

What is antibiotic prophylaxis?



Antibiotics usually are used to treat bacterial infections. Sometimes, though, dentists or physicians suggest taking antibiotics before treatment to decrease the chance of infection. This is called *antibiotic prophylaxis*.

During some dental treatments, bacteria from the mouth enter the bloodstream. In most people, the immune system kills these bacteria. There is concern, though, that in some patients, bacteria from the mouth can travel through the bloodstream and cause an infection somewhere else in the body. Antibiotic prophylaxis may offer these people extra protection.¹

WHO MIGHT BENEFIT FROM ANTIBIOTIC PROPHYLAXIS?

People with certain heart conditions may be at increased risk of developing infective endocarditis (IE)—an infection of the lining of the heart or heart valves. To protect against IE, or limit its effects should the infection develop, the American Heart Association suggests that antibiotic prophylaxis be considered for people who have¹

- an artificial heart valve or who have had a heart valve repaired with a prosthetic material;
- a history of IE;
- a heart transplant that develops a valve problem;
- certain heart conditions that are congenital (present from birth), including
 - unrepaired or incompletely repaired cyanotic congenital heart disease, including those with palliative shunts and conduits;
 - a completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure;
 - any repaired congenital heart disease with residual defect at the site or adjacent to the site of a prosthetic patch or prosthetic device.

WHAT ABOUT PEOPLE WHO HAVE HAD HIP OR KNEE REPLACEMENT SURGERY?

The American Dental Association does not routinely recommend antibiotic prophylaxis for people who have had a hip, knee, or other joint replaced.² People who have had joint replacement surgery and have a weakened immune system—meaning that they are less able to fight infections—should talk to their dentist and their orthopedic surgeon to see if antibiotic prophylaxis is recommended. Conditions such as diabetes, rheumatoid arthritis, or cancer and medications such as steroids

and those used in chemotherapy can affect your ability to fight infections.

WHY IS ANTIBIOTIC PROPHYLAXIS NOT USED FOR EVERY PATIENT?

Antibiotic prophylaxis is not right for everyone and—like any medicine—antibiotics should only be used when the potential benefits outweigh the risks of taking them. For example, consider that infections after dental treatment are not common and that, in some people, antibiotics can have side effects. Side effects associated with taking antibiotics include stomach upset, diarrhea, and allergic reactions, some of which can be life threatening. In addition, using antibiotics too often or incorrectly can allow bacteria to become resistant to those medications. Therefore, it is important to use antibiotic prophylaxis in only those people at greatest risk of developing an infection after dental treatment.

WHAT CAN YOU DO?

Tell your dentist about any changes in your health since your last visit and make sure he or she knows about all medications you are taking. With this information in hand, your dentist can talk to you and your physician about whether you could benefit from antibiotic prophylaxis.

Good home care is key to good dental health. Be sure to brush your teeth twice a day with a fluoride toothpaste, clean between your teeth once a day, eat a balanced diet, and visit your dentist regularly. ■

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“For the Patient” provides general information on dental treatments. It is designed to prompt discussion between dentist and patient about treatment options and does not substitute for the dentist’s professional assessment based on the individual patient’s needs and desires.

1. Wilson W, Taubert KA, Gewitz M, et al. Prevention of infective endocarditis: guidelines from the American Heart Association: a guideline from the American Heart Association Rheumatic Fever, Endocarditis and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young, and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and the Quality of Care and Outcomes Research Interdisciplinary Working Group. *JADA*. 2008;139(suppl):3S-24S.

2. Sollecito TP, Abt E, Lockhart PB, et al. The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints: evidence-based clinical practice guideline for dental practitioners—a report of the American Dental Association Council on Scientific Affairs. *JADA*. 2015;146(1):11-16.e8.