

Hyperpigmentation

Hyperpigmentation is the darkening of an area of skin or nails caused by increased melanin.

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Specialty

Dermatology

Causes

Hyperpigmentation can be caused by sun damage, inflammation, or other skin injuries, including those related to acne vulgaris.^{[1][2][3]:854} People with darker skin tones are more prone to hyperpigmentation, especially with excess sun exposure.^[4]

Many forms of hyperpigmentation are caused by an excess production of melanin.^[4] Hyperpigmentation can be diffuse or focal, affecting such areas as the face and the back of the hands. Melanin is produced by melanocytes at the lower layer of the epidermis. Melanin is a class of pigment responsible for producing colour in the body in places such as the eyes, skin, and hair. As the body ages, melanocyte distribution becomes less diffuse and its regulation less controlled by the body. UV light stimulates melanocyte activity, and where concentration of the cells is greater, hyperpigmentation occurs. Another form of hyperpigmentation is post inflammatory hyperpigmentation. These are dark and discoloured spots that appear on the skin following acne that has healed.^[5]

Hyperpigmentation is associated with a number of diseases or conditions, including the following:

- Addison's disease and other sources of adrenal insufficiency, in which hormones that stimulate melanin synthesis, such as melanocyte-stimulating hormone (MSH), are frequently elevated.
- Cushing's disease or other excessive adrenocorticotrophic hormone (ACTH) production, because MSH production is a byproduct of ACTH synthesis from proopiomelanocortin (POMC).
- Acanthosis nigricans—hyperpigmentation of intertriginous areas associated with insulin resistance.
- Melasma, also known as 'chloasma' or the “mask of pregnancy,” when it occurs in pregnant women.— It is a common skin problem that causes dark discolored patchy hyperpigmentation. It typically occurs on the face and is symmetrical, with matching marks on both sides of the face. The condition is much more common in women than men, though

men can get it too. According to the American Academy of Dermatology, 90 percent of people who develop melasma are women.^[6]

- Acne scarring from post-inflammatory hyperpigmentation
- Linea nigra—a hyperpigmented line found on the abdomen during pregnancy.
- Peutz-Jeghers syndrome—an autosomal dominant disorder characterized by hyperpigmented macules on the lips and oral mucosa and gastrointestinal polyps.
- Exposure to certain chemicals such as salicylic acid, bleomycin, and cisplatin.
- Smoker's melanosis
- Coeliac disease
- Cronkite-Canada syndrome
- Porphyria
- Tinea fungal infections such as ringworm
- Haemochromatosis—a common but debilitating genetic disorder characterized by the chronic accumulation of iron in the body.
- Mercury poisoning—particularly cases of cutaneous exposure resulting from the topical application of mercurial ointments or skin-whitening creams.
- Aromatase deficiency
- Nelson's syndrome
- Grave's disease
- Schimke immunoosseous dysplasia (SOID)^[7]
- As a result of tinea cruris.

Hyperpigmentation can sometimes be induced by dermatological laser procedures.

Diagnosis

- A physical examination including, Wood's lamp examination and a detailed history, usually sufficient for diagnosis.
- Skin examination.
- Viewing medical history.

Treatment

There are a wide range of depigmenting treatments used for hyperpigmentation conditions, and responses to most are variable.^[8]

Most often treatment of hyperpigmentation caused by melanin overproduction (such as melasma, acne scarring, liver spots) includes the use of topical depigmenting agents, which vary in their efficacy and safety, as well as in prescription rules.^[9] Several are prescription only in the US, especially in high doses, such as hydroquinone, azelaic acid,^[10] and kojic acid.^[11] Some are available without prescription, such as niacinamide,^{[12][13]} or cysteamine hydrochloride.^{[14][15]} Hydroquinone was the most commonly prescribed hyperpigmentation treatment before the long-term safety concerns were raised,^[16] and the use of it became more regulated in several countries and discouraged in general by WHO.^[17] For the US only 2% is at present sold over-the-counter, and 4% needs prescription. In the EU hydroquinone was banned from cosmetic applications.^[18] Oral medication with procyanidin plus vitamins A, C, and E also shows promise as safe and effective for epidermal melasma. In an 8-week randomized, double-blind,

placebo-controlled trial in 56 Filipino women, treatment was associated with significant improvements in the left and right malar regions, and was safe and well tolerated.^[19] Other treatments that do not involve topical agents are also available, including fraction lasers^[20] and dermabrasion.^[9]

See also

- Hypopigmentation
- List of cutaneous conditions

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External links

<p>Classification ICD-10: L81.0- D L81.4 • ICD-9-CM: 709.0 (http://www.icd9data.com/getICD9Code.ashx?icd9=709.0) • MeSH: D017495 (https://www.nlm.nih.gov/cgi/mesh/2015/MB_cgi?field=uid&term=D017495) •</p>
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