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[Interventions for treating asymptomatic impacted wisdom teeth in adolescents and adults](#)

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The Cochrane Collaboration is an international organization that aims to help people make well-informed decisions about healthcare by preparing, maintaining and promoting the accessibility of systematic reviews on the effects of healthcare interventions. The Cochrane Oral Health Group aims to produce systematic reviews which primarily include all randomized control trials (RCTs) of oral health, including prevention, treatment and rehabilitation of oral, dental and craniofacial diseases and disorders. The abstracts of these reviews can be accessed electronically at <http://www.cochrane-oral.man.ac.uk>. Full copies of the review papers can also be purchased via this website.

The *Australian Dental Journal* publishes selected abstracts in each issue for our readers' interest. A detailed description of the activities of the Cochrane Oral Health Group, written by the Review Group Co-ordinator, Dr Emma Tavender, was published in the June 2004 issue of the Journal (*Aust Dent J* 2004;49:58-59). Also, for explanations of abbreviations and terminology please see Appendix 1 on page 59 of the aforementioned article.

EDITOR

Interventions for treating asymptomatic impacted wisdom teeth in adolescents and adults

TG Mettes, MEL Nienhuijs, WJM van der Sanden, EH Verdonschot, AJM Plasschaert

Background: The prophylactic removal of asymptomatic impacted wisdom teeth is defined as the (surgical) removal of wisdom teeth in the absence of local disease. Impacted wisdom teeth have been associated with pathological changes, such as inflammation of the gums around the tooth, root resorption, gums- and alveolar bone disease, damage of the adjacent teeth, the development of cysts and tumours. Several other reasons to justify prophylactic removal have also been given. Wisdom teeth do not always fulfil a functional role in the mouth. When surgical removal is carried out in older patients the risk of more postoperative complications, pain and discomfort increases. Nevertheless, in most developed countries the prophylactic removal of trouble-free wisdom teeth, either impacted or fully erupted, has long been considered as 'appropriate care'. Prudent decision-making, with adherence to specified indicators for removal, may reduce the number of surgical procedures by 60 per cent or more. It has been suggested that watchful monitoring of asymptomatic wisdom teeth may be an appropriate strategy.

Objectives: To evaluate the effect of prophylactic removal of asymptomatic impacted wisdom teeth in adolescents and adults compared with the retention of these wisdom teeth.

Search strategy: The following electronic databases were searched: The Cochrane Oral Health Group Trials Register (4 August 2004), the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (1966 to 4 August 2004), PubMed (1966 to 4 August 2004), EMBASE (1974 to 4 August 2004). There was

no restriction on language. Key journals were hand searched. An attempt was made to identify ongoing and unpublished trials.

Selection criteria: All randomized or controlled clinical trials (RCTs/CCTs) comparing the effect of prophylactic removal of asymptomatic impacted wisdom teeth with no-treatment (retention).

Data collection and analysis: Assessment of relevance, validity and data extraction were conducted in duplicate and independently by three reviewers. Where uncertainty existed, authors were contacted for additional information about randomization and withdrawals. A quality assessment of the trials was carried out.

Main results: Only three trials were identified that satisfied the review selection criteria. Two were completed RCTs and both assessed the influence of prophylactic removal on late incisor crowding in adolescents. One ongoing RCT was identified, but the researchers were unable to provide any data. They intend to publish in the near future and information received will be included in updates. Although both completed trials met the inclusion criteria of the review, regarding participants characteristics, interventions and outcomes assessed, different outcomes measures were assessed which prevented pooling of data

Authors' conclusions: No evidence was found to support or refute routine prophylactic removal of asymptomatic impacted wisdom teeth in adults. There is some reliable evidence that suggests that the prophylactic removal of asymptomatic impacted wisdom teeth in adolescents neither reduces nor prevents late incisor crowding.

COMMENTARY

This Cochrane Review in common with many other of the Cochrane Series Reviews in Dentistry is inconclusive. This in part reflects the sparsity of evidence which in turn reflects the sparsity of appropriate randomized or controlled clinic trials in dentistry which meets the Cochrane criteria. In this study only two studies met the criteria and both related to a relationship between impacted wisdom teeth and incisor crowding.

Clinically incisor crowding is not the key issue. It is a minor aesthetic issue alone. It is noteworthy that these studies did not look at the effect of impacted third molars on the posterior crowding which is better documented but again is largely an aesthetic issue. The most important issue relating to third molars is the prevention of pathology and the acknowledged greater

morbidity of removing third molars in older adults. All experienced oral and maxillofacial surgeons have many such cases where a decision has been made to leave impacted third molars alone. A recent case of mine, had many decades of watchful monitoring of a resorbing impacted wisdom tooth. Regrettably this man who was ill with significant cardiovascular disease presented at the age of 98 years old with Ludwig's angina related to the tooth! Early removal would have prevented this.

Hence until there is evidence to the contrary it is recommended that non-functional wisdom teeth are best removed in teenagers and young adults. This is sound preventive dentistry.

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