

DIET AND ACNE:

Trends come and go, sometimes even in Medicine. For the past thirty years, Dermatologists have been trained to deny an association between diet and acne, even though patients swear that chocolate or french fries or ketchup or ice cream caused their breakout. We'd attribute it to stress, hormones, genetics, sweating, oily skin care products, or just bad luck. Most previous studies exploring a causative link did not show a strong scientifically-based association, but as we look back at these older studies, there are faulty concepts that doctors are still trying to put into perspective. Newer studies, though still not perfect, are now supporting a possible contributory role of diet in acne.

Acne has a multifactorial origin – genetics, microanatomy of the skin, hormones, stress, certain medications, and now diet may contribute to that untimely and unsightly zit, regardless of age. As Dermatologists, we have noticed an increase of acne prevalence beyond adolescence into the 3rd, 4th, 5th and even 6th decades of life, and we do not have an exact reason for this. One hypothesis can be related to the change of the modern diet, which often includes high carbohydrate, high fat, high sodium, processed, low fiber foods. But, again, our food consumption cannot be the only factor, otherwise we'd all be one large pimple during the holidays(!)

In particular, two possible dietary culprits now include foods with a high glycemic load and milk products.

Glycemic load assesses the potential of a food to increase blood sugar or glucose. The glycemic load factors in carbohydrate quality and quantity. A high glycemic load diet increases the hormone insulin and an analog of it called insulin-like growth factor 1 (IGF-1). IGF-1, in lay terms, causes our pores to clog. It may also increase sebum, or oil, production. IGF-1 and androgens ("male" hormones found in both genders) can act synergistically to worsen acne.

Women who have polycystic ovarian syndrome (PCOS), an endocrine disorder where androgen and insulin and IGF-1 levels are elevated, can often have some combination of acne, irregular menses, hair loss on the scalp, excess facial and body hair, infertility, insulin-resistance, and obesity. We have noticed that medications that lower insulin and IGF-1 levels in these patients improve acne as well.

Next, milk's exact role in the development of acne has long been debated. Two recent studies have found a relationship with acne, from either whole or skim milk. The thinking is that milk may directly increase IGF-1 levels. In addition, milk may contain excess hormones from the cow that affect acne. There are estrogens ("female" hormones), androgens, progesterones, other bioactive molecules, or even iodine in milk that could contribute to acne flares.

Well, we are still at a standstill in our debates. While practicality and real life experience suggest a positive correlation with high sugar or carbohydrate foods, we still cannot gather enough credible scientific evidence to absolutely prove a direct relationship. There

are flaws with old and current studies however, either in design or number of patients, and further more rigorous studies need to be done.

Those that can follow a “low carb” diet and avoid milk may see improvement, all other factors being equal, but there are many other confounding factors that can also contribute to acne. In those women with PCOS, dietary changes may play more of a role, and these patients should follow a low glycemic index diet to decrease insulin resistance for improvement in overall general health and as a bonus, in acne.

For those who swear by a food trigger, from chocolate to fried foods to citrus, by all means avoid that trigger as long as it still allows a good dietary practice. Diet is only part of the puzzle that we need to piece together for improving our skin appearance.

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