



ELLE BEAUTY INVESTIGATION

argue, fatigue, weight gain, and susceptibility to disease. Supporting this notion, an array of diets and topical products has sprung up, promising to restore that mysterious and oh-so-delicate balance.

Externally, pH plays a fundamental role in the skin's barrier, called the acid mantle, which is formed by secretions from sweat and sebaceous glands as well as the breakdown of fatty acids by beneficial microflora. This barrier functions like an invisible veil that keeps the good stuff (lipids, moisture) in and the bad stuff (pollution, bacteria) out. As the name indicates, the acid mantle is at its strongest—and therefore most naturally balanced—when the skin is slightly acidic, with an optimum pH of about 5.5. "You need some acidity to inhibit bacterial growth on the skin," says dermatologist (and director of the New York Institute of Aesthetic Dermatology and Laser Surgery) Howard Sobel, MD, "which is why skin that's too alkaline may, for example, be more susceptible to acne."

Alkalinity might also play a role in aging. A study published in *British Journal of Dermatology* by Greg Hillebrand, PhD, of P&G Beauty Science showed that women with an alkaline stratum corneum (the skin's outermost layer) developed more fine lines and crow's feet than those with acidic skin over an eight-year period. This might be in part

BALANCING ACT

When it comes to looking and feeling truly young and healthy, perhaps the scale we should be worried about tipping has nothing to do with weight. By April Long

Most of us devote a lot of energy to the pursuit of balance: attempting to equalize time spent at work versus having a life; being present for families, friends, and bosses; trying not to fall over mid-side-plank in yoga class. When it comes to our skin, however, it's probably not something we pay a lot of attention to. For example, how many of us know what "pH Balanced"—a marketing slogan skin care

companies have used for decades—really means? The definition itself doesn't help much: pH stands for "potential of hydrogen"—that is, the measure of hydrogen ion concentration in a substance. The scale, devised by a Danish chemist in the early 1900s, ranges from 0, which is the most highly acidic (e.g., battery acid), to 14, which is the most alkaline (e.g., drain cleaner). Seven, the pH of water, is neutral. The human body maintains such a specific balance between acidity and alkalinity that an off-kilter pH might be connected to a host of unhealthy woes, ranging from dry, rapidly aging skin to acne, inflammation, and, some



GREAT EQUALIZERS

Biologique Recherche Lotion P50W speeds exfoliation while balancing the skin's pH

to tell when it's out of whack. "Skin with a balanced pH appears healthier, is slightly moist, looks plumper, and has a healthy glow," Sobel says, whereas skin that's too alkaline "may be acne-prone, dry, or excessively oily." In other words, if you have a persistent skin problem, from zits to dermatitis, an upset pH could be to blame.

The chief culprit in raising alkalinity sounds perfectly innocent: washing skin with soap and water. "Soaps are very alkaline," Sobel says, "so using them can increase skin alkalinity above its natural levels." Traditional bars can have a pH of up