

Wrinkles and time

Consumers seek younger-looking skin with a variety of creams and lotions. But shielding yourself from the sun offers the best protection.

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Marie Palmieri is not the sort to leave things to chance.

The 22-year-old Suffolk University senior, a public relations major, knows appearances will be key in her chosen profession and has a precise daily routine already in place to make sure she puts her best face forward.

For the Connecticut Anative, that means dabbing an anti-aging cream around her eyes, day and night. She is not sure what's in the concoction she buys at the drug store, but figures it can't hurt.



Kathy Hickey is one of many people who mistakenly link a lotions SPF rating...

"I don't have wrinkles," said Palmieri, who used to work in a sun-tanning salon. "It's more like a precaution."

Apparently Palmieri has plenty of company.

Every day, a new product seems to be hitting the shelves promising to smooth wrinkles and deliver visibly younger-looking skin — a seductive premise, especially as the population ages.

US department store sales of over-the-counter anti-aging face care products rose 12 percent last year, according to The NPD Group, a market research company.

But do the products live up to their promises?

It's hard to know. Anti-aging products sold over the counter are not scrutinized by regulators for effectiveness.

But some of the claims made by manufacturers have captured regulators' attention. Roughly eight dozen companies are listed on the Food and Drug Administration's most recent "Yellow List," updated last month, for imported skin care products that may have "exaggerated anti aging claims." Some well-known names appear on the list, including Chanel, Elizabeth Arden, Estee Lauder, and Revlon.

A primary ingredient in many of these types of products is retinol, a vitamin A compound that is less potent than another vitamin A derivative, tretinoin, which has been approved by the FDA for the treatment of wrinkles. Tretinoin, which has undergone more rigorous studies for effectiveness, is available only by a prescription.

Dermatologists say some over-the-counter creams and gels with retinol may lessen the appearance of fine lines, depending on how long the products are used and how much retinol they contain.

“It may be extremely subtle, but if you do it long enough you do see differences,” said Dr. Barbara Gilchrest, a dermatology professor and clinician at Boston University School of Medicine and Boston Medical Center.

Gilchrest said rigorous studies have shown that patients using the prescription creams containing tretinoin have gotten statistically significant improvements in wrinkling and pigmentation problems, typically brown spots, when they used it for at least six months. The studies have also shown that if patients then stop using the product, about half the benefit is still noticeable after six months

“And if you do it three times a week after using it every day for six months you keep almost all the benefit,” Gilchrest said. “Presumably it’s the same for [non-prescription] retinol, but no one has studied this.”

Tretinoin was first approved by the FDA in the 1970s to treat acne, but doctors soon noticed that their patients’ skin was smoother after treatment and had a noticeable youthful glow. In the late 1980s, University of Michigan researchers made headlines when they published results indicating that patients treated with tretinoin cream had statistically significant improvements in aging skin on their faces compared with those who received a placebo cream.

Today, dermatologists say it’s not unusual to have patients start on the face creams in their teens for acne and just continue on them long-term.

“I view [tretinoin] like vitamins for the skin,” said Dr. Amy Derick, a dermatologist and clinical instructor at Northwestern University in Illinois.

Derick, who uses a tretinoin cream nightly, said the vitamin A compound helps replenish collagen, the basic building block of skin, which gets worn down by age and sun damage. Several dermatologists interviewed for this story said they, too, use a tretinoin cream nightly.

But the prescription products are not cheap — they cost upward of about \$1 a day — and are typically not covered by insurance for treatment of wrinkles. But insurance usually does pay if the diagnosis is acne.

The prescription creams can irritate skin, causing redness and peeling.

One other factor consumers might want to consider is that some dermatologists — but not Derick, nor Gilchrest, the Boston Medical Center physician — accept consulting or speaking fees from the same drug companies whose anti-aging products they prescribe.

On at least one point dermatologists agree: The best way to avoid wrinkles is to protect your skin from the sun, whose ultraviolet rays break down collagen and can cause pre-cancerous spots.

“We see people in their 20s who are using tanning beds, and they have brown spots all over their face,” said Dr. Susan DeCoste, a clinical assistant dermatology professor at Harvard Medical School and director of the dermatology department at South Shore Hospital in Weymouth.

Wearing hats, covering exposed skin, and avoiding the sun during times when it is the strongest, at midday, are some of the best ways to protect against skin damage. Dermatologists also recommend that patients use sunscreen daily, even in winter.

The lotions are required by federal regulators to show how much protection they provide — known as their Sunburn Protection Factor, or SPF. The sun’s radiation contains different types of light, including

ultraviolet B, known as UVB, which is primarily responsible for sunburn, and UVA, which penetrates the skin more deeply. Both types are linked to skin cancers, but current federal regulations regarding SPF's only tell consumers how much protection they are getting from the UVB rays.

Increasingly, product labels say they provide protection against UVA exposure, too, but there is no uniform way for consumers to measure that protection. With "improved" lotions introduced each summer, some touting protection up to 100 SPF, consumers can get confused.

"I've heard [the SPF] has something to do with the time you can stay in the sun," said Palmieri, the fair-skinned, Suffolk University senior who uses a wrinkle cream for her eyes and said she slathers on a lotion with a 100 SPF when she goes to the beach.

Kathy Hickey, a 59-year old Boston grandmother who was caring for her grandson not far from where Palmieri was enjoying the midday sun last Wednesday on Boston Common, said she typically uses a lotion with 30 SPF. She said she, too, thought the SPF rating referred to the increased amount of time a user could be in the sun without burning.

"It's protecting you from skin damage from ultraviolet rays," she said. "Hopefully the ones that cause skin cancer."

But SPF values do not indicate the length of time that consumers can stay in the sun, according to the FDA. Nor do lotions with an SPF of 30, for instance, provide twice the protection of one with a 15 SPF.

Dermatologists interviewed for this article said that is perhaps one of the most confusing concepts for their patients.

Gilchrest, the Boston Medical Center dermatologist, said the SPF calculation includes a measure of how much ultraviolet light is getting past the lotion. So a 15 SPF would mean 1/15 of the light is penetrating the sunscreen. That translates to a 93 percent protection level.

But a 30 SPF would only confer slightly more protection, roughly a 97 percent level.

Four years ago, the FDA proposed new rules that would make sunscreen labeling easier for consumers to understand, and would also require manufacturers to reveal how well their products protect against both types of ultraviolet light.

Those rules are still pending.

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Retinoic acid vs. Retinol

Prescription medications to treat wrinkles contain a vitamin A compound called all-trans retinoic acid — often referred to as retin A by physicians, although this is also a trade name of one medication. The generic is known as tretinoin.

Over-the-counter wrinkle creams also contain a vitamin A derivative that is less potent; this substance is called Retinol.

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http://articles.boston.com/2011-05-02/yourtown/29496519_1_anti-aging-tretinoin-retinol