BEAUTY

# What Tanning Beds Actually Do to Your Skin

The glow is damage, the base tan is no shield, and the evidence points to a safer way to get the look.

## The glow has already cost you

You step out of a tanning bed looking warmer, smoother, perhaps more rested. That immediate result makes the machine's invisible effect easy to ignore. But the colour is not evidence that your skin handled the session well. It is evidence that ultraviolet radiation reached your cells.

Ultraviolet (UV) rays are an invisible form of radiation. Tanning beds expose you to ultraviolet A (UVA) and ultraviolet B (UVB) rays-the same two types that affect skin in sunlight. Indoor tanning is not a controlled, harmless version of being outdoors. It is another source of the radiation that damages skin cells.

UVA travels more deeply into skin than UVB. In response to UVA exposure, your skin produces more melanin, the pigment that makes it look darker. That change is a defensive response to damage, not a sign of health. UVB can cause sunburn, while both types of exposure contribute to the larger problem.

A tan arrives only after the injury has begun. Some skin cells have been damaged and others may have died. You do not need to feel burned for that to be true. The absence of redness, soreness or peeling does not turn tanning into safe exposure; it only makes the damage less obvious.

## A bed is not the safer sun

The argument for tanning beds often depends on comparison: indoor light feels more predictable than a day outside, so it can seem easier to control. But tanning beds can expose you to a higher concentration of UVA than tanning in sunlight, along with some UVB. Predictable exposure is still exposure.

The possible consequences extend beyond sunburn. UV damage is associated with premature skin ageing, including wrinkles, dark spots, thickened or leathery skin and reduced elasticity. It can also damage the eyes, contributing to problems including cataracts and photokeratitis, sometimes called snow blindness.

The gravest concern is cancer. UV light can damage the deoxyribonucleic acid (DNA) in skin cells and interfere with the body's ability to fight cancer. Tanning is associated with melanoma and other skin cancers, as well as actinic keratosis-a thick, scaly patch that can eventually become cancerous.

Starting young makes the bargain worse. People who begin indoor tanning as teenagers or young adults have a higher risk of melanoma. There is also research suggesting that frequent tanning may become addictive. Whatever keeps you returning, the physical arithmetic is simple: the more often you tan, the more UV damage you accumulate.

The tanning bed offers a visible result by creating invisible damage.

## The base tan fails its promise

A "base tan" is often sold as preparation: darken your skin indoors now, then burn less on holiday. The reassuring idea is that a little damage will protect you from greater damage later. It does not. A base tan has already injured your skin, and it will not prevent sunburn when you go outside.

That matters because UV exposure does not belong only to beaches and heatwaves. It can reach you in cool weather, on cloudy days and in the shade. Water, cement, sand and snow can reflect it. A tanning session therefore does not replace the need for protection outdoors; it simply adds another source of exposure.

Vitamin D does not rescue the case for tanning beds either. UV rays help the body make vitamin D, but the supplied evidence does not present indoor tanning as a safe way to obtain it. The general health guidance is direct: avoid sunlamps and tanning beds.

Nor should sunscreen be treated as permission to collect more UV exposure. A 2018 systematic review of 29 studies involving 313,717 participants found no increased skin-cancer risk associated with sunscreen use, but it also did not confirm the expected protection against skin cancer in the general population. Sunscreen remains part of public-health advice, combined with shade and protective clothing-not a licence to tan.

## If what you want is colour

Sometimes the honest aim is not health but appearance. You want your skin to look darker for a photograph, an event or simply because you prefer it. Naming that goal helps, because you can separate the look of a tan from the UV exposure that creates one.

Sunless tanning lotions, gels and most spray tans commonly use dihydroxyacetone (DHA), a

colour additive that changes the appearance of the skin. These products have no known skin-cancer risk in the supplied guidance when used externally. That makes them meaningfully different from tanning beds, even though the finished colour may serve the same cosmetic purpose.

There are limits. DHA should not get into your eyes, nose or mouth, and spray should not be inhaled. Tanning pills are not an equivalent workaround: they contain a colour additive that can turn the skin orange, can be dangerous and are not approved by the Food and Drug Administration (FDA).

Most importantly, sunless colour is only colour. It does not protect you from UV rays outdoors. You still need the usual layers of protection: shade, tightly woven clothing, a wide-brimmed hat, sunglasses that block UVA and UVB, and broad-spectrum sunscreen with a sun protection factor (SPF) of at least 15.

## Make the next booking different

If you already use tanning beds, you do not need to calculate whether you have crossed some invisible line. The useful next step is to stop adding deliberate UV exposure. Cancel the next tanning-bed session rather than trying to make it shorter, less frequent or more carefully timed. The evidence supplied here does not identify a safe version of indoor tanning.

Then look at your skin rather than trying to read your history from it. Check for new spots and for changes in the size, shape, colour or feel of moles, birthmarks and existing marks. If you find something new or changing, contact a healthcare professional. That is where this stops being a cosmetic decision and becomes a medical question.

For the coming week, decide what you were asking the tanning bed to provide. If it was colour, use a sunless tanning lotion or gel, keeping it away from your eyes, nose and mouth. If it was supposed protection for a trip, replace that plan with shade, covering clothing, sunglasses and broad-spectrum sunscreen.

Put those alternatives where the decision happens: a bottle of broad-spectrum sunscreen, sunglasses, a wide-brimmed hat and, if you want colour, a sunless tanning lotion. The tanning bed offers a visible result by creating invisible damage. You can keep the look, or protect your time outdoors, without making that trade.

## Where this comes from

- Sun Exposure

  MedlinePlus, U.S. National Library of Medicine · https://medlineplus.gov/sunexposure.html
- Tanning

  MedlinePlus, U.S. National Library of Medicine · https://medlineplus.gov/tanning.html
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