

Sun exposure and sun-sensitive skin type decreased risk for pancreatic cancer

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High levels of ultraviolet radiation at an individual's birth location, sun-sensitive skin type and a history of skin cancer each decreased risk for pancreatic cancer, according to study results presented at the American Association for Cancer Research's Pancreatic Cancer: Progress and Challenges conference, held here June 18-21.

Rachel Neale, Ph.D., principal investigator at Queensland Institute of Medical Research in Queensland, Australia, presented the results of a population-based, case-control study that adds to the already conflicting data about [sun exposure](#), vitamin D gained from sun exposure and cancer risk.

"Several ecological studies, including one conducted in Australia, have suggested that people living in areas with high sun exposure have lower risk for [pancreatic cancer](#)," Neale said. "However, some studies of circulating vitamin D indicate that people with high vitamin D are at increased risk, and one study of vitamin D intake supports this increased risk."

The results of this study support the existing [ecological data](#) which indicate that sun exposure has a protective effect against pancreatic cancer.

Neale and colleagues recruited 714 people in Queensland, Australia, between 2007 and 2011. They were matched by age and sex to 709 [control participants](#). All participants were interviewed about socio-

demographic information and medical history. In addition, they were asked about the location of their birth, skin cancer history and skin type, defined by skin color, tanning ability and propensity to sunburn.

Using NASA's Total Ozone Mapping Spectrometer, the researchers assigned a level of [ultraviolet radiation](#) to each birth location and then split them into thirds based on how much radiation was present.

Participants born in areas with the highest levels of ultraviolet radiation had a 24 percent lower risk for pancreatic cancer compared with those born in areas of low ultraviolet radiation.

In addition, although all skin types had some significant association with pancreatic [cancer risk](#), those classified as having the most sun-sensitive skin had a 49 percent decreased risk for pancreatic cancer compared with those classified as having the least sun-sensitive skin. Finally, participants with a history of [skin cancer](#) or other sun-related skin lesions had a 40 percent lower risk for pancreatic cancer than those who had not reported skin lesions.

"There is increasing interest in the role of sun exposure, which has been largely attributed to the effect of vitamin D, on cancer incidence and mortality," Neale explained. "It is important that we understand the risks and benefits of sun exposure because it has implications for public health messages about sun exposure, and possibly about policy related to vitamin D supplementation or food fortification."

Moving forward, Neale recommended that researchers conduct large cohort studies that measure sun exposure comprehensively, and serum vitamin D.

"There are several trials of vitamin D that are either under way or planned, and pooling data from these might give some clue about

vitamin D and pancreatic cancer," Neale said.

Provided by American Association for Cancer Research

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