

Women's height linked to cancer risk

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The taller a postmenopausal woman is, the greater her risk for developing cancer, according to a study published in *Cancer Epidemiology, Biomarkers & Prevention*, a journal of the American Association for Cancer Research.

Height was linked to cancers of the breast, colon, endometrium, kidney, ovary, rectum, and thyroid, as well as to multiple myeloma and melanoma, and these associations did not change even after adjusting for factors known to influence these cancers, in this study of 20,928 postmenopausal women, identified from a large cohort of 144,701 women recruited to the Women's Health Initiative (WHI).

"We were surprised at the number of cancer sites that were positively associated with [height](#). In this data set, more cancers are associated with height than were associated with body mass index [BMI]," said Geoffrey Kabat, Ph.D., senior epidemiologist in the Department of Epidemiology and Population Health at Albert Einstein College of Medicine of Yeshiva University in New York, N.Y. "Ultimately, cancer is a result of processes having to do with growth, so it makes sense that hormones or other growth factors that influence height may also influence cancer risk."

Some genetic variations associated with height are also linked to cancer risk, and more studies are needed to better understand how these height-related genetic variations predispose some men and women to cancer, according to the authors.

Kabat and colleagues used data from the WHI, a large, multicenter study that recruited postmenopausal women between the ages 50 and 79, between 1993 and 1998. At study entry, the women answered questions about physical activity, and their height and weight were measured.

The researchers identified 20,928 women who had been diagnosed with one or more invasive cancers during the follow-up of 12 years. To study the effect of height, they accounted for many factors influencing cancers, including age, weight, education, smoking habits, alcohol consumption, and hormone therapy.

They found that for every 10-centimeter (3.94 inches) increase in height, there was a 13 percent increase in risk of developing any cancer. Among specific cancers, there was a 13 percent to 17 percent increase in the risk of getting melanoma and cancers of the breast, ovary, endometrium, and colon. There was a 23 percent to 29 percent increase in the risk of developing cancers of the kidney, rectum, thyroid, and blood.

Of the 19 cancers studied, none showed a negative association with height.

Because the ability to screen for certain cancers could have influenced the results, the researchers added the participants' mammography, Pap, and colorectal cancer screening histories to the analyses and found the results remained unchanged.

"Although it is not a modifiable risk factor [A modifiable risk factor can be changed, controlled, or treated, e.g., diet, lifestyle. Height is a non-modifiable risk factor because it cannot be changed], the association of height with a number of cancer sites suggests that exposures in early life, including nutrition, play a role in influencing a person's risk of [cancer](#)," said Kabat. "There is currently a great deal of interest in early-life events that influence health in adulthood. Our study fits with this area."

Provided by American Association for Cancer Research

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