

2007 AHA Guidelines for the Prevention of Infective Endocarditis

Previously, the 1997 guidelines recommended prophylactic antibiotics for patients in high-risk and moderate-risk categories. The 2007 guidelines now recommend that only patients in this high-risk category require coverage.

Endocarditis Prophylaxis Recommended	
2007 Guidelines	1997 Guidelines
Prosthetic heart valves	Prosthetic heart valves, including bioprosthetic and homograft valves
Previous infective endocarditis	Previous bacterial endocarditis
Cardiac transplantation recipients who develop cardiac valvulopathy	
Serious congenital heart conditions (present from birth) including <ul style="list-style-type: none"> • unrepaired or incompletely repaired cyanotic congenital heart disease, including those with palliative shunts and conduits* <ul style="list-style-type: none"> • Tetralogy of Fallot • Transposition of the great vessels • Ebstein's anomaly • Tricuspid atresia • Total anomalous pulmonary venous return • Truncus arteriosus • Hypoplastic left heart syndrome • Critical pulmonary valvular stenosis • Interrupted aortic arch • Pulmonary valve atresia • Coarctation of the aorta** • Pulmonic stenosis** • completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or catheter intervention, during the first 6 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 epithelialization) 	High Risk Complex cyanotic congenital heart disease <ul style="list-style-type: none"> • Single ventricular states • Transposition of the great arteries • Tetralogy of Fallot
NOT REQUIRED (only high risk complex cyanotic heart diseases now require coverage; moderate risk cyanotic heart diseases are now deemed to not require prophylactic antibiotic coverage)	Moderate Risk uncorrected cyanotic congenital heart disease <ul style="list-style-type: none"> • Patent ductus arteriosus • Ventricular septal defect • Primum atrial septal defect • Coarctation of the aorta** • Bicuspid aortic valve
NOT REQUIRED	Calcified aortic stenosis
NOT REQUIRED	Acquired valvular dysfunction (Rheumatic heart disease)
NOT REQUIRED	Hypertrophic cardiomyopathy
NOT REQUIRED	Mitral valve prolapse with regurgitation and/or thickened leaflets

* consultation with a paediatric cardiologist is recommended to confirm the diagnosis of the CHD and associated risk for developing endocarditis to determine the need for prophylactic antibiotics.

** there are disagreements among some of the authors of the 2007 AHA guidelines with respect to the need for prophylactic antibiotics for patients with these conditions; this emphasizes the importance of consulting the paediatric cardiologist prior to dental treatment

Amoxicillin remains the first choice as the prophylactic antibiotic. In 1997, amoxicillin was to be administered 1 hour before the procedure. The 2007 guidelines recommend administration of amoxicillin (and any other recommended antimicrobial) 30-60 minutes before the procedure.

	AGENT	2007 AHA Guidelines	1997 AHA Guidelines
Standard Oral Prophylaxis	Amoxicillin	ADULTS: 2 gms orally 30-60 minutes prior to dental procedure CHILDREN: 50mg/kg orally 30-60 minutes prior to dental procedure	ADULTS: 2 gms orally 1 hour prior to dental procedure CHILDREN: 50mg/kg orally 1 hour prior to dental procedure
Unable to take oral medications	Ampicillin OR	ADULTS: 2 gms IM or IV 30-60 minutes prior to dental procedure CHILDREN: 50mg/kg IM or IV 30-60 minutes prior to dental procedure	ADULTS: 2 gms IM or IV within 30 minutes prior to dental procedure CHILDREN: 50mg/kg IM or IV within 30 minutes prior to dental procedure
	Cefazolin or ceftriaxone	ADULTS: 1 gms IM or IV 30-60 minutes prior to dental procedure CHILDREN: 50mg/kg IM or IV 30-60 minutes prior to dental procedure	
Allergic to Penicillin or ampicillin- Oral regimen	Cephalexin OR	ADULTS: 2 gms orally 30-60 minutes prior to dental procedure CHILDREN: 50mg/ orally 30-60 minutes prior to dental procedure	ADULTS: 2 gms orally 1 hour prior to dental procedure CHILDREN: 50mg/kg orally 1 hour prior to dental procedure
	Cefadroxil		ADULTS: 2 gms orally 1 hour prior to dental procedure CHILDREN: 50mg/kg orally 1 hour prior to dental procedure
	Clindamycin OR	ADULTS: 600 mg orally 30-60 minutes prior to dental procedure CHILDREN: 20mg/kg orally 30-60 minutes prior to dental procedure	ADULTS: 600 mg 1 hour prior to dental procedure CHILDREN: 20mg/kg 1 hour prior to dental procedure
	Azithromycin or clarithromycin	ADULTS: 500 mg orally 30-60 minutes prior to dental procedure CHILDREN: 15mg/kg orally 30-60 minutes prior to dental procedure	ADULTS: 500 mg orally 1 hour prior to dental procedure CHILDREN: 15mg/kg orally 1 hour prior to dental procedure
Allergic to Penicillin or ampicillin- Unable to take oral regimen	Cefazolin OR	ADULTS: 1 gms IM or IV 30-60 minutes prior to dental procedure CHILDREN: 50mg/kg IM or IV 30-60 minutes prior to dental procedure	ADULTS: 1 gm IM or IV within 30 minutes prior to dental procedure CHILDREN: 25mg/kg IM or IV within 30 minutes prior to dental procedure
	Ceftriaxone	ADULTS: 1 gms IM or IV 30-60 minutes prior to dental procedure CHILDREN: 50mg/kg IM or IV 30-60 minutes prior to dental procedure	
	Clindamycin	ADULTS: 600 mg IM or IV 30-60 minutes prior to dental procedure CHILDREN: 20mg/kg IM or IV 30-60 minutes prior to dental procedure	ADULTS: 600 mg IM or IV within 30 minutes prior to dental procedure CHILDREN: 20mg/kg IM or IV 1 hour prior to dental procedure

Dental Procedures Requiring Antibiotic Coverage	
2007 Guidelines	1997 Guidelines
All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa	All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa
Suture removal	
Extractions	Extractions
Periodontal procedures (scaling, root planing, probing, surgery, recall maintenance)	Periodontal procedures (scaling, root planing, probing, surgery, recall maintenance)
Implant placement and remplantation of avulsed teeth	Implant placement and remplantation of avulsed teeth
Endodontic instrumentation or surgery when beyond the apex	Endodontic instrumentation or surgery when beyond the apex
Subgingival placement of antibiotic fibres or strips	Subgingival placement of antibiotic fibres or strips
Intraligamentary local anaesthetic injections	Intraligamentary local anaesthetic injections
Prophylactic cleaning of teeth or implants	Prophylactic cleaning of teeth or implants
Biopsies	Biopsies
Placement of orthodontic bands	Placement of orthodontic bands

Dental Procedures NOT Requiring Antibiotic Coverage	
2007 Guidelines	1997 Guidelines
	Suture removal
Restorative dentistry without retraction cord (unless bleeding is anticipated)	Restorative dentistry without retraction cord (unless bleeding is anticipated)
Local anaesthetic injections through non-infected tissue (non-intraligamentary)	Local anaesthetic injections through non-infected tissue (non-intraligamentary)
Intracanal endodontic treatment	Intracanal endodontic treatment
Post placement and buildup	Post placement and buildup
Rubber dam placement	Rubber dam placement
Making of oral impressions	Making of oral impressions
Fluoride treatments	Fluoride treatments
Taking radiographs	Taking radiographs
Placement or removal of orthodontic or prosthetic appliances	Placement or removal of orthodontic or prosthetic appliances
Placement of orthodontic brackets	Placement of orthodontic brackets
Adjustment of orthodontic appliances	Adjustment of orthodontic appliances
Shedding of deciduous teeth	Shedding of deciduous teeth
Bleeding from trauma to the lips or oral mucosa	Bleeding from trauma to the lips or oral mucosa

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