

San Francisco Chronicle

Your skin's secret (antioxidant) weapon? It starts with a C.

By Janna Mandell | April 6, 2018



If you want all the antioxidant goodness from a potent vitamin C serum but without the solvents and fillers, try clean but uber-effective Marie Veronique C + E+ Ferulic Serum. \$90; www.marieveronique.com.

Skin care can be daunting for consumers. It seems like every day, a new product line or ingredient is touted as the most effective. But one thing as certain as death and taxes in the world of skin care is that topically applied antioxidants like vitamin C help to protect skin from pollution, UV damage and other aggressors while helping to stimulate collagen production.

Though it seems like more products than ever are touting vitamin C, it's actually been available since 1997, when SkinCeuticals, the original topical vitamin C, hit the market. SkinCeuticals' founding scientist, Dr. Sheldon Pinnell, created the brand after he and his research team discovered some mechanisms by which sun exposure causes photoaging. He and his team also described the use of L-ascorbic acid and the combination of other antioxidants to help protect and repair skin from sun damage and oxidative stress.

When vitamin C products first became commercially available, there was a lot of skepticism, remembers San Francisco dermatologist Dr. **William Kwan**.

“We knew that antioxidants helped with sun damage, but we weren’t sure to what extent,” he said. “Then, scientific studies done by Allergan and SkinCeuticals became available, which gave us a firm, science-based foundation regarding the potential benefits of topically applied vitamin C, also known as L-ascorbic acid. I now recommend a variety of antioxidants, including vitamin C, in a daily skin care routine.”

L-ascorbic acid has its share of challenges. As an acid, it can be potentially irritating to sensitive skin, and it’s extremely volatile. “It’s a great challenge for formulators,” said Berkeley formulator and brand founder Marie Veronique. “L-ascorbic acid oxidizes very quickly in liquid. It can become very acidic and irritating to the skin. Basically, its efficacy goes down the longer it’s in liquid.”

Veronique tackles this issue by making her namesake C + E Ferulic Serum an oil-based formula. “By making an oil-based serum, I’m still able to use L-ascorbic acid directly in an anhydrous solution without lowering the PH or risking oxidation.”

Emeryville brand Biossance also uses oil as a carrier for vitamin C with its squalane and vitamin C rose oil. Nancy Leung, head of new product development for Biossance, believes that oil-based serums work at a deeper level in terms of collagen synthesis. “Because it’s more stable, it retains its effectiveness better,” Leung explained. Biossance uses its signature squalane oil as a carrier for its vitamin C serum, which according to Leung provides the skin with protection and emollient properties.

Searches for “Vitamin C serum” rose an eye-popping 3379 percent from November 2016- November 2017, and continue to trend upward, according to visual discovery app Pinterest.

While cult favorite beauty serum Vintner’s Daughter doesn’t specifically have vitamin C in its formula, it contains 14 other potent antioxidants like alpha-turmerone and AR-turmerone (found in turmeric); beta-carotene, a form of vitamin A that helps fight signs of aging and environmental damage; and phenolic acid, a calming, anti-inflammatory antioxidant.

“Antioxidants are super powerful and multicorrectional,” said Vintner’s Daughter founder April Gargiulo of San Francisco. “We all deal with inflammation caused by free radicals, and antioxidants are the No. 1 tool to address it.”

Since antioxidants like vitamin C oxidize rapidly in liquid, Mill Valley’s True Botanicals offers two antioxidant boosters in powder form to ensure efficacy and potency. The brand’s vitamin C booster is vitamin C and ferulic acid, and its newer antioxidant booster is made up of apple peel, quercetin and resveratrol. Hillary Peterson, founder and president of True Botanicals, explained why antioxidants derived from apple peel are so effective.

“Think about an apple hanging on its tree. It’s hammered with sun throughout the day, is exposed to rain and wind, and still manages to protect its fruit from exposure. It has the same effects on our skin — it protects it from environmental damage and prevents oxidative stress.” Peterson recommends those with sensitive skin opt for the line’s gentler antioxidant booster.

Dermatologist Kwan emphasized that although antioxidants like vitamin C are incredibly effective, they should be approached cautiously.

“I always recommend that my patients moisturize 10 minutes after applying, and be careful not to use too many additional exfoliants, alcohol-based toners or retinol/retinoids when trying a new antioxidant,” he said.

Take your vitamins

Skin experts agree that antioxidants like vitamin C are beneficial in protecting your skin from the sun and the environment as well as stimulating collagen production. Here are a few products to consider:

If you have sensitive, reactive skin, be cautious when using any sort of acids, including L-ascorbic acid (vitamin C). Get your daily antioxidant dose by incorporating True Botanicals Antioxidant Booster into your skin care regimen. \$90, <https://truebotanicals.com>.

Dermatologist Dr. William Kwan recommends SkinCeuticals Phloretin CF Gel to his darker-complected clients who, he says, “tend to have oilier skin.” \$165, <https://www.skinceuticals.com>.

For dry, dehydrated skin, try a gentle mega-moisturizing option like the Biossance Squalane + Vitamin C Rose Oil. \$72, <https://biossance.com>.

If your skin is having an identity crisis, giving you acne one day and dryness another, help your skin find its true self by balancing and nourishing it with Vintner’s Daughter Active Botanical Serum. \$185, <https://vintnersdaughter.com>.

If you want all the antioxidant goodness from a potent vitamin C serum but without the solvents and fillers, try clean but uber-effective Marie Veronique C + E+ Ferulic Serum. \$90, www.marieveronique.com.

If fine lines and texture are your biggest skin concerns, Kiehl’s Powerful-Strength Line-Reducing Concentrate boasts 12.5 percent vitamin C and hyaluronic acid, a hydrating powerhouse that holds up to 1,000 times its weight in water. From \$62, www.kiehls.com.

<https://www.sfchronicle.com/style/article/Your-skin-s-secret-antioxidant-weapon-It-12813617.php#photo-15353963>