



Abx prophylaxis for dental procedures are generally not needed for patients with prosthetic joint implants unless there are complicating factors.

Abx prophylaxis for dental procedures is recommended by the AHA/ACC for Infective Endocarditis prophylaxis in those at high risk such as patients with a prosthetic valve (mechanical or bio), other prosthetic material in the heart, hx of IE, unrepaired cyanotic congenital heart disease, or cardiac transplant.

NO for Joints

Abx prophylaxis for dental procedures are generally not needed for patients with prosthetic joint implants unless there are complicating factors.

The 2014 Panel judged that the current best evidence failed to demonstrate an association between dental procedures and prosthetic joint infection (PJI).....

The 2014 Panel made the following clinical recommendation: In general, for patients with prosthetic joint implants, prophylactic antibiotics are not recommended prior to dental procedures to prevent prosthetic joint infection. The practitioner and patient should consider possible clinical circumstances that may suggest the presence of a significant medical risk in providing dental care without antibiotic prophylaxis, as well as the known risks of frequent or widespread antibiotic use. As part of the evidence-based approach to care, this clinical recommendation should be integrated with the practitioner's professional judgment and the patient's needs and preferences.

***[The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints](#)
- [The Journal of the American Dental Association \(ada.org\)](#)***

The authors identified no significant association between IDPs and LPJIs and no effect of AP cover of IDPs in reducing the risk of LPJIs.

In the absence of benefit, the continued use of AP poses an unnecessary risk to patients from adverse drug reactions and to society from the potential of AP to promote development of antibiotic resistance. Dental AP use to prevent



LPJIs should, therefore, cease.

[Quantifying the risk of prosthetic joint infections after invasive dental procedures and the effect of antibiotic prophylaxis – The Journal of the American Dental Association \(ada.org\)](#)

YES for High Risk Cardiac Conditions

Abx prophylaxis for dental procedures is recommended by the AHA/ACC for Infective Endocarditis prophylaxis in **those at high risk such as patients with a prosthetic valve (mechanical or bio), other prosthetic material in the heart, hx of IE, unrepaired cyanotic congenital heart disease, or cardiac transplant.**

[2020 ACC/AHA Guideline for the Management of Patients With Valvular Heart Disease: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation \(ahajournals.org\)](#)

The risk of developing IE is highest in patients with a prosthetic valve, prior IE, or congenital heart disease with residual flow disturbances.³ IE has been reported to occur after transcatheter aortic valve implantation (TAVI) at rates equal to or exceeding those associated with surgical aortic valve replacement (SAVR) and is associated with a high 1-year mortality rate of 75%.^{23,24} IE may also occur after valve repair with prosthetic material, which results in high in-hospital and 1-year mortality rates, even with surgical intervention.^{25,26} IE appears to be more common in heart transplant recipients than in the general population, according to limited data.³



Recommendations for IE Prophylaxis		
Referenced studies that support the recommendations are summarized in Online Data Supplement 1.		
COR	LOE	Recommendations
2a	C-LD	<p>1. Antibiotic prophylaxis is reasonable before dental procedures that involve manipulation of gingival tissue, manipulation of the periapical region of teeth, or perforation of the oral mucosa in patients with VHD who have any of the following¹⁻⁹:</p> <ul style="list-style-type: none">a. Prosthetic cardiac valves, including transcatheter-implanted prostheses and homografts.b. Prosthetic material used for cardiac valve repair, such as annuloplasty rings, chords, or clips.c. Previous IE.d. Unrepaired cyanotic congenital heart disease or repaired congenital heart disease, with residual shunts or valvular regurgitation at the site of or adjacent to the site of a prosthetic patch or prosthetic device.e. Cardiac transplant with valve regurgitation attributable to a structurally abnormal valve.
3: No Benefit	B-NR	<p>2. In patients with VHD who are at high risk of IE, antibiotic prophylaxis is not recommended for nondental procedures (eg, TEE, esophagogastroduodenoscopy, colonoscopy, or cystoscopy) in the absence of active infection.^{10,11}</p>



Approach to antibiotic prophylaxis against infective endocarditis for patients undergoing dental procedures

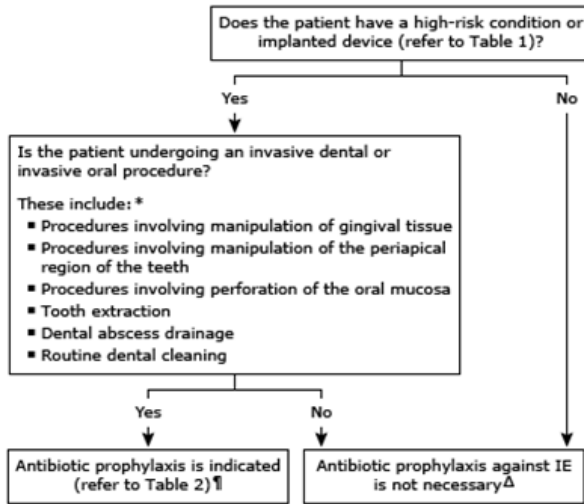


Table 1: High-risk conditions and implanted devices

Prosthetic heart valve or prosthetic valve repair material, including: <ul style="list-style-type: none"> Prosthetic valve (surgical or transcatheter) Valve repair with prosthetic material (including annuloplasty rings or clips)
Durable mechanical circulatory support device (ventricular assist device or artificial heart)
Previous, relapsed, or recurrent IE
Certain types of congenital heart disease, including: <ul style="list-style-type: none"> Unrepaired cyanotic congenital heart disease (patients with palliative shunts and conduits are still considered unrepaired) Completely repaired congenital heart defect with prosthetic material or device, during the first 6 months after surgical or transcatheter placement Repaired congenital heart disease with residual defect at the site or adjacent to the site of a prosthetic patch or prosthetic device Prosthetic pulmonary artery valve or conduit (surgical or transcatheter; eg, Melody valve and Contegra conduit)
Cardiac transplant recipients with cardiac valvulopathy

Table 2: Oral antibiotic regimens for prevention of endocarditis prior to dental procedures[¶]

	Agent	Adult dose	Pediatric dose (not to exceed adult dose)
Preferred agent	Amoxicillin	2 g	50 mg/kg
Options for patients allergic to penicillins (eg, ampicillin)	Cephalexin [◇]	2 g	50 mg/kg
	OR		
	Azithromycin or clarithromycin	500 mg	15 mg/kg
	OR		
	Doxycycline	100 mg	<45 kg: 2.2 mg/kg ≥45 kg: 100 mg

IE: infective endocarditis.

* The following dental procedures and events do not require prophylaxis: anesthetic injections through noninfected tissue, taking dental radiographs, placement or adjustment of removable prosthodontic or orthodontic appliances, placement of orthodontic brackets, shedding of primary teeth, and bleeding from trauma to lips or oral mucosa.

¶ Antibiotics should be administered as a single oral dose 30 to 60 minutes prior to the procedure. If inadvertently not given prior to the procedure, antibiotics may be administered up to 2 hours after the procedure. For guidance on parenteral regimens (eg, for patients unable to take oral/enteral agents), refer to separate UpToDate content.

Δ Refer to UpToDate content on other measures to reduce the risk of IE.

◇ Other first- or second-generation oral cephalosporins are acceptable. Cephalosporins should not be used for patients with history of immediate allergy (eg, anaphylaxis, angioedema, urticaria, hypotension) or any severe reaction to a penicillin antibiotic.



References

- [The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints - The Journal of the American Dental Association \(ada.org\)](https://www.ada.org)



- [Quantifying the risk of prosthetic joint infections after invasive dental procedures and the effect of antibiotic prophylaxis - The Journal of the American Dental Association \(ada.org\)](#)
- [2020 ACC/AHA Guideline for the Management of Patients With Valvular Heart Disease: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation \(ahajournals.org\)](#)
- [Prevention of endocarditis: Antibiotic prophylaxis and other measures - UpToDate](#)
- [Prosthetic valve endocarditis: Epidemiology, clinical manifestations, and diagnosis - UpToDate](#)
- [Antibiotic Prophylaxis Prior to Dental Procedures | American Dental Association \(ada.org\)](#)
- [aae_antibiotic-prophylaxis-2017update.pdf - The American Association of Endodontists](#)