Youthful Skin in a Bottle?
The Truth About Do-It-Yourself Microdermabrasion Kits

Sooner or later, most everyone looks for some type of “fountain of youth”—a cream or a cleanser that will help them look and feel younger. With all of the do-it-yourself microdermabrasion kits on the market, obtaining a youthful glow is as simple as purchasing a kit from the local drugstore and following the directions. Or is it?
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Home Kits vs. a Visit to the Dermatologist
Numerous companies are selling what they claim are the “best” kits available and promising methods to easily and inexpensively obtain “smooth, supple skin” at home.

But Cleveland Clinic dermatologist and Mohs surgeon, Rebecca Tung, M.D., warns that people should be aware that these home kits might not deliver the results they’re expecting.

“Results from microdermabrasion performed in a dermatologist’s office compared to using a kit at home are two entirely different things,” Dr. Tung says. “Basically, these kits are creams containing semi-fine crystalline material. People can apply the product to the skin’s surface in a rubbing fashion, much like they would use a buff puff or coarse sponge.”

She continues, “Some of the kits even have a sponge that vibrates, which attempts to mimic true microdermabrasion. But even with these tools, home kits can’t treat acne, enlarged pores, blotchiness, minor scarring or fine lines and wrinkles.”

Microdermabrasion is designed to revitalize and smooth the skin through controlled “polishing” and physical exfoliation of damaged skin, allowing smoother, younger-looking skin to develop. Microdermabrasion does not break the integrity of the skin and is considered a “no-downtime” procedure. The treatment, which usually is completed in approximately 30 minutes, typically is performed on the face and neck, but can be useful on any part of the body. Patients can return to their normal routines immediately after the treatment, and they can apply makeup afterward if desired.

What Happens During Microdermabrasion
During the process, the physician uses a small, hand-held device to stream tiny crystals across the skin, while the instrument’s vacuum component suctions the crystals back into the machine, along with the dead, loosened, outer layer of skin. The new outer layer of skin will be faintly pink after the procedure, but the color fades in a few hours.

“There’s no harm in trying the home remedies first; they’re really quite safe because all they can do is slough away dead skin cells,” Dr. Tung explains. “People can use these kits for the short-term effect of adding polish and shine to the face. However, for more effective long-term rejuvenation, a person may want to consider a microdermabrasion series under the care of a dermatologist. Studies have shown that both the crystal and suctioning components in microdermabrasion create healing within the skin. These changes are seen under the microscope as new collagen formation and as more consistent pigmentation, and are seen in the mirror as a more radiant and blemish-free complexion.”

According to Dr. Tung, the home exfoliation kits could be useful in maintaining rejuvenation following microdermabrasion treatments. “We usually recommend a series of four to six microdermabrasion treatments, approximately two to four weeks apart. Once the series is completed, patients can use the home kits—according to the package instructions—along with other prescribed topical products,” she says.

Microdermabrasion is effective on all skin types and colors. In addition to mild surface rejuvenation, microdermabrasion is also a course of therapy for people suffering from mild acne, fine acne scarring, mild sun damage or hyperpigmentation—such as brown patches on the skin due to sun exposure or hormones.

If you are interested in learning more about microdermabrasion, schedule an appointment with one of our dermatologists by calling 216.839.3870 (Cleveland Clinic Beachwood Family Health and Surgery Center) or 216.444.5725 (Cleveland Clinic main campus).

Zap Those Zits:
Cleveland Clinic Dermatologists Use Latest Laser Technology for Treatment of Acne

No matter what terminology you use—pimples, whiteheads, blackheads, blemishes or zits—the clinical name is the same: acne. This inflammatory skin disease can cause significant emotional distress and can render even the most confident person self-conscious.

According to James Libecco, M.D., Clinical Dermatologist and Director of Phototherapy at Cleveland Clinic, there is no clear cause for this condition that affects nearly 85 percent of all people. “Almost
Autoimmune mucocutaneous blistering diseases (AMBD) are rare diseases that affect the skin and mucous membranes. These autoimmune diseases occur when the immune system produces an abnormal protein that circulates in the blood and binds to various components in the skin and mucous membranes, resulting in blisters.

**Bullous pemphigoid**

Bullous pemphigoid is the most common AMBD, with approximately 2,100 new cases diagnosed in the United States each year. This accounts for more than one-half of newly diagnosed cases of AMBD, says David Hamrock, M.D., Associate Staff Member, Cleveland Clinic Department of Dermatology.

According to Dr. Hamrock, bullous pemphigoid usually appears in people between the ages of 65 and 75, typically beginning as hives or itchy welts, usually on the legs, but then becoming generalized as the disease progresses. "When the disease is in this stage," he says, "it's usually misdiagnosed as hives and treated with antihistamines. The diagnosis on the skin."

Once blisters develop, the appropriate tests—usually skin biopsies and blood tests—are performed to establish the diagnosis. Patients typically are treated with medications that suppress the immune system (immunosuppressants), such as Prednisone, or with immune-modifying medications, such as Dapsone.

**Pemphigus vulgaris**

The second most common AMBD is pemphigus vulgaris, which, unlike bullous pemphigoid, typically begins with painful lesions in the mouth. "This condition usually develops in people between the ages of 65 and 75, with roughly 750 cases being diagnosed in the United States each year," Dr. Hamrock explains.

Once blisters develop, the appropriate tests—usually skin biopsies and blood tests—are performed to establish the diagnosis. Patients typically are treated with medications that suppress the immune system (immunosuppressants), such as Prednisone, or with immune-modifying medications, such as Dapsone.

Both AMBDs can be treated with a variety of medications, but for the most part, the cause is not known. Dr. Hamrock stresses that AMBDs are neither contagious nor inherited. "The chance of anyone getting bullous pemphigoid is very low. However, family members of patients with an AMBD are more likely to develop other autoimmune diseases, such as hypothyroidism, multiple sclerosis, lupus or rheumatoid arthritis," he says.

These AMBDs rarely, if ever, go untreated, as the skin lesions would grow far too large, and the lesions in the mouth would become far too painful. Because of the complexity in the diagnosis and treatment of these diseases, a dermatologist should be consulted if unexplained blisters form on the skin or if painful lesions form in the mouth.

If you are interested in learning more about treatment options for AMBD, schedule an appointment with one of our dermatologists by calling 216.444.5725.

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**Blistering Diseases 101**

**AMBD Defined**

Autoimmune mucocutaneous blistering diseases (AMBD) are rare diseases that affect the skin and mucous membranes. These autoimmune diseases occur when the immune system produces an abnormal protein that circulates in the blood and binds to various components in the skin and mucous membranes, resulting in blisters.

Also unlike bullous pemphigoid, which has no known ethnic predilection, pemphigus vulgaris frequently occurs in Jewish people and people of Mediterranean descent. "Although anyone can develop pemphigus vulgaris, genetics appear to play much more of a role because there are certain genetic markers that are found more often in this condition," he says.

"Patients with pemphigus vulgaris may be misdiagnosed for years as having thrush or herpes," Dr. Hamrock says. "These patients often have gingivitis and return to their dentist's office continually for deep cleanings, which usually makes things worse. Pemphigus vulgaris often isn't diagnosed until blisters develop on the skin—usually on the scalp, face, chest, upper back and upper arms. At this point, skin biopsies and blood tests are performed to confirm the diagnosis."

Pemphigus vulgaris is treated similarly to bullous pemphigoid—with immunosuppressive agents—but the medications are needed in higher doses.

Certain medications, and perhaps infections, can trigger specific AMBDs, but for the most part, the cause is not known. Dr. Hamrock stresses that AMBDs are neither contagious nor inherited. "The chance that a specific AMBD will be passed on to a person's children is close to zero. However, family members of patients with an AMBD are more likely to develop other autoimmune diseases, such as hypothyroidism, multiple sclerosis, lupus or rheumatoid arthritis," he says.

These AMBDs rarely, if ever, go untreated, as the skin lesions would grow far too large, and the lesions in the mouth would become far too painful. Because of the complexity in the diagnosis and treatment of these diseases, a dermatologist should be consulted if unexplained blisters form on the skin or if painful lesions form in the mouth.

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**Acne**

Everyone gets acne to some degree, and we don't really know why. We do know that it's not caused by diet, stress or poor hygiene. It is primarily a disease of the sebaceous (oil) glands and hair follicles that leads to blocked pores, inflammation and what we see as acne.

Acne can occur at any age. Although most cases occur around the beginning of puberty—typically in the teenage years—most people experience new onset regularly throughout life.

So what should you do if you're one of the millions of Americans who suffers from acne? The good news is that mild lesions potentially can be controlled with over-the-counter washes or creams containing salicylic acid or benzoyl peroxide.

However, a dermatologist should be consulted whenever there is a progression of lesions. "In order to avoid scarring, it's important to treat acne early. So anytime a person begins to see more lesions, lesions that don't respond to over-the-counter treatments, or when there's any evidence of scarring, it's time to contact a dermatologist," Dr. Libecco says. "Above all, we want to avoid scarring, because it can be permanent."

**Smoothbeam Laser Therapy**

In addition to first-line therapies such as prescription-strength washes, topical creams or gels, oral antibiotics and facial peels, dermatologists at Cleveland Clinic have added a new therapy to their arsenal to fight the war against acne: Smoothbeam laser therapy.
The best ways to fend off the aging and cancer-causing effects of the sun's rays include avoiding tanning booths, avoiding sun exposure between the hours of 10 a.m. and 4 p.m. and wearing sun-protective clothing. Another very important weapon in combating the harmful effects of the sun is sunscreen.

**Levels of Sun Protection**

The purpose of sunscreen—sold in the form of lotions, creams, oils and waxes in most drugstores—is to protect the skin by either absorbing harmful sun rays or deflecting them. These harmful rays are known as ultraviolet A (UVA) and ultraviolet B (UVB) rays. UVB rays are responsible for causing most sunburns. The best sunscreen products are “broad-spectrum,” meaning they protect against both UVA and UVB rays.

The biggest difference among sunscreen products is the level of protection they offer from the sun. No sunscreen is 100-percent effective, says Allison Vidimos, R.Ph., M.D., chairman of Cleveland Clinic’s Dermatology Department, but a sunscreen with an SPF (sun protection factor) of 15 can give you 93-percent protection from the sun. A sunscreen with an SPF of 30 can give you 97-percent protection and SPF 45 gives you the highest amount of protection—around 98 percent. There are also sunscreens of SPF 60. The difference in the level of protection between SPF 45 and SPF 60, however, is negligible according to Dr. Vidimos, except for people with lupus or other conditions that require them to stay completely out of the sun.

Dr. Vidimos says that products labeled as “sunblocks” generally contain the best protective components—titanium or zinc oxide—which reflect the sun’s rays. Be sure to use a product that is at least SPF 15; use SPF 30 or 45 if you are going somewhere especially sunny.

“The most important thing,” she says, “is to purchase a sunscreen that you’ll use. Make sure you like the feel, the scent—or lack of scent—and the type of sunscreen, be it a lotion, cream, spray or gel.”

**Using Sunscreen the Optimal Way**

Of course, once you have sunscreen, the only way to ensure it is effective is to make sure you are using it properly.

First, make sure the product has not expired. “If there is no expiration date on the bottle and you still have a partially used bottle from the previous year, throw it out and purchase a new bottle,” Dr. Vidimos says.

Second, make sure that you apply it 30 minutes before going out in the sun. This is what most people fail to do, she says, and it’s really important because sunscreen takes about 20 minutes to soak into the skin.

When applying sunscreen, be sure to use a full ounce (the equivalent of six teaspoons) and apply it to all exposed skin, including your ears. And be sure to reapply it every two to three hours while you are outside—even waterproof sunscreen, which can rub off. A lip balm containing sunscreen should also be used.

“A bottle of sunscreen should literally last only a few weekends if you are active in the summer,” Dr. Vidimos says.

**More Sun Protection Tips**

- If you tend to always burn in the sun, use an SPF of 30 or higher.
- Keep babies 6 months or younger out of the sun, and start sunblock/sunscreen application on them at 6 months old.
- Use a facial moisturizer with sun protection every day of the year.
- Don’t forget to protect your lips. Use a lip balm with an SPF of 15.
- Wear sunglasses that are UVB-protective. Overexposing your eyes to the sun could cause cataracts.
- Remember that you can still absorb damaging sun rays (UVB) through glass, such as a car window.
- Keep in mind that self-tanners are a safe alternative to the sun or tanning booths but they do not provide protection from the sun.
- Remember that skin cancer is the most common type of cancer and the greatest risk factor for developing skin cancer is overexposure to ultraviolet light (from the sun or tanning booths).
Department of Dermatology

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Clinical Appointments 216.444.5725  Surgical Appointments 216.444.5724
Zap Those Zits
(continued from inside)

The Smoothbeam laser directs a beam of infrared light toward any area affected by acne. It treats existing lesions as well as the skin that is not yet affected in order to clear the area and, hopefully, prevent future outbreaks.

Dermatologists focus the light within the skin, targeting the water around the sebaceous glands, which are the source of acne. “Right now, the leading belief is that if the water around the oil glands is heated, those glands will undergo a structural change, making them less prone to becoming blocked,” Dr. Libecoco says.

In October 2002, the Smoothbeam laser became the first laser to receive approval by the U.S. Food and Drug Administration for the treatment of acne. Since then, dermatologists have been successfully using the therapy on all areas of the body where acne appears—particularly on the face, back and chest.

Smoothbeam therapy generally is well-tolerated, takes only five to 15 minutes and has few—if any—side effects. Even better news: Because the laser attacks acne at its source—the overactive sebaceous glands—the acne may not reappear for as long as six months.

Because acne is a slow-to-respond disease, a series of three to five treatments may be needed, usually three to five weeks apart. Results typically can be realized in just a few weeks.

If you are interested in learning more about treatment options for acne, schedule an appointment with one of our dermatologists by calling 216.444.5725.