



[Fact or Fiction](#) - May 31, 2007

Fact or Fiction?: Fatty Foods Equal Pizza Face

Consumed fat does not reappear on your face, but it may trigger a hormonal response that leads to pimples

By Cynthia Graber

A teenage boy scarfs down an entire bucket of fried chicken. The next morning he wakes up with red bumps roiling over his skin. Is there a connection? Did eating all that greasy food give him a bad case of the zits? The simple answer for the past 30 years has been a resolute *no*. But today, new research suggests the answer is more complicated: maybe.

The fat you put in your mouth does not reappear on your skin. When you eat, the food goes through the digestive system, which breaks down that fried chicken into nutrients that can be easily absorbed and utilized. Bile acids dissolve fat in water in the intestinal cavity. Enzymes break the larger fat molecules into smaller ones. Cell walls absorb these molecules, which are then transported to the veins in the chest and fat storage areas around the body.

Pimples have no connection to these fat deposits. Acne forms because the ducts that connect the sebaceous glands in the skin, which dispense oil to keep skin soft and healthy, are overactive and produce an excess of oil and cells. These build up in the duct and clog pores with a firm, oil-soaked plug. Bacteria and yeast thrive in this environment. The body's immune system responds, inflaming the area and turning it embarrassingly red.

Testosterone is the antagonist in the acne story, because it dials up the activity of both the sebaceous glands and the lining cells. When girls go through what's known as menarche, or puberty, the surge of hormones in their bodies includes testosterone. For boys, the testosterone concentration is obviously higher; that is why teen boys tend to have worse acne, which is spread more generally over their bodies. Acne usually dissipates when these hormone surges calm down (and, along with them, the teenagers in question). Acne persists in some individuals, either when women menstruate—a hormonal change—or because certain people have a genetic predisposition to acne.

Diet, it turns out, influences these hormones. Dermatologist William Danby collected extensive dietary information on his patients from 1973 to 1980 as part of an interest in potential food links to pimple outbreaks. "It became obvious over the years that dairy consumers had greater acne," Danby says. He also found a paper published as far back as 1966 that tied acne to dairy consumption based on interviews with 1,000 patients.

Danby advises all those afflicted with the red bumps to swear off milk products for six months. The results, he says, support the link. One man, the 61-year-old son of an ice cream maker with horrible lifelong acne (and a lifelong addiction to ice cream), finally gave up dairy, and "in a year he was clear of all fresh lesions," Danby says.

Danby also worked with researchers at the Harvard School of Public Health on a retrospective epidemiological study of more than 47,000 nurses, published in the *Journal of the American Academy of Dermatology (JAAD)* in 2005, along with another on their daughters that found a significant connection between increased dairy and acne. Another study on the nurses' sons is awaiting publication. Though the method of action has not yet been confirmed, Danby notes that milk from pregnant cows contains hormones that oil glands can turn into dihydrotestosterone, testosterone's most potent form.



An Australian article currently in press, also to appear in *JAAD*, demonstrates that high-glycemic diets, rife with white flour and processed carbohydrates, appear to lead to higher acne, although the authors say further research is needed to replicate the results. They believe the method of action may be linked to resulting insulin spikes, already associated with increased levels of male hormones in both sexes.

Dermatologist Valori Treloar, co-author of *The Clear Skin Diet* due to be published this August, believes the types of fats we eat affect acne. So-called "bad" fats, frequently disparaged for a variety of ills, have been linked in heart studies to increased inflammation—the culprit behind the bright red bumps. Good fats, omega-3 fatty acids, are known for anti-inflammatory properties. Treloar also points to dietary and health studies showing that populations that consume traditional diets high in good fats and low in bad fats have significantly lower incidences of acne. This specific food connection, however, has not been confirmed in controlled studies.

Many dermatologists still say that there's no known link between food and acne, but usually add that if a patient notices a trigger, food or otherwise, they should avoid it. This is slowly changing: According to dermatologist Wendy Roberts, "the younger generation [of dermatologists] says, 'sure, we see people who have a dietary response... But we can't say what's causing it.'"

So did fried chicken trigger the boy's breakout? Not directly—unless he smeared it on his face. But new studies present intriguing hints that his food may have played an indirect role.

Further Reading

[The Orgasmic Mind: The Neurological Roots of Sexual Pleasure](#)

[Sweeter Than Cocaine](#)

[New Weapons Against Cocaine Addiction](#)

[Postpartum Depression Epidemic Affects More than Just Mom](#)

[Self-Experimenters: To Purge Binges, Alcoholic Cardiologist Self-Prescribed an Experimental Drug](#)

[News Bytes of the Week—Genetics of Childhood Trauma](#)

[Getting Duped: How the Media Messes with Your Mind](#)

[What Are We Thinking When We \(Try to\) Solve Problems?](#)