

## Antibiotic Pre-Medication Guidelines for Dental Procedures (For Prevention of Infective Endocarditis)

Guidelines from the American Heart Association – Published April 2007

### Introduction

On April 19, 2007 the American Heart Association released new guidelines for heart patients regarding the use of antibiotics before dental procedures. After an extensive review of scientific literature from 1950 to 2006, the AHA's Endocarditis Committee and experts found that only an exceedingly small number of cases (if any) of infective endocarditis (IE), also known as bacterial endocarditis (BE), might be prevented by antibiotic prophylaxis prior to a dental procedure.

Based upon these findings, the current practice of giving patients antibiotics prior to a dental procedure is no longer recommended **EXCEPT** for patients with the highest risk of adverse outcomes resulting from BE (see the table below).

The following are the new guidelines as published in the American Heart Association's article and the new AHA's Prevention of Bacterial Endocarditis wallet card.

### New Guidelines

#### Patients No Longer Needing To Take Antibiotic Pre-Medication (Most Patients)

- Mitral valve prolapse
- Rheumatic heart disease
- Bicuspid valve disease
- Calcified aortic stenosis
- Congenital heart conditions such as:
  - a. Hypertrophic cardiomyopathy
  - b. Ventricular septal defect
  - c. Atrial septal defect

#### Patients Still Recommended To Take Antibiotic Pre-Medication (Few Patients)

- Prosthetic cardiac valve
- Previous endocarditis
- Congenital heart disease only in the following categories:
  - a. Unrepaired cyanotic congenital heart disease, including those with palliative shunts and conduits
  - b. Completely repaired congenital heart disease with prosthetic material or device, whether placed by surgery or catheter intervention, during the first six months after the procedure
  - c. Repaired congenital heart disease with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)
- Cardiac transplantation recipients with cardiac valvular disease

### In Conclusion

For most heart patients, this means you will no longer be asked to pre-medicate prior to dental treatment. For more information on this subject, you can go to the American Heart Association at

[www.americanheart.org/presenter.jhtml?identifier=11086](http://www.americanheart.org/presenter.jhtml?identifier=11086)

If a patient has been prescribed dental pre-medication by a medical doctor, he/she may want to consult his/her physician regarding the new guidelines and ask if pre-medication is still needed.

### Compliments of

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# Antibiotic Pre-Medication Regimens for Dental Procedures (For Prevention of Infective Endocarditis)

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Situation	Agent	Regimen – Single Dose 30-60 minutes before procedure	
		Adults	Children
Oral	Amoxicillin	2 gm	50 mg/kg
Unable to take oral medication	Ampicillin OR	2 g IM or IV*	50 mg/kg IM or IV
	Cefazolin or ceftriaxone	1 g IM or IV	50 mg/kg IM or IV
Allergic to penicillins or Ampicillin – Oral regimen	Cephalexin***† OR	2 g	50 mg/kg
	Clindamycin OR	600 mg	20 mg/kg
	Azithromycin or clarithromycin	500 mg	15 mg/kg
Allergic to penicillins or ampicillin and unable to take oral medication	Cefazolin or ceftriaxone† OR	1 g IM or IV	50 mg/kg IM or IV
	Clindamycin	600 mg IM or IV	20 mg/kg IM or IV

\*IM – intramuscular; IV – intravenous.

\*\*Or other first or second generation oral cephalosporin in equivalent adult or pediatric dosage.

†Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin

## Joint Replacement Regimen:

Feb. 2009 - The American Academy of Orthopaedic Surgeons information statement: Given the potential adverse outcomes and cost of treating an infected joint replacement, the AAOS recommends that clinicians consider antibiotic prophylaxis for all total joint replacement patients prior to any invasive procedure that may cause bacteremia. They recommend the use of Cephalexin, Cephadrine or Amoxicillin 2 gm PO 1 hour before treatment. They do not include an antibiotic for those who are allergic to penicillins, but in 2003 they recommended Clindamycin 600 mg PO 1 hour pretreatment.

The ADA and infectious disease specialists do not concur with this recommendation from AAOS.

Antibiotic prophylaxis is NOT indicated for patients with pins, plates or screws outside outside a joint capsule.

## Table 4: Dental Procedures for Which Endocarditis Prophylaxis is Recommended If Pre-Medication is Indicated

**All dental procedures** that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa.

The following procedures and events **DO NOT need antibiotic prophylaxis:**

- Routine anesthetic injections through noninfected tissue
- Taking dental radiographs
- Placement of removable prosthodontic or orthodontic appliances
- Adjustment of orthodontic appliances
- Placement of orthodontic brackets
- Shedding of deciduous teeth
- Bleeding from trauma to the lips or oral mucosa