

## Antibiotic Prophylaxis in Dentistry: A Review and Practical Recommendations.

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### ABSTRACT

**Background.** The American Heart Association, or AHA, and the American Dental Association recently changed their recommended protocols for antibiotic prophylaxis against bacterial endocarditis. A new recommendation also has been issued by the ADA and the American Academy of Orthopaedic Surgeons, or AAOS, against routine antibiotic prophylaxis in patients with prosthetic joint replacements. These changes reflect increasing scientific evidence and professional experience in opposition to widespread use of antibiotic prophylaxis in these specific situations and others faced in dentistry.

**Methods.** The authors reviewed the medical and dental literature for scientific evidence regarding the use of antibiotics to prevent local and systemic infections associated with dental treatment. Situations commonly considered by dentists for potential use of prophylactic antibiotics were reviewed to determine current evidence with regard to use of antimicrobial agents. This included prevention of distant spread of oral organisms to susceptible sites elsewhere in the body and the reduction of local infections associated with oral procedures.

**Results.** There are relatively few situations in which antibiotic prophylaxis is indicated. Aside from the clearly defined instances of endocarditis and late prosthetic joint infections, there is no consensus among experts on the need for prophylaxis. There is wide variation in recommended protocols, but little scientific basis for the recommendations. The emerging trend seems to be to avoid the prophylactic use of antibiotics in conjunction with dental treatment unless there is a clear indication.

**Conclusions.** Aside from the specific situations described, there is little or no scientific basis for the use of antibiotic prophylaxis in dentistry. The risk of inappropriate use of antibiotics and widespread antibiotic resistance appear to be far more important than any possible perceived benefit.

**Clinical Implications.** Dentists are wise to use antibiotic prophylaxis in only those specific situations in which there is a valid scientific basis for it. Whenever possible, dentists should follow the standard protocols recommended by the ADA, AHA or AAOS.