

# Tanning may be associated with moles in very light-skinned children

September 21 2009

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Very-light-skinned children without red hair who tan appear to develop more nevi (birthmarks, moles or other colored spots on the skin) than children who do not tan, according to a report in the September issue of *Archives of Dermatology*.

Cutaneous melanoma ranks sixth in incidence of all cancers among men and women in the United States, according to background information in the article. The presence of numerous benign or atypical nevi are the strongest risk factors for melanoma development. "The number and size of nevi are often used for determining the risk of developing melanoma," the authors write. "The risk factors for melanoma and factors associated with higher nevus counts are the same: lighter hair color, [eye color](#) and [skin color](#); greater UV exposure; higher frequency and severity of sunburns; male sex; and freckling." Although previous studies on tanning exposure and nevus development in the white population have been conducted, none have investigated the relationship between tanning and nevi in those with the lightest skin.

Jenny Aalborg, M.P.H., of the Colorado School of Public Health, University of Colorado, Denver, and colleagues conducted skin exams in 2004, 2005 and 2006 to determine full-body counts of nevi in 131 very-light-skinned white children without red hair and 444 darker-skinned white children without red hair born in Colorado in 1998. Participants' skin color, tanning measurements and hair and eye color were also noted. Redheads were excluded because numerous previous studies suggest that individuals with red hair report fewer nevi than all other hair colors in

the white population.

"Among very-light-skinned white children, geometric mean [average] numbers of nevi for minimally tanned children were 14.8 at age 6 years; 18.8 at 7 years and 22.3 at age 8 years. Mean numbers of nevi for tanned children were 21.2 at age 6 years; 27.9 at age 7 years and 31.9 at age 8 years," the authors write. "Differences in nevus counts between untanned and tanned children were statistically significant at all ages. The relationship between tanning and number of nevi was independent of the child's hair and eye color, parent-reported sun exposure and skin phototype." There was no correlation between tanning and nevi among darker-skinned white children.

"In conclusion, UV tanning promotes nevus development in non-redhead children with the lightest skin pigmentation," the authors write.

"Whether nevus development is directly in the pathway for melanoma development or a surrogate marker for UV-induced skin damage and/or genetic susceptibility to melanoma, our results suggest that [tanning](#) avoidance should be considered as a measure for the reduction of [melanoma](#) risk in this population."

More information: Arch Dermatol. 2009;169[9]:989-996.

Source: JAMA and Archives Journals ([news](#) : [web](#))

Citation: Tanning may be associated with moles in very light-skinned children (2009, September 21) retrieved 24 April 2024 from <https://medicalxpress.com/news/2009-09-tanning-moles-light-skinned-children.html>

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