

WHY DARK SPOTS HAPPEN

Regardless of the trigger—the sun, birth control, hormones, acne, inflammation, medication, trauma (from an accident or a skin treatment), or blue light all types of hyperpigmentation come from an uneven increase in melanin, which causes one part of the skin to appear darker in color than the rest. And no matter where the pigment lives—either in the lower layers of skin (dermis) or the surface (epidermis)—the way it develops is the same. A hormonal prompt activates the enzyme tyrosinase, which starts the creation of melanin. Once the melanin factory turns on, small packets of color (known as melanosomes) settle either deep in the dermal layer, resulting in darker, harder-totreat color (it can be present yet hidden and not visible to the naked eye) or on the

surface, which causes lighter, more diffuse discoloration. "Where it settles depends on which layer of skin the inflammation occurred in." says New York dermatologist Adebola Dele-Michael, MD. For example, a pimple will cause superficial pigment, whereas deeper damage, which can be seen on a VISIA scan at your doctor's office, can arise from a childhood sunburn. While some types of hyperpigmentation, including sunspots and freckles, show up quickly, others, like post-inflammatory hyperpigmentation (PIH) take longer to arise. "If the skin darkens after being outside for a few minutes, it's because present melanin pigments oxidize and trigger the brain to release chemicals that increase melanin production," says Dr. Dele-Michael.



THE 4 TYPES OF HYPERPIGMENTATION

Discoloration is not one in the same, and the specific type will determine how the skin will be treated. "There isn't a universal treatment because there isn't a universal skin type. Treatments are based on complexion, and some can potentially make discoloration worse, so they always need to be considered on a case-by-case basis. What may work for one person may not benefit another," says Dr. Dele-Michael.

MELASMA

Large and patchy, melasma is one of the most difficult types of hyperpigmentation to remove and appears most often in connection with a hormonal change, which is why it's commonly known as the "mask of pregnancy." There are two types of melasma: epidermal, which is light discoloration on the skin's surface, and dermal, a deeper pigment deposit that appears to the naked eye as dark brown or gray patches. Mixed melasma (epidermal and dermal melasma) exists, too. Because dermal melasma is so deep and very reactive to light and heat, it is extremely difficult to remove: one session in a sauna or one hot yoga class can heat the skin, causing

inflammation and pigment.

Time it takes to surface:

During pregnancy, around the second and third trimesters: when birth control or other hormonal factors are the cause, about one to four months after the hormones have been introduced. POST-INFLAMMATORY

HYPERPIGMENTATION

(PIH) Usually the result of cystic acne or extreme inflammation, PIH leaves skin red, pink or brown in color where the trauma transpired. "Dark skin is susceptible to developing PIH because its melanocytes are more efficient at producing pigment," says Dr. Dele-Michael. The best way to limit PIH is to avoid picking at breakouts, steer clear of

the sun, treat the skin with anti-inflammatory products that contain green tea extract or bisabolol, and of course. identify the underlying cause of the pigment and treat it. For example, if acne is the reason for PIH, controlling breakouts can help reduce it Time it takes to surface: A couple of days to a few weeks post-trauma.

These flat spots range from light to dark brown and are aused by the sun (there is also a hereditary compone o them) and can be found n the face, chest and hand following UV exposure, the of the skin from the release ment in the melanocytes Kathleen Behr, MD. Actinic and solar keratoses are also sun-generated, but are roug dry and scaly and can turn nto skin cancer if not treate Time it takes to surface: Hours to days, although some pigment has likely been building up for years.

FRECKLES Light and dark freckles, which tend to crop up during childhood, are most visible on lighter skin tones, but all skin tones can develop them. Most freckles appear before puberty and then fade as we age, but any additional sun exposure will darken them. Time it takes to surface: New freckles form in just a few hours in the sun, and existing freckles darken even faster.