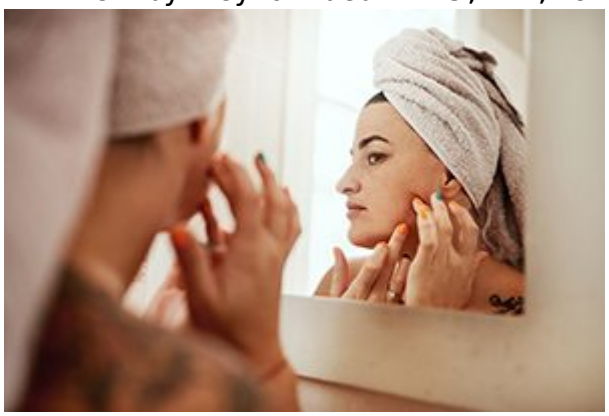
Leyla Weighs In: A novel study of New Yorkers with acne

written by Leyla Muedin MS, RD, CDN | February 21, 2020



While epidemiologic studies report a low incidence of acne in non-developed nations, clinicians and researchers suggest that environmental factors such as diet play a role in the development of acne. To this end, examination of the Glycemic Index and Glycemic Load and its impacts on acne pathogenesis are examined in a novel study of adult New Yorkers.

This is a cross-sectional study where participants had a blood draw to measure the biological factors associated with breakouts including glucose, insulin, insulin-like growth factor-1 (IGF-1) and sex hormone binding globulin (SHBG). Additional assessments included body composition and a questionnaire to evaluate food-aggravated acne and quality of life with breakouts.

Of the 64 subjects in this study, 32 had no acne and 32 had moderate to severe acne.

Researchers found that those with moderate to severe acne consumed greater total carbohydrates and of higher glycemic loads than those without acne. The participants with acne also had higher insulin readings, higher IGF-1, greater insulin resistance and lower SHBG compared to those subjects without acne.

Needless to say, those with moderate to severe acne reported a lower quality of life. They did however, believe their acne was influenced by their diet.

This study suggests a relationship between carbohydrate consumption, including Glycemic Load and acne. Indeed, both high GI and GL are implicated in the etiology of acne due to chronic diet-induced hyperinsulinemia spurring subsequent hormonal abnormalities. These changes cause breakouts due to increased androgens, unregulated tissue growth and sebum production in skin.

Stay tuned for more next week on the myriad causes of acne.

To your health!

Leyla Muedin, MS, RD, CDN

J. Burris, W. Rietkerk, J. Shikany, et al. Differences in dietary glycemic load and hormones in New York City adults with no and moderate/severe acne. *J Academy Nutr and Dietetics.* 2017;117(9):1375-82.