

Scared You May Have Cancer? This Test Can Forewarn You

Researchers from Northwestern and Harvard Universities have identified a new way to predict who will develop cancer years in advance of current diagnostic techniques.

The approach is based on studies that identified specific changes in blood “telomeres”—strands of DNA on the ends of chromosomes that scientists liken to plastic caps on the ends of shoelaces—that increase the odds of cancer development, *Medical News Today* reports.

The study, published in the journal *EBioMedicine*, is the first to show that blood telomeres age faster and then stop aging for a few years in the period leading up to a cancer diagnosis.

“Understanding this pattern of telomere growth may mean it can be a predictive biomarker for cancer,” said lead researcher Lifang Hou, an associate professor of cancer epidemiology and prevention at Northwestern University Feinberg School of Medicine.

Telomeres gradually shorten as we age, which is why scientists consider them to be a marker of biological age. But the new research suggests they may also hold keys to cancer.

For the new study, the researchers measured telomere length several times over a 13-year period in 792 people—135 of whom eventually developed leukemia, and cancers of the prostate, skin and lungs. The telomeres of the cancer patients aged much faster—shortening more rapidly—in the first few years, than the others.

The researchers said the findings could lead to a blood test for cancer that could lead to earlier treatments, when they

can be most effective at containing or eliminating cancer.

“Because we saw a strong relationship in the pattern across a wide variety of cancers, with the right testing these procedures could be used to eventually diagnose a wide variety of cancers,” Hou said.

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