Most of us will have some form of skin pigmentation from a combination of sun exposure, age spots, post-inflammatory hyperpigmentation, circles under the eyes, and hormonal changes known as “melasma” or “chloasma”.

Dark pigments, especially larger patches along the cheeks and forehead can affect self-esteem and require us to use thick make-up coverage in an effort to conceal these pigments. These pigments are among the most important aesthetic concerns for both men and women, and can be frustrating to treat since over-the-counter cosmetic creams may not work.

What causes skin pigmentation? The pigment “melanin” is the basis for our skin color, and it is formed by cells known as melanocytes in the epidermis (top layer of our skin). Some of us are darker because we have a higher concentration of melanin. After sun exposure or tanning, our skin increases melanin production as a form of defense against ultraviolet or UV rays. This can lead to “sun damage” and “sun spots” or freckles, which are brown spots usually on the face and the back of the hands.

Another common cause of pigmentation is “post-inflammatory hyperpigmentation” also known as “PIH”. This type of pigmentation develops in response to some form of inflammation or irritation to the skin- such as acne, eczema, trauma, and even after some very strong treatments such as chemical peels and laser resurfacing.

Melasma or “mask of pregnancy” is a condition that is very common and is frequently seen during or after pregnancy or use of oral contraceptives. Melasma usually looks like a “patch” of pigmentation, commonly on the cheeks, forehead and chin. Contributing factors are hormonal
changes and sun exposure. Melasma can be very deep, and can reach the second layer of the skin (dermis) and if so, can be more difficult to treat.

The good news is that possible treatment options to lighten or improve pigmentation. There are many "lightening" products available- some of the most effective ones are available only through doctors. Generally, the treatment for pigmentation will take a few months to work- so patience is key.

1. Creams

A variety of creams are available to treat pigmentation. These agents tend to block the formation of melanin. An active ingredient in these creams may be hydroquinone, a commonly used skin-lightening agent. Hydroquinone is available only through doctors’ clinics, and your doctor can prescribe higher percentages of hydroquinone as necessary.

Other non-hydroquinone lightening agents include kojic acid, arbutin or azelaic acid. In addition to the lightening agent, your doctor may also prescribe creams containing glycolic acid (an alpha hydroxyl acid or AHA), triretinoin (a form of Vitamin A) and mild steroids to enhance the skin-lightening effect of the treatment.

Most of these creams may cause mild redness of the skin and these generally take months to
result in significant lightening of pigments.

2. Depigmentation Peels or Masks

Chemical peels may also be used to lighten pigmentation. One such depigmentation mask is Cosmelan® Depigmentation, a treatment mask which contains ingredients that block the action of an enzyme that is necessary in the formation of melanin. This treatment can be used for different types of pigmentation including melasma.

The doctor will apply the mask to be left on the affected area for up to 8-10 hours depending on your skin type. Afterwards, you will be asked to use home creams to continue the lightening effect.

The treatment may cause some peeling but it tends to be well-tolerated with no downtime.

3. Laser and Intense Pulsed Light (IPL) Treatments

There are many different types of laser and IPL treatments. A pigment IPL uses a broad band of light (like a flashlamp) to target melanin and cause it to scab and fall off. A laser uses a specific or precise wavelength to treat the target, and may include a resurfacing laser or an Nd:Yag laser.

A resurfacing laser means that the damaged layer of the skin is gently taken off and new skin takes the place of old skin. Resurfacing lasers can also improve pores and fine lines. Some resurfacing lasers may require several treatments because they are “fractional” and treat only a fraction of the skin. Other lasers may be a full-surface resurfacing requiring only one to two treatments.
With all of these treatment options and with different types of pigment, it is important to do a computerized skin analysis to determine the depth of your pigment. Sometimes, a treatment that may be suitable for a superficial pigment may not be appropriate for a deeper pigment. A photograph showing the pigmentation in the deeper layers of the skin will also help determine if the pigmentation is improving with the treatment.

Finally, before starting any treatment plan for pigmentation, talk to your doctor about the type of pigment that you have and which treatment is right for you.