

American Heart Association Guidelines for the Prevention of Infective Endocarditis (IE), 2008

Primary Reasons for Revision of the IE Prophylaxis Guidelines

- IE is much more likely to result from frequent exposure to random bacteremias associated with daily activities than from bacteremia caused by a dental, gastrointestinal (GI) or genitourinary (GU) tract procedure.
- Prophylaxis may prevent an exceedingly small number of cases of IE, if any, in individuals who undergo a dental, GI or GU tract procedure.
- The risk of antibiotic-associated adverse events exceeds the benefit, if any, from prophylactic antibiotic therapy.
- Maintenance of optimal oral health and hygiene may reduce the incidence of bacteremia from daily activities and is more important than prophylactic antibiotics for a dental procedure to reduce the risk of IE.

Cardiac Conditions Associated with the Highest Risk of Adverse Outcome from Endocarditis for which Prophylaxis for Dental Procedures is Reasonable

- Prosthetic Cardiac Valve or Prosthetic Material used for Cardiac Valve Repair
- History of IE
- Congenital Heart Disease (CHD)*
 - Unrepaired cyanotic CHD, including palliative shunts and conduits
 - Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first six months after the procedure[†]
 - Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)
- Cardiac Transplantation Recipients who Develop Cardiac Valvulopathy

* Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD.

[†] Prophylaxis is reasonable because endothelialization of prosthetic material occurs within six months after the procedure.

Dental Procedures for which Endocarditis Prophylaxis is Reasonable*

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

*Applies to patients who have cardiac conditions that are associated with the highest risk of adverse outcome from endocarditis (see previous box).

† The following procedures and events do not need 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 primary teeth, and bleeding from trauma to the lips or oral mucosa.

Regimens for a Dental Procedure

Situation	Agent	Regimen: Single dose 30-60 minutes before procedure	
		Adults	Children
Oral	Amoxicillin	2 g	50 mg/kg
Unable to take oral medication	Ampicillin	2 g IM* or IV†	50 mg/kg IM or IV
	-----OR----- Cefazolin or Ceftriaxone	1 g IM or IV	
Allergic to penicillins or ampicillin—oral	Cephalexin‡§	2 g	50 mg/kg
	-----OR----- Clindamycin	600 mg	20 mg/kg
	-----OR----- Azithromycin or Clarithromycin	500 mg	15 mg/kg
Allergic to penicillins or ampicillin—unable to take oral medication	Cefazolin or Ceftriaxone§	1 g IM or IV	50 mg/kg IM or IV
	-----OR----- 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 a person with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin.

The complete guidelines as they relate to dentistry are published in The Journal of the American Dental Association 2008;139(1):Special Supplement:3S-24S.

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