



Recognizing the mind-skin connection

Some skin conditions have a psychological dimension that may need to be addressed, too.

If you've ever blushed from embarrassment, you know that your skin can reflect what you're feeling inside. It makes sense, then, that emotional trouble might show up as skin trouble. Although cause and effect can be difficult to pin down, considerable data suggest that at least in some people, stress and other psychological factors can activate or worsen certain skin conditions. The bond between skin and mind has deep roots, going back at least as far as skin-to-skin contact between newborn and mother, and is beyond the scope of this article. But communication through the skin is thought by many to be central to the development of feelings about the self and the world. Little wonder that our emotions might affect our skin — and that the relationship is likely to be complex.

Interest in this relationship has led to the development of a field called psychodermatology, or psychocutaneous medicine. According to clinical psychologist and psychodermatology expert Dr. Ted A. Grossbart, at Boston's Beth Israel Deaconess Medical Center, people who visit clinicians for a skin condition often have a related psychological problem that can affect the way they respond to medical treatment.

Many skin problems clear up or improve with standard therapies, including antibiotics, anti-inflammatory drugs, and topical medications. The aim of psychodermatology is not to substitute psychotherapy for medicine, but rather to recognize that emotional issues may also be involved, especially when a skin condition resists conventional treatment. It's important to evaluate and treat a skin problem medically before looking into its psychological aspects. But sometimes, a drug or other medical approach that doesn't work on its own becomes more effective when combined with psychological strategies.

Psychodermatology is not an established medical specialty in the United States, and this country has few dermatology-psychiatry "liaison" clinics — although the number has grown since the first was established at Stanford University in 1972. But a number of dermatologists are seeking to improve their mental health skills, and some mental health professionals, like Dr. Grossbart, specialize in helping people explore and manage the emotional aspects of their skin problems. Perhaps not surprisingly, mind-body techniques such as self-hypnosis and relaxation are often part of the psychodermatological approach.

The skin we're in

The skin is the body's largest organ. It's a protective wrapper that defends the body against injury and infection and modulates environmental influences such as ultraviolet light, heat and cold, and air pollution. It's also involved in a range of complex biological processes. The skin contains sweat glands and blood vessels (which help regulate body temperature), cells that use the sun to

manufacture vitamin D, nerve endings that are in constant contact with the brain, and an array of immune system cells that help ward off invaders such as bacteria and viruses.

The brain and nervous system influence the skin's immune cells through various receptors and chemical messengers — neuropeptides, for example. Scientists are investigating these and other substances in the skin that may respond to psychological stress. They have already found that certain types of stress can interfere with the immune system, affecting the skin's capacity to heal. One study found that surgical patients who felt less stress in the month before surgery had higher levels of IL-1 (an immune system chemical that promotes healing), less postoperative pain, and a shorter recovery. Research also suggests that chronic negative stress can disrupt the function of the skin's permeability barrier, which normally keeps out harmful substances and prevents the loss of fluid from skin cell layers. This kind of disruption is thought to be a major factor in many skin diseases.

Types of mind-skin connections

Psychodermatologic disorders usually fall into three broad and sometimes overlapping categories:

- *Psychophysiological*. These are skin problems that have a physiological basis but can be exacerbated by stress and other emotional factors. They include, among others, acne, alopecia areata (hair loss), various types of eczema or dermatitis (skin inflammation), herpes (oral and genital), hyperhidrosis (profuse sweating), pruritis (itching), psoriasis (skin scaling and redness), rosacea (skin flushing and eruption), urticaria (hives), and warts. Some, such as profuse sweating and itching, can be symptoms of other medical conditions or reactions to medications — which is why a workup by a medical clinician and standard dermatological treatment are crucial before considering psychological factors. "Rosacea responds quickly to topical medications and will not respond to psychotherapy or one's attempts to manage stress," explains dermatologist Dr. Suzanne M. Olbricht.
- *Secondary psychiatric*. A cosmetically disfiguring or potentially socially stigmatizing skin disorder such as severe acne, psoriasis, vitiligo (the loss of pigmentation in the skin), or genital herpes can produce feelings of shame or humiliation, erode self-esteem, cause depression and anxiety, and in general lower quality of life. There is much evidence of a correlation between skin disorders and depressive symptoms. One study, for instance, found that patients with severe psoriasis and acne were twice as likely to be suicidal as general medical patients. However, in such cases, it can be hard to distinguish cause from effect.
- *Primary psychiatric*. Some skin difficulties are symptoms of a psychiatric disorder, such as chronic hair-pulling (trichotillomania), the belief that the body is infested with organisms (delusional parasitosis), preoccupation with and distress about an imagined or minor defect (body dysmorphic disorder), and self-inflicted damage to the skin (dermatitis artefacta). Such illnesses require psychotherapy and sometimes psychiatric medications. But a dermatologist, who may be the first health professional the individual sees, can treat damage to the skin or scalp.

Helping the mind help the skin

Not everyone responds emotionally through the skin, nor do all people react the same way to having a skin problem. But evidence suggests that in some people, psychological issues often intersect with skin physiology, and treating both may offer the best chance for improvement.

When feelings of anxiety or depression intrude, medications such as antidepressants may be recommended. Many nonpharmacologic interventions, including mind-body techniques, have shown promise, though most studies are small and uncontrolled. Some approaches have effects that are not disease-specific but general — reducing stress and anxiety, improving the patient's sense of control, and enhancing immune function. Clinicians may use one or more of the following:

- *Hypnosis.* The hypnotic state, involving focused concentration or awareness, can affect many physiological functions, including blood flow, pain sensation, and immune response. A trained hypnotist is not necessarily required; many people can successfully practice self-hypnosis through relaxation, meditation, or focused breathing techniques (see below). In this state, the mind has a heightened capacity to affect autonomic functions (those we have little conscious control over, such as heart rate). A therapist using the technique called guided imagery may ask the patient to imagine having healthy skin or picture immune cells on the march. In small studies, hypnosis has been shown to decrease stress and anxiety; reduce pain and inflammation; control sweating and itching; speed healing; and limit behaviors such as scratching, picking, or hair pulling. Belgian researchers reported in the August 2006 issue of the *Journal of the American Academy of Dermatology* that 67% of patients with significant hair loss (alopecia) who underwent hypnosis (including self-hypnosis) had total or partial hair regrowth during treatment, although some of them lost the hair again during the four-year follow-up period. In some studies, hypnotherapy, especially combined with behavioral and relaxation techniques, has helped reduce itching and scratching in people with atopic dermatitis. Hypnosis has been studied extensively for treating warts. In one controlled trial, which compared hypnosis to no treatment at all, 53% of the hypnotized patients — but none of the unhypnotized patients — lost at least some of their warts. Another trial compared hypnotic suggestion (of the warts healing and shrinking) to salicylic acid (the standard treatment for warts), placebo salicylic acid, and no treatment. The hypnotized participants lost significantly more warts than subjects in the other three groups.
- *Relaxation and meditation.* The relaxation response (a technique pioneered in Western medicine by Dr. Herbert Benson at Harvard Medical School), progressive muscle relaxation, focused breathing, and mindfulness meditation are well-established antidotes to the harmful effects of the body's response to stress. The mechanisms by which these practices (and hypnosis) fight disease or promote healing aren't fully understood, but they're one focus of a discipline called psychoneuroimmunology, which studies interactions among the brain, the immune system, and behavior. Relaxation techniques have been used along with conventional medical care in treating acne, eczema, hives, hyperhidrosis, and psoriasis. One small study of psoriasis patients found that those who listened to mindfulness meditation tapes while undergoing standard phototherapy (psoralen plus ultraviolet A, or PUVA) healed faster than those who had the light treatment alone.

- *Psychotherapy*. Many psychotherapeutic approaches can help in treating difficult skin disorders. For example, in cognitive behavioral therapy, the individual and her therapist can work to change behavior that damages the skin, as well as thought patterns that cause distress or hamper medical treatment. Supportive counseling can offer reassurance and help an individual better understand her skin ailment. Talk therapy may be particularly helpful with skin problems that for one reason or another have resisted every conceivable medical fix; an underlying psychological difficulty may be "speaking through the skin," and exploring that possibility may be good for both skin and mind.

Selected Resources

Skin Deep: A Mind/Body program for healthy skin, by Ted A. Grossbart and Carl Sherman, Health Press, 1992. www.grossbart.com

Stress Management: Techniques for preventing and easing stress, Herbert Benson, Medical Editor, Harvard Health Publications, 2006. www.health.harvard.edu/SC

Bottom line

At least for some people with difficult skin conditions, psychological approaches — including mind-body techniques — appear to be helpful. But more research is clearly needed to evaluate the effectiveness of these interventions and to find out who is most likely to benefit. Moreover, unless the cause is obviously psychiatric (as with chronic hair-pulling), skin and scalp problems should always be evaluated and treated medically before turning to psychological factors or treatments.

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