

Antibiotics and our patients

Questions that come up frequently from our patients revolve around antibiotic indications and usage. Although these are medications we prescribe on a daily basis, it's easy to forget how they work, why they work and when we need to use them. We will address some of the questions our patients commonly ask regarding heart murmurs, artificial joints, infected teeth and usage after extractions.

My patient forgot to premedicate. What do I do?

From the American Heart Association (AHA) guidelines, the antibiotic should be given in a single dose 30 to 60 minutes before treatment. The report adds that if the antibiotic *inadvertently* is not administered, the dosage may be given up to 2 hours after the procedure. However, it is important to note that the recommendation is to give the antibiotics 30-60 minutes before treatment.

Antibiotics

A quick refresher about antibiotics

Most odontogenic infections are caused by gram negative rods and gram positive cocci. When secondary anatomic spaces, including the sinus, are infected, common bacteria include H. Influenza and S. Aureus.

Penicillin

Historically, penicillin has been a wonderful antibiotic to treat odontogenic infections. Penicillin is a Beta Lactam antibiotic that inhibits bacterial cell wall synthesis. It generally has good coverage against gram negative, gram positive and anaerobic

organisms. Amoxicillin is also an extremely effective antibiotic used to treat common odontogenic bacteria, but Amoxicillin has slightly better GI absorption. As bacteria have evolved, many have developed Beta Lactamase capability, which makes these bacteria resistant to the Penicillin. The addition of Clavulanic Acid to Amoxicillin (Augmentin) provides the antibiotic with Beta Lactamase Inhibition. This improves the spectrum of the antibiotic and provides additional coverage against H. Influenzae and S. Aureus (not MRSA).

Clindamycin

Clindamycin is commonly used in patients with hypersensitivity to penicillin. Clindamycin is a lincosamide antibiotic and inhibits bacterial protein synthesis. Clindamycin is used to treat infections caused by aerobic bacteria and more effectively, treats anaerobic infections. GI upset is a common side effect and pseudomembranous colitis is a well-documented complication associated with Clindamycin, Penicillin and Amoxicillin use.

Joint Replacements

In 2012 the American Dental Association (ADA) and American Association of Orthopaedic Surgeons (AAOS) combined efforts to define parameters for artificial joints premedication protocols. Their study's evidence showed that it was not necessary for patients with previous joint replacements and orthopaedic hardware to

receive antibiotics prior to a dental visit. In our practice, if the orthopaedic surgeon deems it necessary for our mutual patient to premedicate, we don't resist, although we do document our reasoning.





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Antibiotic Prophylaxis and our Patients:

At Falls Oral Surgery, we practice using evidence based standards of care. When we are faced with a decision to premedicate a patient, we use the guidelines recommended by the American Dental Association (ADA), American Heart Association (AHA) and American Association of Orthopaedic Surgeons (AAOS).

Why Falls Oral Surgery?

We recognize that dentists have choices when choosing an oral surgery provider. We are forever grateful and appreciative of the ongoing support you provide to our office. In return, rest assured that your patients are being cared for as you would want your family to be cared for. Our office has 3 fully equipped OR's capable of providing hospital-style general anesthesia (and 5 additional procedure rooms), something unparalleled by anyone else in the area. Both Drs. Hoffman and Barnes are Board Certified by the American Board of Oral and Maxillofacial Surgery. This makes us the only multi-doctor practice in northern Summit County with those credentials. If there are things we can do to improve your patient's care or your satisfaction, please never hesitate to call on us. It is a true joy and honor for us to care for your patients. We thank you for your trust and friendship.



Bacterial Endocarditis:

Current guidelines conclude that the practice of antibiotic prophylaxis for every patient with a valvular disorder undergoing dental procedures is neither safe nor effective.

The following conditions absolutely dictate a premedication:

- ALL artificial heart valves
- Previous history of endocarditis
- Congenital Cyanotic Heart Disease
- Cardiac Transplant WITH valvulopathy

The following conditions DO NOT require antibiotic prophylaxis according to the AHA:

- Patients with history of Coronary Arterial Bypass Graft (CABG)
- Mitral Valve Prolapse with or without regurgitation
- Greenfield Filters/IVC filters (Inferior Vena Cava)
- History of rheumatic fever
- Coronary artery stents



 American Heart Association

AAOS
AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS