

A patch a day? Why the vitamin skin patches hyped on social media might not be for you

February 14 2024, by Nial Wheate and Jasmine Lee



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Vitamin patches are [trending on social media](#) and advertised in [posts](#) and podcasts.

With [patches](#) marketed for sleep, detox, immunity and hangovers, they are being talked up as near magical fix-all stickers. Manufacturers claim they are easy-to-use, convenient and ethical when compared with other types of vitamin products. Some even come with [cute floral designs](#).

So do they work, are they safe, and why would you use one instead of just taking a vitamin tablet?

What are vitamin patches?

Vitamin patches are adhesives designed to deliver vitamins or nutrients to your bloodstream directly through the skin.

You peel away the backing, place it on a hairless area of skin where it is less likely to be bumped, and then the patches release their vitamins over a period of 12 to 24 hours.

Two dominant [brands](#) that [market](#) in Australia sell patches that contain various chemical and plant ingredients.

There are patches for [menopause symptoms](#) that claim to include plant extracts of gotu kola, damiana, black cohosh, valerian, skull cap, oat seed and ginger. Patches promising an [energy boost](#) offer caffeine, taurine, gluconolactone, green tea extract and vitamins B3, B5 and B6.

Do they work and are they safe?

In Australia, vitamins are considered pharmaceutical products and are regulated by the Therapeutic Goods Administration. Vitamins are generally approved as listed medicines, meaning the ingredients have been assessed for safety but not for efficacy (whether they do what they promise).

Being a listed medicine also means vitamins are manufactured in a factory with [good manufacturing practices](#), so you can be assured the ingredients listed on the packaging have been sourced properly and are provided at the correct concentration.

However, there are no items listed as vitamin patches on the Australian Register of Therapeutic Goods. This means they currently can not [legally be supplied or purchased in Australia](#). It doesn't matter if they are being sold from a physical store or online within the country. The TGA won't [stop you from buying them from overseas](#), but they advise you not to do so because you can't be assured of quality and safety.

There is also [insufficient evidence](#) that vitamins delivered in this way work. Not all drugs and chemicals can be delivered through the skin. Ordinarily, to be absorbed through the skin a chemical needs to be [lipophilic](#), meaning it likes fats and oils more than water.

So, the form in which the vitamins have been produced and supplied will dictate whether they will get into the skin. For example, a water extract of a plant is less likely to be absorbed when compared with an oil-based extract.

[A small 2019 study](#) of patients at risk of nutrient deficiencies after bariatric (weight-loss) surgery gave some of them a daily multivitamin patch for a year. Those patients had lower blood concentrations of several vitamins and were more likely to have vitamin D deficiency when compared with patients given oral vitamins. The study concluded transdermal vitamin patches were not as effective as oral supplements.

Another issue with vitamin patches is that they contain very low concentrations of ingredients and you may therefore get an ineffective dose, even if all the vitamin in the patch is 100% absorbed through the skin.

For example, one particular patch that is marketed for immunity states that it contains 3 milligrams of vitamin C, which is likely insufficient if taken to supplement a low vitamin C diet. The [health condition](#) called [scurvy](#) is thought to occur when daily vitamin C intake drops lower than [7 milligrams per day](#).

In contrast, a typical vitamin C tablet contains 500 milligrams. The recommended daily intake of vitamin C is around [45 milligrams per day](#)—more if a woman is breastfeeding.

Why not just take a tablet?

When other medicines are supplied in a patch formulation it is usually because a constant supply of the drug is needed in the body; think smoking replacement nicotine patches, [menopausal hormone therapy](#) and some types of [pain relief](#).

There is no reason why you would need the slow release, continuous supply of vitamins that patches promise—but there may be other reasons to choose them over tablets and gummy products.

One selling point used by the marketers is that patches are a "cleaner" form of vitamins. A vitamin in tablet or gummy form will contain inactive ingredients called [excipients](#). Excipients do various tasks in medicines from binding ingredients together, making the medicine look and smell nice, to ensuring drugs don't break down during storage. The presumption is that patches don't contain and release any, or very few, excipients into your body.

But many patches don't list all their ingredients—just the active vitamins—so this claim can not be tested. Some patches may still contain a large number of excipients, some of which may irritate the skin.

For example, one type of [nicotine patch](#) contains 12 excipients including acrylic acid and vinyl acetate, which are chemicals used to help stick the patch to the skin.

A patch may be worth investigating for people who have trouble swallowing or chewing. In this instance it could be [difficult to take a solid tablet](#) or gummy to get your vitamins.

Should you buy them?

As there are no vitamin patches approved by the TGA in Australia, you should not buy them.

If at some point in the future they become listed medicines, it will be important to remember that they may not have been assessed for efficacy.

If you remain curious about vitamin patches, you should discuss them with your doctor or local pharmacist.

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