

## Hyperpigmentation - a problem for all ethnic skin types

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### Skin Solutions



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Hyperpigmentation - uneven dark marks on the skin, ranging from freckles to extensive brown patches over the face - is one of the most complex and difficult aesthetic skin conditions to treat successfully. Until recently treatment protocols have been very limited in both choice and efficacy and have mainly consisted of glycolic peels and other aggressive exfoliation methods, or use of the now discredited (and prohibited) pigment suppressor, hydroquinone. But the latest scientific research has led to a better understanding of the intricate processes that lead to pigmentation disorders and to safer and more effective ways to deal with them.

The problem centers around the melanocyte, an epidermal cell responsible for producing and distributing pigment (melanin) via long "arms" called dendrites to approximately 30 skin cells (keratinocytes). There are about 1100 melanocytes per 1mm square of human skin. They can live up to 50 years and are easily damaged or destroyed, but they do not regenerate frequently. Damaged or missing melanocytes leave the skin unevenly pigmented and looking mottled or patchy. They are compromised by excessive UV light, by essential fatty acid deficiency and by physical trauma and inflammation (such as Acne, for example).

But there can also be a hormonal element, coming from the pituitary gland. Prolonged chemical stimulation to the gland, such as through contraception and IVF treatments, can cause a type of pigmentation called Melasma which appears as widespread, dark patches in a symmetrical pattern on the face. Pregnancy and hereditary predisposition can also cause Melasma - hence the common name 'mask of pregnancy'. This is the hardest form to get rid of and with the addition of sun damage it can become permanent.

Melanocytes always respond to UV light with both red and brown pigments. The medium white to darkest black skin tones have more brown pigment and are therefore less likely to burn but are more susceptible to pigmented skin disorders. The lightest skin tones have more red pigment - specially those with the red-head gene - and these burn more easily and are susceptible to skin cancers, because the red pigment is easily converted by UV light to a free radical which damages surrounding cells. Due to today's rich ethnic mixes the presence of the red-head gene is not always obvious. Therefore, an accurate diagnosis of the sufferer's ethnic and genetic background is essential in deciding the most effective treatment for hyperpigmentation.

So what works? Disrupting as many stages as possible in the the long chain of reactions in the skin that leads to the formation of melanin is the safest and most efficient approach. Nowadays we have better chemical interventions than 10 years ago. But the first intervention, in all cases - regardless of skin colour - is repeated, daily use of a powerful UVA/UVB sunblock. Without this everything else is a waste of time. My black and Asian clients often resist this idea in the beginning because they are not prone to burning, but of all skin tones theirs are the most prone to pigmentation from all the triggers, including UVA rays, which do not burn but are present in all daylight conditions and definitely stimulate melanin production.

Other important interventions include the use of properly formulated skincare products containing active ingredients that inhibit chemical reactions leading to pigment production. Such actives include antioxidants Alpha lipoic acid, Idebenone and Aloesin plus vitamins A,C,E and niacinamide; lactic, azelaic and kojic acids; plant extracts such as licorice, mulberry and bearberry, and innovative new ingredients such as SepiWhite-MSH. These can all be applied both in the home-care regime and through professional treatments. In addition, oral supplementation with high dose omega 3 fish oils helps to repair damaged melanocytes and keep the keratinocytes in good condition.

Excessive exfoliation should be avoided in order to rebuild the skin barrier defence systems, but I do find certain peels that introduce vitamins A and C deep into a well prepped skin very effective. The enhanced product penetration effects of iontophoresis and sonophoresis (ultrasound) are also excellent for applying actives without the risk of inducing post-inflammatory pigmentation. Finally, Intense Pulsed Light treatments also have a role to play in the fight against hyperpigmentation, but only on the lighter skin shades, where the contrast between pigmented marks and skin colour is greatest.

Success against this difficult and upsetting condition requires patience and a firm commitment to a long-term personal treatment plan that should encompass many of the above-mentioned interventions. If the therapist and the client work together towards a realistic goal, it is possible to beat even the worst hyperpigmentation.

For help with hyperpigmentation you can contact Tamara Double on 01865 749095