Study reveals heritability of several types of cancer

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A new <u>study published in JAMA</u> studied the effect of genetics — heredity — on overall cancer incidence, as well as for specific cancer types, and found a substantial genetic contribution to cancer's toll.

The *Nordic Twin Study of Cancer* collaboration collected health data on cancer incidence among over 200,000 twins from Scandinavia (Denmark, Norway, Finland and Sweden), with a mean follow-up of 32 years, beginning in 1943. The study subjects included 80,000-plus monozygotic (identical) and 123,000-plus dizygotic (fraternal but same sex) twin individuals, among whom 27,000-plus cancers were diagnosed, a cumulative incidence of 32 percent. Thirty-eight percent of the identical twins and 26 percent of the fraternal twins had the same type of cancer.

The international multicenter study group was led by Lorelei Mucci, Sc.D., MPH, of the Harvard T.H.Chan School of Public Health, with co-authors based in Iceland, Sweden, Norway, Denmark, Finland, and Singapore. The article was entitled "Familial Risk and Heritability of Cancer Among Twins in Nordic Countries." They found that there was a 33 percent increased risk of cancer attributable to genetic factors, with the strongest links found to melanoma (58 percent), prostate (57 percent), non-melanoma skin cancers (43 percent), ovary (39 percent), kidney (38 percent), breast (31 percent), and uterus (27 percent).

There was little heritable link found for lung cancer, nor for colorectal, cervical or oropharyngeal cancers (the former is highly related to smoking, while the latter two have been shown to be related to HPV infection).

Read full, original post: Genetic Link Found for Several Common Cancers