival.” Screening for esophageal cancer is not recommended for all people with GERD because it is invasive and costly. If you have GERD, talk with your doctor about your risk of esophageal cancer.

What to Ask Your Doctor

- What is my risk for esophageal cancer?
- What are the symptoms of GERD?
- If I have GERD, what can be done to help reduce my risk of esophageal cancer?

For More Information

[Cancer.Net Guide to Esophageal Cancer](#) [1]

[Genetics](#) [2]

Links:

[1] <http://www.cancer.net/patient/Cancer+Types/Esophageal+Cancer>

[2] <http://www.cancer.net/patient/All+About+Cancer/Genetics>