

Beware of sugar's effects on the skin - You'll be glad you did!

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Dr. Lu-Jean Feng is a plastic surgeon, but the first thing she talks to prospective patients about is their diet. She says that if you eat unhealthy, your skin -- especially your face -- will show it. Sugar, especially, is very damaging, says Feng, and she practices what she preaches. "I really don't eat sugar," except in what's found naturally in fruit or dairy. "I tell people, I can do a face-lift on you, but if you keep eating badly, your face will show it," she says. "What's the point in that?" The Pepper Pike physician shows them a group of test tubes, each of which is filled with various heights of sugar, depending on the food to which it correlates. A small chocolate chip cookie? The test tube is about $\frac{1}{4}$ full of sugar. And yogurt with fruit in it? It has more sugar than ice cream. What's so bad about sugar? Besides the obvious weight correlation, it takes a toll on skin, the largest organ in the body. It doesn't take a doctor to notice a dramatic improvement in the quality of facial skin once a person reduces the amount of refined sugar in her diet, Feng says.

Dr. Fredric Brandt agrees. In his new book, "10 Minutes in 10 Years," the dermatologist (known to some as Madonna's skin guy of choice) discusses how sugar ages skin before its time. Eating sugar -- especially refined sugar -- causes a phenomenon called glycation, a process in which sugar molecules in the cells stick to protein fibers, binding them together and causing the fibers to become dry and brittle. "In other words, sugar breaks down the collagen and binds to the elastin. As a result, skin loses its elasticity and becomes more vulnerable to wrinkling, sagging and UV damage," Brandt writes.

Glycation: From Wikipedia Glycation (sometimes called non-enzymatic glycosylation) is the result of a sugar molecule, such as fructose or glucose, bonding to a protein or lipid molecule without the controlling action of an enzyme. All blood sugars are reducing molecules. Glycation may occur either inside the body (endogenous glycation) or outside the body (exogenous glycation). Enzyme-controlled addition of sugars to protein or lipid molecules is termed glycosylation; glycation is a haphazard process that impairs the functioning of biomolecules, while glycosylation occurs at defined sites on the target molecule and is required in order for the molecule to function. Much of the early laboratory research work on fructose glycations used inaccurate assay techniques that led to drastic underestimation of the importance of fructose in glycation (Ahmed & Furth 1992).