

SKIN BITES: HOW TO BE THE YOUNGEST OF THEM ALL?

The latest beauty buzzword seems to be glutathione after many studies have shown that the oral form may not be as effectively absorbed as its sublingual counterpart, which has improved bioavailability for skin whitening. Jennifer Ho finds out what the hype about glutathione is – and whether you should include it in your supplement stash.

GLUTATHIONE is supposedly the single most important molecule, composed of three amino acids: L-cysteine, L-glycine, and L-glutamic acid, which you need to stay healthy and prevent diseases caused by free radicals – yet not many people know of it.

Produced naturally by every cell of the body, it is the master antioxidant and most efficient detoxifier. It also plays an important role in preventing oxidative damage to the skin, thanks to its anti-melanogenic effect that prevents skin from getting darker while promoting skin brightness.

Many glutathione supplements in the market come in tablets or capsules form. Unfortunately, a study¹ found that it was not feasible to increase circulating glutathione to a clinically beneficial extent by oral administration as the human gastrointestinal tract contains significant amounts of an enzyme that break down glutathione. A better option would be to take glutathione by a sublingual route, so its bioavailability is increased.

1. Arjinpathana N, Asawanonda P. Glutathione as an oral whitening agent: a randomized, double-blind, placebo-controlled study. *J Dermatolog Treat* 2012; 23:97-102.



INTERVIEW

To get a better understanding of this unique formulation, we spoke to Dr K K Chew, medical director and founder of NU•U Aesthetics & Wellness Clinic, and asked for his medical opinions on the latest anti-ageing weapon.

LiveWell: Do beauty supplements really work?

Dr Chew: They work within the confines of what they claim, as long as the claims are supported by competent and reliable scientific evidence. Of course there are beauty supplements that state that taking it will help you look 10 years younger; those are the ones that you need to take with a pinch of salt.

How does glutathione supplementation benefit our skin?

Our skin tone is determined by the amount of melanin pigment produced in our skin. Glutathione interferes with the production of melanin by inhibiting an enzyme called tyrosinase, which catalyses the oxidation of the amino acid tyrosine to form eumelanin (black or brown pigment).

In clinical studies, glutathione intake has been interestingly associated with lightening of skin tone as well as a reduction in the number of ultraviolet spots. As a powerful antioxidant, glutathione also serves to protect our skin from free radical damage that contributes to skin ageing.

But there are so many glutathione supplements in the market. How do I choose between pills, capsules, sublingual tablets or sprays?

We know that glutathione is present in many foods but the main rate-limiting step in glutathione synthesis is the amino acid – cysteine, which is not present in many foods.

So although oral supplementation is good sometimes, because glutathione is mainly proteins, it is good to take a sublingual form that bypasses the digestion so that you get better bioavailability.

Is it advisable to take a multivitamin and a glutathione supplement together since the multivitamin most probably already contains antioxidants?

There is definitely no contraindication to taking a multivitamin and an antioxidant because most pure multivitamin brands just contain the essential multivitamins and most are within the

recommended dietary allowances (RDA).

However, there are times if you just take the recommended RDA, it may not give you the effect that you want. For example, we know that we need high doses of vitamin C for it to be effective for cancer

therapy. If you just take the RDA of vitamin C, there's not going to be any effect!

So similarly, you can take both together as long as you don't exceed the dosages – with the exception of vitamin A, as you need to be more careful in terms of toxicity.

Antioxidants, on their own, are different from multivitamins although there may be some antioxidant properties in the vitamins. Glutathione, by far, is considered the master antioxidant, and is the one that does most of the work in the body in terms of reducing the reactive oxygen species or ROS for short. We know that high ROS levels lead to increased ageing, but what glutathione basically does is it reduces ROS production, so that the anti-ageing effect on the skin is achieved.

So, the more supplements the merrier?

Definitely not. It has to be taken with the knowledge of what is good for you, what should be taken, and what should not be taken.

Currently, what are some non-invasive aesthetic treatments to look younger, and what would you recommend for someone below 30, below 40, and below 50?

In terms of anti-ageing, my clinic focuses on 4 aspects:

The first will be skin rejuvenation or skin revitalisation, which is improving the texture of the skin. Secondly, we want to replace the volume that is lost through ageing. Thirdly, we have skin tightening, where we approach skin laxity by replacing lost volume. Fourthly, we can augment certain facial features to increase attractiveness through non-invasive fillers.

For those below 30, they may only need step 1 and maybe enhancement of facial features. As you go into your 40s, you probably need a combination of step 1, 2 and 3. And if you are approaching 50s, you will definitely need all 4.



290 Orchard Road #09-18/19 Paragon Medical Suites S238859.
T: 67329989. Open Mon-Fri 10AM-1PM and 2PM-7PM. Sat 10AM-2PM.
Closed on Sun & PH. For more information, visit www.nuclinic.com