

Treatment of acne using oral antibiotics associated with reporting symptoms of sore throat

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Taking oral antibiotics for treatment of acne appears to be associated with reporting symptoms of pharyngitis (sore throat), according to a report published Online First by *Archives of Dermatology*.

"Many inconsistent concerns have been voiced about the safety of long-term use of antibiotics," the authors write as background information in the study. "Because of the high prevalence of [acne](#) and the frequent use of antibiotics to control acne, individuals undergoing therapy to treat their acne are an ideal group in which to study the effects of long-term [antibiotic use](#)."

David J. Margolis, M.D., Ph.D., and colleagues with the Perelman School of Medicine at the University of Pennsylvania, Philadelphia, conducted two concurrent studies (a cross-sectional study and a [longitudinal study](#)) to examine the association between antibiotics used to treat acne and pharyngitis. The authors also examined the association between oral antibiotics and colonization rates of group A streptococcus (GAS; form bacteria responsible for most cases of streptococcal illness) as previous research has shown a link between oral antibiotics and higher rates of GAS. Participants in both studies included college students, who were asked to fill out a self-administered survey form, were swabbed for culture and had a visual examination for acne.

In the cross-sectional study, the authors found that 10 of 15 students receiving oral antibiotics for acne reported an episode of pharyngitis in the past 30 days, and 47 of 130 students not receiving oral antibiotics, but who had acne, reported an episode of pharyngitis in the previous month. Combining all 251 students not receiving oral antibiotics, 82 (32.7 percent) reported an episode of pharyngitis in the previous 30 days. Three of 145 students with acne

(2.1 percent) were found to be colonized with GAS, however none of the three was receiving oral antibiotics.

The longitudinal study included 358 female and 218 male participants; 36 (6.2 percent) received oral antibiotics for acne during the study and 96 (16.6 percent) received topical antibiotics for acne. The authors found that the use of oral antibiotics was strongly associated with a health care evaluation for pharyngitis. Of students receiving oral antibiotic treatment, 11.3 percent reported pharyngitis. Conversely, pharyngitis was reported by 3.3 percent of students not receiving oral antibiotics. Additionally, no association with pharyngitis was noted for those who used a topical antibiotic for acne, and the authors found that less than 1 percent of participants were colonized by GAS, indicating that it is not associated with pharyngitis.

"Our studies show that the odds of developing self-reported pharyngitis is more than three times baseline in patients receiving oral antibiotics for acne vs. the odds for those who are not receiving [oral antibiotics](#)," the authors conclude. "The true clinical importance of these findings needs to be evaluated further by prospective studies."

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