



## YES, MILK INTAKE INCREASES ODDS TO DEVELOP ACNE VULGARIS!

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### Dairy intake and acne development: A meta-analysis of observational studies.

Aghasi M<sup>1</sup>, Golzarand M<sup>2</sup>, Shab-Bidar S<sup>1</sup>, Aminianfar A<sup>1</sup>, Omidian M<sup>3</sup>, Taheri F<sup>1</sup>.

#### Author information

- 1 Department of Community Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran.
- 2 Department of Clinical Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran. Electronic address: mahdieh\_golzarand@yahoo.com.
- 3 Department of Clinical Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran.

#### Abstract

**BACKGROUND & AIMS:** In the past, some observational studies have been carried out on the relationship between milk and dairy intake and risk of acne occurrence; however, their results were conflicting. This study is a meta-analysis and dose-response analysis designed to evaluate the relationship between milk and dairy products and acne development.

**MATERIALS & METHODS:** Data of the study were searched and collected from Pubmed/Medline, Scopus, Web of Science, and Embase databases. Study design, sex, age, exposure (i.e. dairy, milk, yogurt, cheese), dietary assessment method, acne ascertainment, total sample size, number of total subjects and cases in each category of exposure intake, OR, RR and PR with 95% CI in each category of exposure intake and adjusted variables were extracted.

**RESULTS:** Highest compared with lowest category of dairy (OR: 2.61, 95% CI: 1.20 to 5.67), total milk (OR: 1.48, 95% CI: 1.31 to 1.66), low-fat milk (OR: 1.25, 95% CI: 1.10 to 1.43) and skim milk (OR: 1.82, 95% CI: 1.34 to 2.47) intake significantly was associated with the presence of acne. Results of dose-response analysis revealed a significant linear relationship between dairy, whole milk and skim milk and risk of acne and nonlinear association between dairy, milk, low-fat milk and skim milk intake and acne.

**CONCLUSION:** In this meta-analysis we found a positive relationship between dairy, total milk, whole milk, low-fat and skim milk consumption and acne occurrence. In contrary, no significant association between yogurt/cheese and acne development was observed.

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**KEYWORDS:** Acne; Dairy; Meta-analysis; Milk; Yogurt

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### RESULTS:

*Highest compared with lowest category of dairy (OR: 2.61, 95% CI: 1.20 to 5.67), total milk (OR: 1.48, 95% CI: 1.31 to 1.66), low-fat milk (OR: 1.25, 95% CI: 1.10 to 1.43) and skim milk (OR: 1.82, 95% CI: 1.34 to 2.47) intake significantly was associated with the presence of acne.*

*Results of dose-response analysis revealed a significant linear relationship between dairy, whole milk and skim milk and risk of acne and non-linear association between dairy, milk, low-fat milk and skim milk intake and acne."*