

Distance Running Is Tied to Skin Cancer Risk – Dougie Freese, what's up with that?

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In Study, Distance Running Is Tied to Skin Cancer Risk
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By NICHOLAS BAKALAR

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Marathon runners may have an increased risk for skin cancer, a small study published Monday suggests, and excessive sun exposure and exercise-induced suppression of the body's immune system may be involved.

Malignant Melanoma in Marathon Runners (Archives of Dermatology)The lead author of the report, Dr. Christina M. Ambros–Rudolph, said the pilot study had reached no conclusion about the exact increase in risk that marathoners face.

But, Dr. Ambros–Rudolph said, "Our results show that there is a difference, in particular in sun exposure and measurable consequences such as increased solar lentigines."

Solar lentigines are "age spots" caused by long–term sun exposure.

The researchers, from the dermatology department of the Medical University of Graz in Austria, studied 210 marathon runners and a control group of 210 nonmarathoners matched for age and sex. All the subjects, runners and nonrunners, were white, a risk factor for malignant melanoma, the most aggressive form of skin cancer.

Each participant had a total body skin examination, and the scientists recorded information for all participants on eye color, skin shade, history of severe sunburn and family history of skin cancer, all known risk factors for skin malignancies.

Even though, by chance, the nonrunners had more benign moles and freckles and significantly higher sun sensitivity as determined by eye color and skin shade, the runners had more solar lentigines and more lesions suggestive of basal cell and squamous cell carcinomas, two less

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aggressive skin cancers. The study appears in the November issue of *The Archives of Dermatology*.

Sun exposure may not be the only risk factor that distance runners face. The authors write that although there is no question that regular exercise is important to good health, there is good evidence that high-intensity training and excessive exercise can lead to suppressed immune function.

"This is quite well established," Dr. Ambros-Rudolph said. "Many alterations in immune cell function have been noted at the cellular level in marathon runners.

"For example, there is the association between excessive exercise and immunosuppression reflected in the increased incidence and severity of upper respiratory tract infections in marathon runners after races."

The exact mechanism is unknown, but there is evidence that trauma sustained during extreme exercise can induce the release of cytokines, proteins that can stimulate the growth and activity of various immune cells and that may limit the ability of the immune system to fight potential cancers.

Clinical examination by dermatologists showed that none of the participants had lesions that suggested malignant melanoma. But 24 of the marathon group and 14 of the control group were referred for surgical treatment of lesions that appeared to be basal or squamous cell carcinomas or the precancerous lesions called actinic keratoses. Follow-up reports on these patients were not available because of the limits in Austrian laws on personal privacy.

About a third of the marathoners ran up to 25 miles a week, and nearly half ran 25 to 45 miles. Almost 15 percent ran more than 45 miles a week. Those who trained the most intensively had the highest rates of skin lesions.

Almost all the runners dressed in clothing that exposed the legs, arms, shoulders and upper back, and only about half used sunscreen regularly.

Physical exercise on sunny days can be more harmful to the skin than other kinds of sun exposure, the authors suggest, because sweating may significantly increase the sensitivity of the skin to ultraviolet radiation, making sunburn more likely. Moisture on the skin reduces the UV light to shorter wavelengths that are more easily absorbed and decreases their reflection and dispersion.

Dr. Ambros-Rudolph emphasized that the main problem, for both casual runners and extreme exercisers, is sun exposure.

"We hear a lot about sun exposure and skin cancer," she said.

"But we forget about it when participating in outdoor sports.

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Sunscreen alone is not the ultimate answer. It's also important to wear reasonable gear that covers the shoulders and upper back, and to avoid training in peak sun hours."

Is it the sun or are long distance runners generally not as well nourished as they would think? Is running apt to deplete your vitamin stores?

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