

# Acceptance of Sunless Tanning Products Is Rising

BY BRUCE JANCIN  
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KYOTO, JAPAN — The use of sunless tanning products by American women is on the rise, with the most cited reason by users being the topical products' safety as an alternative to sunbathing and tanning beds.

This is a most welcome trend. Increased public acceptance of sunless tanning products (STPs) holds the potential to cause a substantial reduction in skin cancer rates, Mary Jayne McIlwaine reported at an international investigative dermatology meeting.

"Despite the growing knowledge of the danger of sun exposure and UV tanning, our results suggest that a large proportion of the population still believes tanning is desirable and attractive. Until public opinion changes, it's important to provide the public with suitable ways to tan their skin without the dangers of UV exposure—such as STPs," she added at the meeting of the European Society for Dermatolog-

ical Research, the Japanese Society for Investigative Dermatology, and the Society for Investigative Dermatology.

Ms. McIlwaine surveyed 415 women, average age 28, regarding their tanning behaviors and beliefs. The women were queried in gyms, swimming pools, and university sororities and dining halls.

Forty-eight percent of respondents reported using STPs at least once in the past year.

"That's a much higher percentage than in previous published studies. This suggests STP use may be increasing," according to Ms. McIlwaine, a medical student at Emory University, Atlanta.

Encouragingly, 35% of the STP users indicated they employed these "tan-in-a-can" products as at least a partial replacement for sunbathing, and 25% reported using STPs in lieu of tanning beds.

STPs seem more popular with younger women. Fifty-four percent of 18- to 25-year-olds reported using them in the past year, compared with 41% of those aged 26-

40 and 40% of respondents over age 40.

Only 14% of women with brown or black skin reported using STPs, compared with 56% of those with very white/freckled skin and 54% of women with white/olive skin.

The survey results suggest that despite the growing awareness of the dangers of UV tanning, core ideas regarding the desirability of the tanned look remain largely unchanged.

Ninety-three percent of survey respondents indicated they believe tanned skin is more attractive than untanned skin. Seventy-nine percent said they feel better about themselves when they have a tan. Seventy-one percent of subjects reported sunbathing at least once during the past year, and 26% used a tanning bed.

Most STPs contain dihydroacetone, which reacts with amino acids in the stratum corneum to produce a temporary brown hue.

Respondents' top reasons for not using STPs were dislike of product color and



Tan-in-a-can products are a welcomed alternative to tanning beds.

streakiness. Thus, further technical improvements in product quality might be important in achieving greater public acceptance and more widespread use of STPs as a tool for skin cancer prevention, Ms. McIlwaine concluded. ■

## Mounting Evidence Points to Psoriasis As an Independent Risk Factor for CVD

BY DAMIAN McNAMARA  
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MONTREAL — Psoriasis is an independent risk factor for increased cardiovascular morbidity and mortality, according to a growing number of studies and new guidelines from the American Academy of Dermatology.

Based on this evidence, it is important to screen and regularly monitor psoriasis patients for cardiovascular disease risk factors, said Dr. Lyn C. Guenther, professor and chair of the division of dermatology at the University of Western Ontario, London.

An increased prevalence of cardiovascular disease among people with psoriasis—especially more severe forms—is not new. "I thought it was all related to their [increased] weight," Dr. Guenther said. "Psoriasis appears to be an independent risk factor now."

The American Academy of Dermatology addressed increased cardiovascular risk among people with psoriasis in guidelines released in May.

Studies also have suggested that the increased prevalence of hypertension and diabetes among people with psoriasis (*J. Am. Acad. Derm.* 2006;55:829-35) contributes to the risk, as does a typically atherogenic lipoprotein profile at the onset of skin disease (*J. Am. Acad. Dermatol.* 2007;56:629-34).

"This is something we cannot ignore any longer," Dr. Guenther said during a symposium sponsored by Abbott at the annual conference of the Canadian Dermatology Association. "I am not necessarily suggesting we are the ones who have to address this, but [we should] make sure these comorbidities are addressed."

Psoriasis is associated not only with increased cardiovascular morbidity, but also with increased mortality. "This theme comes up repeatedly," said Dr. Guenther, who has worked as a researcher, consultant, and speaker for Abbott, Amgen/Wyeth, Schering Plough, Astellas, and Leo Pharma. People with severe psoriasis have a 50% increased risk of death and tend to die earlier than do those without psoriasis (males 3.5 years earlier, females 4.4 years earlier). These figures do not apply to mild disease, she noted.

Not surprisingly, people with psoriasis also have an

increased prevalence of metabolic syndrome, Dr. Guenther said.

In one case-control study, 30% of 338 adults with chronic plaque psoriasis and 21% of 334 adults with other skin diseases met criteria for metabolic syndrome—a difference that was statistically significant (*Br. J. Dermatol.* 2007;157:68-73).

In addition, younger patients with more severe psoriasis appear to be the group at greatest relative risk for a myocardial infarction (*JAMA* 2006;296:1735-41). Those with severe psoriasis at age 30 years had more than three times the risk (relative risk, 3.1) of having a myocardial infarction, compared with the general population. Risk was lower but still elevated for 30-year-olds with mild psoriasis (RR, 1.29). In 60-year-olds, however, severe psoriasis conferred a 1.36 relative risk for an MI and mild psoriasis conferred a 1.08 relative risk.

Inflammation may be the common culprit in both psoriasis and increased cardiovascular disease. "Tumor necrosis factor- $\alpha$  [TNF- $\alpha$ ] is involved in cardiovascular disease and is a target for many of our therapies. High TNF levels are an independent predictor of cardiovascular morbidity and mortality, and TNF levels are high in psoriasis," Dr. Guenther said.

Elevated C-reactive protein levels may be an important link between psoriasis and cardiovascular disease as well, as was suggested in an editors' roundtable in the *American Journal of Cardiology* (*Am. J. Cardiol.* 2008;101:1119-26). "C-reactive protein is something we are starting to measure in our patients," said Dr. Guenther, who called the marker a very sensitive indicator of inflammation.

There are also immunologic similarities between atherosclerosis and psoriasis. Cell activation, inactive immunity, and adaptive immunity indicate that pathogenesis is similar between these two diseases, she said.

The good news is that treatment of psoriasis might reduce cardiovascular disease and death. "If you reduce inflammation, CRP, and TNF, it might reduce cardiovascular morbidity and mortality," Dr. Guenther said, citing as an example, a study of rheumatoid arthritis patients, in which methotrexate decreased the incidence of cardiovascular disease and mortality (*Lancet* 2002;359:1173-7). ■

## Plaque Psoriasis Tied To Arterial Stiffness

BY BRUCE JANCIN  
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KYOTO, JAPAN — Severe chronic plaque psoriasis is associated with increased arterial stiffness independent of conventional cardiovascular risk factors, reported Dr. Giampiero Girolomoni.

This arterial stiffness, a reflection of endothelial dysfunction, is expressed in a greater carotid-femoral pulse wave velocity on ultrasound than is seen in patients with other skin diseases, said Dr. Girolomoni of the University of Verona (Italy), at an international investigative dermatology meeting.

He reported on 39 patients with severe chronic plaque psoriasis and 38 controls matched for age, gender, and cardiovascular risk factors who had other skin diseases. Their mean age was 51 years. All underwent ultrasound assessment of arterial stiffness as measured by carotid-femoral pulse wave velocity.

Carotid-femoral pulse wave velocity was 8.57 meters/sec in the psoriasis patients and 7.45 meters/sec in controls. This difference remained significant after adjustment for hypertension, dyslipidemia, smoking status, obesity, and hyperhomocysteinemia. A higher value indicates greater impairment of endothelial function.

"We found a positive association between pulse wave velocity and years of psoriasis duration, but not with disease severity. This may suggest that the persistence of skin inflammation rather than its severity is a more relevant risk factor for endothelial impairment," Dr. Girolomoni said at the meeting of the European Society for Dermatological Research, the Japanese Society for Investigative Dermatology, and the Society for Investigative Dermatology.

Psoriasis is marked by increased production of inflammatory cytokines, including tumor necrosis factor- $\alpha$ ; interferon- $\gamma$ ; and interleukins-1 $\beta$ , -6, and -17. It's likely that even minor elevations in these cytokines, if continuous and long-lasting, may be deleterious, Dr. Girolomoni continued.

"This study suggests that carotid-femoral pulse wave velocity measurement could be used for early recognition of endothelial dysfunction and assessment of cardiovascular risk in psoriasis patients, and that only continuous long-term disease control may be helpful in reducing the cardiovascular risk associated with psoriasis," he said. ■