

Antibiotic Prophylaxis after Joint Replacement

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After joint replacement current evidence suggests that routine use of antibiotics for all dental procedures is not indicated. Rather this decision should be based on the expected associated risk of infection associated with the procedure. For routine non surgical dental treatments, including extractions no antibiotics are required, unless otherwise indicated. The following recommendations of the Arthroplasty Society may be applied:



Position Statement of the Arthroplasty Society of Australia

Recommendations for Patients with Hip or Knee Joint Replacement who Require Dental Treatment.

Dental problem in the first 3 months following hip or knee joint placement surgery

Infection with abscess formation: Urgent and aggressive treatment of the abscess. Remove the cause (exodontic or endodontic) under antibiotic prophylaxis.

Pain: Provide emergency dental treatment for pain. Antibiotics are indicated if a high- or medium-risk dental procedure performed.

Noninfective dental problem without pain: Defer non-emergency dental treatment until 3 to 6 months after prosthesis replacement.

Dental treatment after 3 months in a patient with a normally functioning artificial joint

Routine dental treatment including extraction. **No antibiotic prophylaxis required.**

Dental treatment for patients with significant risk factors for prosthetic joint infection

Immunocompromised patients include:

- those with insulin-dependent diabetes
- those taking immunosuppressive treatment for organ transplants or malignancy
- those with systemic rheumatoid arthritis
- those taking systemic steroids (e.g., patients with severe asthma, dermatological problems)

Consultation with the patient's treating physician is recommended.

Failing, particularly chronically inflamed, artificial joints:

Consultation with the patient's treating orthopaedic surgeon is recommended.

Defer non-essential dental treatment until orthopaedic problem has resolved.

Previous history of infected artificial joints:

Routine non-surgical dental treatment – no prophylaxis indicated.

Recommended antibiotic regimens where indicated

1. Dental clinic LA extractions or deep curettage

Amoxicillin 2-3g orally 1 hour prior to procedure

2. Theatre procedures

Amoxicillin 1g I/V at induction

Followed by 500mg amoxicillin I/V or orally 6 hours later.

3. Penicillin hypersensitivity, long term penicillin, recent penicillin/other B-lactam.

Clindamycin 600mg 1 hour prior to procedure or Vancomycin 1g I/V 1 hour to finish 2 hours or Lincomycin 600mg just prior to the procedure

4. High risk case

(i.e., Gross oral sepsis/severely immunocompromised/previous joint infection.)

Gentamicin 2mg/kg I/V just before procedure (*can be administered 3mg/kg provided there is no concomitant renal disease*)

PLUS Amoxicillin 1g I/V just before procedure followed by 500mg I/V or orally 6 hours later.

If hypersensitive to penicillin replace amoxicillin with Vancomycin 1g I/V over 1 hour to finish just before procedure.

Ref: Scott JF et al, Patients with artificial joints: do they need antibiotic cover for dental treatment? *Aust Dent J* 2005;50 Suppl 2S45-S53