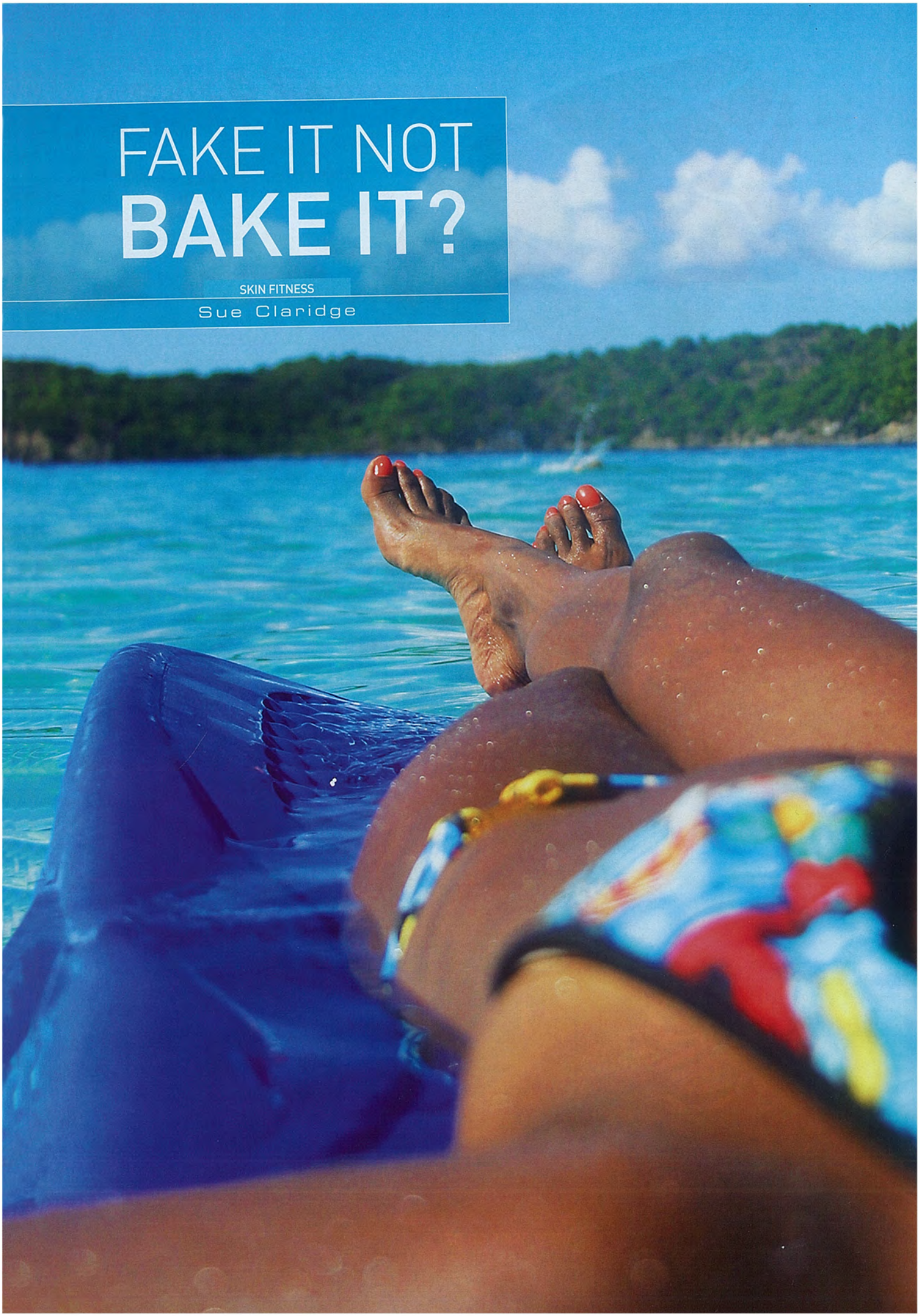
FAKE IT NOT BAKE IT?

SKIN FITNESS

Sue Claridge



Fake tans, sunscreens, sunbeds – is there a safe way to a healthy tan? Sue Claridge investigates

DESPITE two or three decades of 'sun safe' messages, many of us aspire to possess at least the appearance of tanned skin. It seems that a bit of flabby or untoned flesh doesn't look half as bad if it is covered by a tan, as when it is pasty and pale.

Yet we know that, beyond an adequate amount of healthy sun exposure required for the production of vitamin D (see our Sun Health article on page 32), what a sun-acquired tan really represents is skin damage. Such damage is widely accepted to cause skin cancers such as basal cell carcinoma and melanoma in some people,* and in our sun-worshipping nation, we do have a high rate of these cancers. UV exposure also causes premature ageing of the skin, including increased wrinkling, irregular pigmentation, altered skin texture and loss of skin elasticity – not really the look we're after.

So, how can we get a healthy tan, with or without sun?

SUNSCREENS

The most obvious (and highly promoted) method of staying safe in the sun is to use sunscreens. They are extremely widely used in New Zealand and Australia and certainly appear to be very effective at protecting the skin from burning if used properly and reapplied when required. However, recent research has raised concerns about whether or not they are as safe as we assume.

While government agencies oversee the safety and efficacy of drugs, there is no such regulation of cosmetics – the category into which sunscreen falls. In a regulatory sense, a much lower safety threshold applies to the things we rub into our skin.

Some of the ingredients in many sunscreens are in themselves carcinogenic or potentially toxic. These include PABA, oxybenzone, padimate-O or octyly dimethyl PABA and octyl methoxycinnamate (present in 90 percent of sunscreen brands). In 2001, a team of Swiss researchers reported that five out of six commonly used UVB and UVA radiation screens showed oestrogenic activity (Bp-3, octyl-methoxycinnamate, homosalate, 3-(4-methylbenzylidene) camphor, and octyl-dimethyl PABA). Oestrogenic chemicals interfere with our natural hormone and endocrine systems, and can have significant effects on the health of women, men and children. They have been associated with breast and prostate cancers, deformities in the reproductive and genital tract of male babies, and early breast development in girls, among other serious health problems.

In some research, titanium dioxide, which is commonly found in sunscreen (including many 'natural' ones), has been identified as a problem ingredient. It is a known carcinogen and can lead to the generation of hydroxyl radicals in water, although it is not clear if this is a problem with the way in which it is applied to the skin in sunscreens. The personal skin care safety guide *Skin Deep* rates titanium dioxide as low on their 'concern meter' (0.3 out of 5, with 5 being the most dangerous), saying that there is limited evidence of carcinogenicity. However, they admit that there is limited safety data regarding this mineral.

While sunscreen offers valuable protection from the damaging effects of UV radiation, it pays to read the list of ingredients and perhaps do your own research in order to establish how safe a product is. Ultimately, it is a matter of weighing up the harm caused by not using sunscreens against possible negative impacts on other areas of your health from using them.

If you are concerned about what is in your sunscreen and what effect that might have on you, there are plenty of natural and organic alternatives that work equally as well. There is a wide range of brands, from Living Nature and Dr Hauschka at the top end to, for example, EcoStore and NOM, which can be found in your local health or organics shop. All are widely available with SPFs of up to at least 25.

You could also consider physical protection from wearing appropriate clothing, and modifying your behaviour by staying out of the sun between 10am and 3pm.

FAKING IT

Self-tanning lotions and sprays are the 'methode du jour' to achieve a bronzed look without risking sunburn, and they have certainly improved since the days of Coppertone QT, which stained one's skin – not to mention clothes – a rather lurid shade of orange. Self-tanning products contain dihydroxyacetone (DHA), which interacts with proteins in the skin to produce a tanned colour.

Unfortunately, DHA is a chemical that may not be so good for your health. Dr Celeste Robb-Nicholson, editor-in-chief of *Harvard Women's Health Watch*, says: "Although self-tanning is generally considered safe, few safety studies have been published. Allergic reactions are rare, but the long-term effects remain largely unknown... A study found that DHA added to skin cells damaged proteins in the cells' DNA, suggesting more research is needed before DHA can be declared safe for long-term use."

The good news is that there are some natural self-tanning products out there that don't contain DHA and are loaded with natural ingredients like aloe, almond and avocado oils, and vitamins. Please bear in mind that most fake tan products do not offer any sun protection unless they have sunscreen added to them.

Another sunless tanning option is bronzers that come as powders, creams and lotions. Ingredients range from a few mineral oxides that provide colour, through to an exhaustive list of familiar chemicals and compounds (including several oestrogenic parabens). Therefore, they present the same safety concerns as sunscreens and other cosmetic products. Generally, the fewer the ingredients, the lower the level of concern according to *Skin Deep's* rating system of 78 bronzing products.

One way to acquire a sun-kissed look for your face without being exposed to a host of chemicals is mineral make-up. Mineral make-up products are based on micronised minerals and are made without mineral oils, chemical dyes and preservatives. Some ranges include specific bronzers as well as liquid, powder and compact foundations. Gaining in popularity, these natural cosmetics are hypoallergenic and most have an inherent sun protection factor of between 18 and 25 because of the titanium dioxide and zinc oxide used as a base.

The reality is that there may not be a perfect product that contains no potentially harmful substances. You may have to swap a harmful product with one that is not quite as bad to avoid negative health effects long term. Actively check out the labels on your products, and avoid ingredients that are known to be oestrogenic, carcinogenic or just plain irritating to your skin. A helpful resource in this respect is *Skin Deep*, a personal care product safety guide with in-depth information on 14,841 products, including sunscreens and self-tanning lotions. It provides safety ratings and brand-by-brand comparisons that can help consumers choose safer products. For a listing of these products, check out *www.ewg.org/reports/skindeep2*. Unfortunately, *Skin Deep* does not list many NZ products such as Living Nature or Evolu.

SUNBEDS

Sunbeds are *not* a safe way of getting a tan. Although your exposure is controlled, you are still undergoing UV radiation. The production of melanin in the skin is the body's way of responding to skin damage and trying to protect it from more. According to Sunsmart New Zealand, the UV radiation from a sunbed or solarium is more intense than natural sunlight – in fact, sunbeds can emit ultraviolet radiation up to five times as strong as the summer midday sun. The Australasian College of Dermatologists and the Cancer Society of New Zealand do not support cosmetic tanning in solariums under any circumstance.

TANNING PILLS?

Don't even think about this option. Tanning pills contain canthaxanthin. Their use has been associated with a range of problems, including eye damage, hepatitis and urticaria, a condition that involves itching and skin eruptions. They are banned in the US.

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**There is a substantial group of people, including som health professionals, who question the doctrine that su exposure causes skin cancer and melanoma. Howeve it is beyond the scope of this article to discuss th evidence for and against the association between su exposure, skin damage and skin cancer.*