FDA Consumer magazine November-December 2003 Issue

Don't Be in the Dark About Tanning

By Michelle Meadows

Some think turning light skin darker gives off an aura of good health. But a suntan actually signals skin damage. When exposed to the sun's ultraviolet radiation, the skin produces a pigment called melanin to protect itself from burning. And while indoor or "sunless" tanning may seem like convenient alternatives, especially during the winter months, these practices may not be risk-free. Before stepping into a tanning booth or buying over-the-counter (OTC) tanning products, consider these facts.

Indoor tanning can be as harmful as outdoor tanning. More than 1 million people visit tanning salons on an average day, according to the American Academy of Dermatology (AAD). But many don't know that indoor tanning devices, such as tanning beds and sunlamps, emit ultraviolet (UV) radiation that's similar to and sometimes more powerful than the sun. The Food and Drug Administration discourages the use of tanning beds and sunlamps.

Be wary of claims about "safe rays" because there is no such thing. Both types of ultraviolet light, UVB and UVA, can cause wrinkling and other signs of premature skin aging, skin cancer, and damage to the eyes and the immune system.

The FDA enforces regulations related to the labeling and use of these products, while the Federal Trade Commission focuses on false, misleading, and deceptive advertising claims.

Also remember that some medical conditions such as lupus and diabetes can make skin more sensitive to light, as can some drugs such as birth control pills and medications such as the antibiotic tetracycline.

Some suntanning products don't contain sunscreen. It only takes a few bad sunburns to raise the risk of skin cancer, and skin damage builds up over years even when no burning occurs. This is why sunscreen, which blocks UVA and UVB, is recommended. The FDA has expressed concern about suntanning products without sunscreen, and

encourages consumers to check the labels. Tanning products without sunscreen must display a warning that the product does not protect against sunburn.

Sunscreen is regulated by the FDA as an OTC drug. Cosmetics that make sun-protection claims are regulated as both drugs and cosmetics. Look for products with a sun protection factor (SPF) of 15 or more. The higher the number, the better the protection. Sunscreen should be liberally applied to skin 30 minutes before going out in the sun, and then every two hours after that.

DHA-containing sunless spray is approved only for external use. During the last few years, some companies have offered a sunless option that involves spraying customers in a tanning booth with the color additive dihydroxyacetone (DHA). DHA interacts with the dead surface cells in the outermost layer of the skin to darken skin color.

DHA has been approved by the FDA for use as a tanner since 1977, and has typically been used in OTC lotions and creams. Its use is restricted to external application, which means that it shouldn't be sprayed in or on the mouth, eyes, or nose, says Linda Katz, M.D., director of the FDA's Office of Cosmetics and Colors in the Center for Food Safety and Applied Nutrition. "DHA should not be inhaled, ingested, or used in such a way that the eyes and eye area are exposed to it because the risks, if any, are unknown," Katz says. For consumers who choose to get DHA spray in tanning booths, the FDA recommends protective measures for the eyes, nose, and mucous membranes.

There are no tanning pills approved by the FDA. Some companies have marketed tanning pills that contain the color additive canthaxanthin. When large amounts of canthaxanthin are ingested, the substance can turn the skin a range of colors, from orange to brown. The additive is not listed for use in tanning pills in the United States, but rather is approved for use as a food color additive, and only in small amounts. Imported tanning pills that contain canthaxanthin may be refused entry into the United States because they contain non-permitted color additives.

Tanning pills have been associated with health problems, including an eye disorder called canthaxanthin retinopathy, which is the formation of yellow deposits on the eye's retina. Canthaxanthin has also been reported to cause liver injury and a severe itching condition called urticaria, according to the AAD.