



# Information on Antibiotic Prophylaxis For Patients



## CONTENTS

- ▶ I have a prosthetic joint. What is the current guideline that dentists should follow on prophylactic antibiotics for patients with prosthetic joints? ..... 2
- ▶ What are the recommendations under this new guideline? ..... 2
- ▶ What does the RCDSO recommend to dentists? ..... 2
- ▶ What types of medical conditions place me at greater risk for orthopaedic implant infections?..... 2
- ▶ Who is responsible for determining if antibiotic prophylaxis is required for dental procedures?.. 3
- ▶ What happens if there is a disagreement between the dentist and the physician regarding the decision to prescribe antibiotic prophylaxis? ... 3
- ▶ I have a heart condition. What is the current guideline on antibiotic prophylaxis for the prevention of infective endocarditis? ..... 3
- ▶ What are the conditions that are associated with the highest risk?..... 4
- ▶ I have a stent. Do I require antibiotic prophylaxis? ..... 4
- ▶ I just had heart surgery. Do I require antibiotic prophylaxis? ..... 4
- ▶ I have had a heart valve replacement. Do I require prophylactic antibiotics?..... 5
- ▶ What antibiotic regimen should I be taking if I require prophylactic antibiotics according to the guidelines of the American Heart Association? ..... 5
- ▶ What antibiotic regimen should I be taking if I require antibiotic prophylaxis according to the guidelines of the American Heart Association but am allergic to penicillin or ampicillin? ..... 5
- ▶ I have a heart condition that puts me at high risk for the development of infective endocarditis and I forgot to take the prescribed antibiotics before my dental appointment. What should I do? ..... 5



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**I have a prosthetic joint. What is the current guideline that dentists should follow on prophylactic antibiotics for patients with prosthetic joints?**

In 2012 the American Academy of Orthopaedic Surgeons (AAOS) and the American Dental Association (ADA) released a new evidence-based guideline on the Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures. The new guideline replaces the previous 2009 AAOS Information Statement on Antibiotic Prophylaxis for Bacteremia in Patients with Joint Replacement.

**What are the recommendations under this new guideline?**

The AAOS and the ADA have found that the evidence does not support routine prescription of antibiotic prophylaxis for patients with joint replacement who are undergoing dental procedures. The AAOS and the ADA recommended that dentists might consider discontinuing the practice of routinely prescribing prophylactic antibiotics for patients with hip and knee prosthetic joint implants undergoing dental procedures.

**What does the RCDSO recommend to dentists?**

Dentists should review the most recent guideline from the AAOS and the ADA and implement it in their offices.

The RCDSO advises dentists that they should not prescribe prophylactic antibiotics for patients with prosthetic joints unless these patients have a medical condition that may compromise their immune system, suggesting that they may be at greater risk for orthopaedic implant infections.

**What types of medical conditions place me at greater risk for orthopaedic implant infections?**

Medical conditions that may place patients at greater risk for orthopaedic implant infections include (but are not limited to) diabetes, rheumatoid arthritis, cancer, chemotherapy and chronic steroid use.

For patients with such medical conditions, decisions about prophylactic antibiotics should be made in consultation with their physicians in a context of open communication and informed consent.

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**Who is responsible for determining if antibiotic prophylaxis is required for dental procedures?**

The AAOS and ADA have advised that these recommendations are not intended to stand alone. Treatment decisions should be made in light of all circumstances presented by the patient. Treatment and procedures applicable to the individual patient rely on mutual communication between patient, physician, dentist and other healthcare practitioners who are involved in the patient's care.

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**What happens if there is a disagreement between the dentist and the physician regarding the decision to prescribe antibiotic prophylaxis?**

Sometimes patients with prosthetic joints may present at a dentist's office with a recommendation from a physician that is inconsistent with the current guidelines (from the AAOS and the ADA). This may reflect a lack of familiarity with the current guidelines or special considerations about the patient's medical condition of which the dentist is unaware. In such circumstances, dentists are encouraged to consult with the patient's physician.

Ideally, consensus should be reached among the professionals involved. However, each is ultimately responsible for his or her own treatment decisions.

As a result of the consultation, the dentist may decide to follow the physician's recommendation or, if professional judgement dictates that antibiotic prophylaxis is not indicated, decline to provide it. In the latter circumstance, the dentist may suggest that the physician should prescribe for the patients as she or he deems appropriate.

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**I have a heart condition. What is the current guideline on antibiotic prophylaxis for the prevention of infective endocarditis?**

In 2007, the American Heart Association (AHA) published revised guidelines for the prevention of infective endocarditis. This guideline conclude that taking prophylactic antibiotics is reasonable only for those patients who have cardiac conditions that put them at highest risk of adverse outcome from infective endocarditis and who therefore derive the greatest benefit from its prevention.

<http://www.rcdso.org/save.aspx?id=765fe836-aa14-4754-871b-e067a8f2ddb0>

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**What are the conditions that are associated with the highest risk?**

1. Prosthetic cardiac valve or prosthetic material used for cardiac valve repair.
2. Previous infective endocarditis.
3. Congenital heart disease (CHD)\*:
  - a) Unrepaired cyanotic CHD, including palliative shunts and conduits.
  - b) Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure.
  - c) Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialisation).
4. 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.

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**I have a stent. Do I require antibiotic prophylaxis?**

According to the AHA, antibiotic prophylaxis after stent placement is not recommended for patients who undergo dental procedures.

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**I just had heart surgery. Do I require antibiotic prophylaxis?**

It depends on what kind of heart surgery you have had.

Patients who have had surgery for placement of prosthetic heart valves or prosthetic intravascular or intracardiac materials are at high risk for developing an infection and should be given premedication according to the 2007 AHA guidelines.

Patients who have had coronary artery bypass graft surgery do not require antibiotic prophylaxis.

It may be reasonable to prescribe prophylactic antibiotics for patients who have undergone heart transplantation and developed cardiac valvulopathy.

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**I have had a heart valve replacement. Do I require prophylactic antibiotics?**

Yes. All patients with heart valve replacements, whether the valves are prosthetic or originated from humans or animals (e.g. bovine, porcine), require antibiotic prophylaxis.

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**What antibiotic regimen should I be taking if I require prophylactic antibiotics according to the guidelines of the American Heart Association?**

The drug of choice is Amoxicillin 2 grams taken orally 30-60 minutes before the dental procedure.

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**What antibiotic regimen should I be taking if I require antibiotic prophylaxis according to the guidelines of the American Heart Association but am allergic to penicillin or ampicillin?**

In that case, the following antibiotic options should be considered, all taken orally 30-60 min before the procedure:

- Clindamycin 600mg, or
- Azithromycin or Clarithromycin 500mg, or
- Cephalexin 2.0g\*

\*Cephalosporins should not be taken by individuals with immediate-type hypersensitivity reactions (such as urticaria, angioedema or anaphylaxis) to penicillins or ampicillin.

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**I have a heart condition that puts me at high risk for the development of infective endocarditis and I forgot to take the prescribed antibiotics before my dental appointment. What should I do?**

You should tell your dentist. Antibiotics should be taken in a single dose 30-60 minutes before dental treatment. This time period is recommended so that there will be high blood levels of antibiotic at the time when bacteria from the mouth enter the bloodstream.