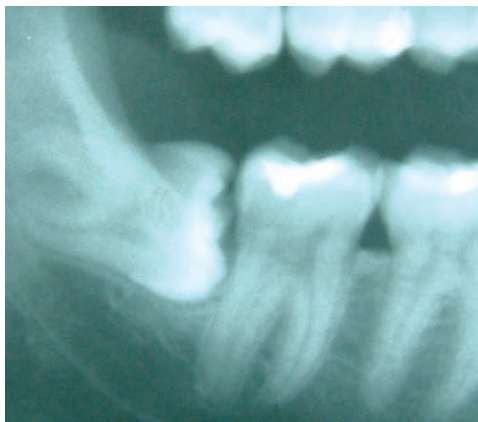


Case 3

This 24 year old female presented with long standing breakdown of the gum overlying the horizontally impacted lower right 3rd molar tooth, and with complaint of 2nd molar sensitivity.

The long term periodontal prognosis for the second molar was explained, and the patient elected for alveolar bone graft to follow on from the wisdom tooth removal. Six months later the second molar was asymptomatic and healthy.

Pre-operative film OPG (Right)



Post-operative digital OPG (Right) 6 months later



Dr Paul Lloyd G Coceancig
BDS Hons MDS OMS MB ChB FRACDS OMS

Oral & Maxillofacial Surgeon

Phone: (02) 4927 5177

Main Office

Unit 4, 2nd Floor, Boardwalk North,
1 Honeysuckle Drive, Newcastle 2300

Postal

PO Box 836, Newcastle, 2300



NEWSLETTER

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**Impacted lower
wisdom teeth
&
Alveolar bone grafting**

The general dental surgeon is the primary screening practitioner for occult disease in the oral & maxillofacial region. The most common occult (hidden) condition diagnosed by dentists are impacted third molar (wisdom) teeth.

Prophylactic removal aims to eradicate impacted wisdom teeth before they become symptomatic. It is difficult to justify not treating an asymptomatic impacted wisdom tooth because of a lack of symptoms. Symptoms are present usually because a serious condition has arisen. Ideal treatment aims to prevent symptoms and disabilities; before they arise.

The most serious ongoing condition that follows symptomatic wisdom tooth removal is usually caries or periodontal disease that affects the forward (second) molar tooth.

The greatest cause of second molar tooth loss is because of carious or periodontal disease founded by an impacted third molar tooth.

Late presentation of horizontally impacted, and partially erupted third molar teeth, usually presents as pain in the second molar tooth. The pain arises because the backside (distal) surface of the second molar root is not covered by bone or gum tissue. The surface can be exquisitely sensitive to cold, hot and sugary foods & liquids.

Removal of the impacted wisdom tooth does not relieve the pain, and may instead lead to a deep socket (or periodontal pocket) behind the second molar. This in turn collects stagnant food, and leads to further elaboration of (periodontal) symptoms in the tooth and region.

Usually there is no stable long term treatment that can be offered, and it is traditionally accepted that extraction of the second molar tooth is the only definitive treatment.

Recent advances in bioengineering techniques make it possible for alveolar bone grafts to lead to regeneration of bone distal to the lower second molar tooth at the time of wisdom tooth removal. These treatments have proved effective in controlling short and long term symptoms in the lower second molar tooth, and have lead to 100% retention rates of such teeth where the technique has been used.

Ocean Surgical has conducted an effective surgical régime using bovine bone and porcine collagen for biotissue reengineering of the distal alveolus of the lower second molar, following (partially erupted and horizontally impacted) third molar removal. The three cases following are selected from over a hundred, and for comparative purposes, specifically illustrate lower right third molar wisdom teeth that have been removed with subsequent alveolar bone grafts.

Case 1

This 24 year old male presented with long standing impacted wisdom teeth. The lower right 3rd molar was horizontally impacted, and had lead to considerable bone loss to the distal (backside) surface of the forward 2nd molar tooth.

The second molar was symptomatic and had lead him to seek treatment by his dental surgeon. It was advised that following 3rd molar tooth removal that the 2nd molar would likely remain symptomatic and may need removal in the long term.

The patient elected for an alveolar bone graft to the distal of the 2nd molar tooth after removal of the 3rd molar. Six months later the 2nd molar was asymptomatic, and without distal pocketing. OPG demonstrated normal alveolar height.

Pre-operative film OPG (Right)



Post-operative digital OPG (Right) 6 months later



Case 2

This 19 year old male presented with acute pericoronitis and pain associated with breakdown of the gum tissue overlying the impacted lower right 3rd molar tooth. The potential post-operative complication of distal periodontal pocketing to the 2nd molar tooth was explained, and the patient elected for an alveolar bone graft to accompany wisdom tooth removal. Six months later the 2nd molar tooth was healthy and asymptomatic, with complete bone regeneration apparent behind this tooth.

Pre-operative film OPG (Right)



Post-operative digital OPG (Right) 6 months later

