

Ask the Pharmacist

Your pharmacist is the best (next to your doctor, of course) source of information on medicine and how to get the most from your treatments.

Is being Snow White really dangerous?

Q: I have been using a whitening cream for uneven skin tone and brown spots on my face. But, recent newspaper reports state such products are banned in Malaysia. Are such products really dangerous?

A: Over the past years, the Ministry of Health Malaysia has banned over 20 cosmetic products containing depigmenting (skin bleaching) agents, such as hydroquinone and tretinoin, from being sold on open shelves. Some skin lighteners may contain steroids which are also banned in cosmetics.

Any products containing such ingredients are “scheduled poisons” that can only be used under medical supervision and supplied by doctors or pharmacists.

However, some cosmetic products may contain hydroquinone in 2% concentration, which can be sold over-the-counter (OTC).

Melanin and hyperpigmentation

The colour tone of skin is due to the presence of melanin – a pigment produced by melanocyte cells, also found in the hair, eye and nail bed.

Too much melanin or hyperpigmentation results in the darkening of skin, or blotchy skin and particularly in moles and birthmarks.

Hydroquinone (or 1,4-benzenediol) is an industrial chemical used in most photographic developers. It is a very effective inhibitor of melanogenesis (melanin production), inhibiting the activity of the enzyme tyrosinase that is needed to make melanin. It also increases the excretion of melanin from melanocytes and thus the breakdown of melanosomes (melanin pigment granules) in the skin.

Tretinoin (or retinoic acid) is the acid form of vitamin A. Tretinoin alone is less effective in treating hyperpigmentation, thus it is used mainly to enhance the efficacy of hydroquinone.

What are the side effects of hydroquinone?

- Skin irritations e.g. mild itching and stinging/burning;
- Reddening of skin;
- Scaling or crusting (possibly due to allergic contact dermatitis); and/or
- Exogenous ochronosis (persistent blue-black pigmentation).

Even preparations with hydroquinone as low as 1-2% with a sunscreen have been reported to cause ochronosis. Ochronosis usually becomes apparent after six months of use and once it occurs, it is usually irreversible.

What precautions should I take?

During any skin-lightening treatment phase, always avoid the sun by using sun-protective clothing and sunscreen/sunblock to prevent repigmentation due to UV light. Do not use sunlamps or tanning salons.

Other considerations when using hydroquinone include:

- Do a skin sensitivity test on a small patch of hyper-pigmented skin. Do not use if redness or itching occurs within 24 hours.
- Apply only a thin layer of cream onto the affected area(s).
- Avoid applying to normal skin, as this will lighten as well.
- Do not apply near the eyes, mouth and other mucous membranes.
- Hydroquinone should not be used during pregnancy or when breastfeeding.
- If no bleaching effect is seen after three months of treatment, stop using hydroquinone. **OH!**