

## Doxycycline ineffective for osteoarthritis of the knee or hip

<b>Clinical question</b>	How effective is doxycycline for osteoarthritis (OA) of the knee or hip?
<b>Bottom line</b>	Compared to placebo, there is minimal or no symptomatic benefit (pain reduction and improved physical function) with doxycycline treatment. The small benefit observed in joint space narrowing is of questionable clinical relevance and outweighed by safety issues. Doxycycline should therefore not be recommended for the treatment of osteoarthritis of the knee or hip.
<b>Caveat</b>	The trial was designed to detect differences in joint space narrowing rather than differences in clinical outcomes. No threshold for the level of knee pain was used for inclusion and the average level of knee pain was low at baseline, leaving little room for improvement. For the effectiveness outcomes, the quality of the evidence was classified as low to moderate because only a single trial was available, estimates were not derived from intention-to-treat analyses, and were imprecise for pain and function. For withdrawals due to adverse events and serious adverse event outcomes, the quality of the evidence was classified as low to moderate in view of a single available trial and an imprecise estimate for serious adverse events.
<b>Context</b>	Osteoarthritis is a chronic joint disease that involves degeneration of articular cartilage. Pre-clinical data has suggested that doxycycline might act as a disease-modifying agent for the treatment of osteoarthritis, with the potential to slow cartilage degeneration.
<b>Cochrane Systematic Review</b>	Nuesch E et al. Doxycycline for osteoarthritis of the knee or hip. Cochrane Reviews 2009, Issue 4. Article No. CD007323. DOI: 10.1002/14651858.CD007323.pub2. This review contains one study involving 431 participants.
<b>PEARLS No. 220, December 2009, written by Brian R McAvoy</b>	

PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

View PEARLS online at:

- [www.cochraneprimarycare.org](http://www.cochraneprimarycare.org)