

Melasma

Melasma is a pigmentary skin disorder that appears as brown facial patches. Melasma occurs in all skin tones and 90% of cases are in women. Patients with darker skin tones in areas of high sun exposure, like Houston, are especially susceptible to getting melasma.

The causes of melasma are multiple with family history, sun, heat, inflammation, and hormones playing a role. UV light from the sun, visible light from light bulbs, and blue light from device screens can stimulate pigment-producing cells in the skin called melanocytes to produce more pigment. Melanocytes are particularly active in those with darker skin tones. Even small amounts of light exposure, such as driving in a car or walking in a parking lot to a store can induce melasma and may account for the long duration of this condition in many people. Inflammation in any form can also cause melasma to worsen. Examples of inflammation include waxing, harsh skincare products, and extreme heat (hot yoga, saunas, and jacuzzies). Female hormones such as oral contraceptive pills and pregnancy hormones can also play a role in worsening melasma.

Treatments

Several treatments are available for melasma, but none work in every patient. While some patients have melasma only for a few weeks or months, the majority will have it for **years** or **decades**. Because the sun and light are major causes of melasma, sunscreens are essential to any treatment plan. The latest research shows physical sunscreens, zinc oxide or titanium dioxide, are the best for melasma patients. Chemical sunscreens can create more inflammation in the skin of melasma patients. Sunscreens containing iron oxides can also protect against infrared light and visible light, including blue light from device screens. Daily use of sunscreens is important, since even small doses of light can worsen melasma. We recommend an SPF >45 for daily usage along with frequent re-application. Powder based sunscreen, such as the **Colorescience Sunforgettable Brush SPF 50**, can allow for easy re-application over make-up. When outside for longer time periods, wear a wide brim hat, large sunglasses, and seek shade.

Oral contraceptive pills may need to be discontinued if they cause melasma. Irritating creams or makeup, waxing, and harsh scrubs should be stopped, and the skin should be treated as gently as possible. Patients should avoid extreme heat such as saunas, hot yoga, and jacuzzies.

Many brightening creams are available for the treatment of melasma. **Hydroquinone** is the most commonly used and is available with a prescription. Hydroquinone is the most effective of all the brightening agents, but takes 3-6 months to reach maximum results. Azelaic acid, such as **Glytone Brightening Complex**, has brightening effects and is safe and effective for pregnant and breastfeeding mothers. Several physician dispensed products are available to brighten the skin and may be effective for mild cases of melasma and maintenance regimens. We also recommend **Phloretin**, a topical antioxidant from SkinCeuticals, every morning to reduce inflammation caused by sun, heat, and visible light.

Various cosmetic procedures, including chemical peels and laser surgery have been used in patients with melasma, but results can vary from patient to patient. Procedures which induce significant inflammation and irritation, which can worsen melasma, should be avoided. Superficial chemical peels, microneedling, and lasers which produce minimal inflammation can be used along with a skin brightening regimen, sunscreen, and safe sun techniques. Lasers which may be used in melasma include **LaseMD**, Clear & Brilliant Permea, **Spectra** – low fluence q-switch laser, and a fractionated pico laser. As melasma is a long-term condition, preservation treatments will be needed to help maintain your results.

In summary, while melasma can be a persistent, frustrating and difficult skin disorder, a comprehensive management approach, including avoidance of sun and irritants, use of sunscreens, brightening agents, occasional procedures, and close supervision by your dermatologist can lead to a successful outcome.

Sunscreen

Colorescience Sunforgettable brush SPF 50[^]
Colorescience EvenUp SPF [^]
EltaMD Clear SPF 46

Skin Brighteners

Glytone Brightening Complex
Neocutis Perle
SkinCeuticals Phloretin
Hydroquinone – RX needed

Cosmetic Treatments*

LaseMD
Spectra laser
Microneedling
Superficial chemical peels

**these treatments are not covered by insurance and are considered cosmetic
^also contains iron oxide to protect against visible light and infrared light*