The American Heart Association recently revised its guidelines on antibiotic prophylaxis. 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 bacterial endocarditis. In response, the American Association of Endodontists has prepared a reference guide for applying the revisions to dental/endodontic procedures and patient care.

The new AHA guidelines for antibiotic prophylaxis are based on a comprehensive review of published studies that suggests infective endocarditis is more likely to occur as a result of daily activities such as brushing and flossing than from a dental procedure. For patients at risk of bacterial endocarditis, the AHA emphasizes the importance of good oral health and regular dental visits.

The new recommendations apply to many dental procedures, including teeth cleaning and extractions. Patients with congenital heart disease can have complicated circumstances. If there is any question at all as to the category that best fits their needs, these patients should check with their cardiologists before treatment.

**BACTERIAL ENDOCARDITIS**

*Endocarditis Prophyaxis Recommended*

Preventive antibiotics prior to a dental procedure are advised for patients with:

- Artificial heart valves
- Infective endocarditis history
- Certain specific, serious congenital (present from birth) heart conditions, including:
  - Unrepaired or incompletely repaired cyanotic congenital heart disease, as well as those with 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
  - Any repaired congenital heart defect with residual defect at the site or adjacent to the site of a prosthetic patch or a prosthetic device
- Cardiac transplant that develops a problem in a heart valve

*Endocarditis Prophyaxis Not Recommended*

Patients who have taken prophylactic antibiotics routinely in the past but no longer need them include people with:

- Mitral valve prolapse
- Rheumatic heart disease
- Bicuspid valve disease
- Calcified aortic stenosis
- Congenital heart conditions, such as ventricular septal defect, atrial septal defect and hypertrophic cardiomyopathy
### Regimens for a Dental Procedure

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>AGENT</th>
<th>ADULTS</th>
<th>CHILDREN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Amoxicillin</td>
<td>2 g</td>
<td>50 mg/kg</td>
</tr>
<tr>
<td>Unable to take oral medication</td>
<td>Ampicillin OR Cefazolin or ceftriaxone</td>
<td>2 g IM* or IV+</td>
<td>50 mg/kg IM or IV</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin—oral</td>
<td>Cephalexin OR Clindamycin OR Azithromycin or clarithromycin</td>
<td>2 g</td>
<td>50 mg/kg</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin and unable to take oral medication</td>
<td>Cefazolin or ceftriaxone OR Clindamycin</td>
<td>1 g IM or IV</td>
<td>50 mg/kg IM or IV</td>
</tr>
</tbody>
</table>

* IM: Intramuscular + IV: Intravenous
φ Or other first- or second-generation oral cephalosporin in equivalent adult or pediatric dosage.
δ Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin.

*1American Dental Association Division of Legal Affairs. An Updated Legal Perspective of Antibiotic Prophylaxis. The Journal of the American Dental Association. 2008; 139:10-21S.*

### Patients With Joint Replacement

There have been no changes to the American Academy of Orthopaedic Surgeons recommendations. Please visit [www.aaos.org](http://www.aaos.org) for more information.

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