

Maintaining good skin – general health advice

The following lifestyle changes have been shown to be effective in producing better quality skin:

- Drink plenty of water
- Eat plenty of rooted fruits and vegetables
- Minimise red meat consumption
- Minimise alcohol ingestion
- Stop smoking
- Exercise regularly
- Ensure you sleep well

Apart from improving these lifestyle factors you should also:

- 1) Avoid sun exposure
- 2) Wear protective clothing when outside
- 3) Use sunscreens – these should provide protection against both UVA and UVB.
- 4) Consider taking antioxidants – vitamins A, C, and E are photoprotective and help protect against the damage caused by the sun and other factors
- 5) Have a regular daily skin care program which contains:
 - Skin exfoliants and stimulating agents, such as alpha hydroxy acids and Retinol
 - Protective agents, such as sunscreens and antioxidants eg topical vitamin C
 - Preventative agents, such as antioxidants eg topical vitamin C and a lightening agent to help prevent brown spots appearing

The skin care program

Skin care programs involving the above agents often take 4-6 months before any changes are noticeable. The treatment needs to be continued for any improvement to be maintained, and it is essential to prevent further damage by changing lifestyle factors, especially sun avoidance.

The basic skin care program should contain the following:

- Retinol
- Alpha hydroxy acid
- Topical vitamin C
- Lightening agent
- Sunscreen
- Moisturiser



Information on the skin care products



Be careful in the selection of skin care products. Many of the creams or gels marketed as containing many of these substances have only very small amounts of the active ingredient, and may not have the beneficial effects produced by these substances in a more concentrated form. It may be possible to buy a cream or gel containing a combination of these compounds, but this should not be at the expense of having the compounds being too weak to be effective.

Retinol (tretinoin)

Retinol is a compound related to vitamin A, which reverses some of the effects of aging. It significantly increases the amount of collagen in the skin, and improves fine wrinkles and helps to lighten brown spots.

It may be used in combination with alpha hydroxy acids, and the combination is usually well tolerated and may have an additional benefit. It should also be combined with a lightening agent (see below) for reduction of skin pigmentation (brown spots). If therapy is stopped then the skin returns to pretreatment condition 6 weeks later, and therefore continued use is required.

For those who are sensitive to taking Retinol, an alpha hydroxy acid may be substituted.

Alpha hydroxy acids

Alpha hydroxyl acids (AHAs) enhance exfoliation, increasing cell turnover, smoothing the skin and helping to reduce mottled hyperpigmentation, and again are most effective when combined with hydroquinone. A desirable pH for a therapeutic preparation is between 2.8 and 4.8 (pH about 3.0 produces the most effective epidermal renewal). A fully neutralised solution will produce little cutaneous activity.

Note that the concentration of AHAs in cosmetics cannot exceed 10% and the pH of the cosmetic must be 3.5 or higher – these products only offer mild improvement for photodamage. Doctor prescribed formulations contain medium strength concentrations are more effective, and high strength concentrations are used in peels.

Note that both Retinol (tretinoin) and alpha hydroxy acids increase sun sensitivity, and therefore sun avoidance and the use of a broad spectrum sunscreen is essential.

Topical vitamin C and E –

These antioxidants help to protect against the ultraviolet rays of the sun by fighting oxygen free radicals in the skin (preventing collagen breakdown, aging, and helping to protect against the development of skin cancer). They also protect against damage from free radical formation from environmental pollutants, smoking, and alcohol. Vitamin C stimulates collagen production, and diminishes the appearance of fine lines and wrinkles.

When applied on the skin Vitamin C is most effective as a 15-20% solution. There are some studies showing that the combination of Vitamin C and E is more effective than either alone.

Lightening agents

Skin pigmentation is caused by melanin, and sun exposure stimulates the production of melanin by the skin, causing both a darkening in colour and the appearance of darker “age” spots. There are a number of treatments which decrease the production of melanin by stopping the enzyme tyrosinase, which produces melanin, with the commonest being hydroquinone, kinerase, and azelaic acid.



Sunscreen/sunblock

A lot commercially available sunscreens only give protection against UVB, which causes sunburn, but not against UVA, which causes many of the changes of photoaging and skin cancer.

A sunscreen should contain protection against both UVA and UVB, and be a SPF (sun protection factor) of 15 or greater. The SPF factor is only calculated on the effectiveness of the sunscreen against UVB.

There are some newer sunscreens containing micronised zinc oxide (which is the broadest spectrum sunscreen available, and protects against both UVA and UVB) which are colourless, rather than the old fashioned opaque versions.

Starting new skin care products

Any new product should be tested by putting a small area eg postage stamp on the skin overnight, and watching to see if irritation occurs. When starting a combination of products, only one should be introduced at a time. Many of the Cosmedix products are in a highly concentrated and refined form, which only need a small amount to be effective eg pea-sized dab for the entire face and neck.

After starting Retinol (Cosmedix “Refine”) some redness or light peeling often starts within several days of initiating treatment, but the skin “hardens” and the reaction decreases with continued use, but this phase may last a few weeks. The hardening effect is lost when the application is stopped. Application should be 20-30 minutes after facial cleansing to avoid irritation. Starting application every second or third day minimises the chance of this reaction.

Topical vitamin C produces a mild tingling effect when applied to the skin, which is normal.

Instructions if skin irritation occurs

If significant irritation occurs, stop all soaps, all other applications to the skin, red wine, spices, tea and coffee, sun exposure or being in a warm environment. Use Cosmedix Rescue and hydrocortisone three times a day, and wait 2-3 days before restarting or starting another cream.