Table 3. Indications for TMJ Surgery

Absolute indications	
1	Ankylosis – eg. Fibrous or osseous joint fusion
2	Neoplasia – eg. Osteochondroma of the condyle
3	Dislocation – ie. Recurrent or chronic
4	Developmental disorders – eg. Condylar hyperplasia
Relative indications	
1	Internal derangement
2	Osteoarthrosis
3	Trauma
A	General indications
i	Disorder not responding to non-surgical therapy
ii	Where the TMJ is the source of pain and dysfunction
a	Pain localised to the TMJ
b	Pain on functional loading and movement of the TMJ
c	Mechanical interference with TMJ function
B	Specific indications
i	Chronic severe limited mouth opening
ii	Advanced degenerative joint disease with intolerable symptoms of pain and joint dysfunction
iii	Confirmation of severe joint disease on CT scan or MRI

(Courtesy of Dimitroulis G: Management of temporomandibular joint disorders: A surgeon's perspective. *Austral Dent J* 63:579-590, 2018.)

Closed TMJ Procedures

TMU arthrocentesis and arthoscopy can manage "stuck" joints by lubricating the superior joint space and allowing mobilization of the articular disc. TMJ arthrocentesis is useful for acute onset closed lock TMJ, whereas arthroscopy is more effective in managing chronic or recalcitrant cases of closed lock.

Open TMJ Procedures

Arthotomy, which includes the open TMJ surgical approaches, involves surgical exposure of the TMJ using an incision in front of the ear. The range of surgical procedures that can be performed include disc repair and repositioning and discectomy, among others. Arthrotomy is best performed when the joint has been damaged and fails to respond to other measures. If the problem is that the TMJ components are beyond salvage, the condylar head of the mandible is resected. To maintain facial symmetry and preserve occlusion, a prosthetic total joint replacement is needed. Recovery from TMJ total joint replacement is usually 3 to 4 weeks and requires jaw physiotherapy.

DISCUSSION

When managing TMDs, a multidisciplinary team is the best approach because of the many aspects of care that must be addressed. If nonsurgical approaches are not successful, dental practitioners should be prepared to refer patients as needed to obtain specialized care.

Clinical Significance

Most TMD patients respond to nonsurgical approaches. The wide range of options makes it possible to fit the treatment to the patient's needs. Should such therapy fail, surgery offers a more definitive approach and can achieve good results in many cases. Dental practitioners must also be aware of the psychological aspect of TMDs and make referrals to address any patients with psychogenic TMD.

Dimitroulis G: Management of temporomandibular joint disorders: A surgeon's perspective. *Austral Dent J* 63:579-590, 2018

Reprints available from G Dimitroulis, Maxillofacial Surgery Unit, Dept of Surgery, St. Vincent's Hosp, The Univ of Melbourne, Melbourne, 3010 Vic, Australia; e-mail: geodim25@gmail.com

THIRD MOLARS

Managing third molars

BACKGROUND

Clinicians can be faced with the decision whether or not to remove a third molar and when to do so. At least 96% of the population has 1 or more third molars, and up to 36% of young people may have an impacted third molar. However, the current evidence does not clearly indicate the correct decision in all cases. The assessment of third molars, a decision matrix, indications for and against removal, and a case are presented to help in clinical situations involving third molar management.

ASSESSMENT

Classification

The most suitable classification system describes third molars as being symptomatic or asymptomatic and disease free or disease

Table 2. Indication for the Removal of Third Molars Grouped According to Symptom and Disease Status

(Courtesy of Hyam DM: The contemporary management of third molars. *Austral Dent J* 63:S19-S26, 2018.)

positive (Table 2). Third molars can also be labeled as visible at the line of occlusion or visible but not at the line of occlusion. Decisions can then be made based on the classification as one factor.

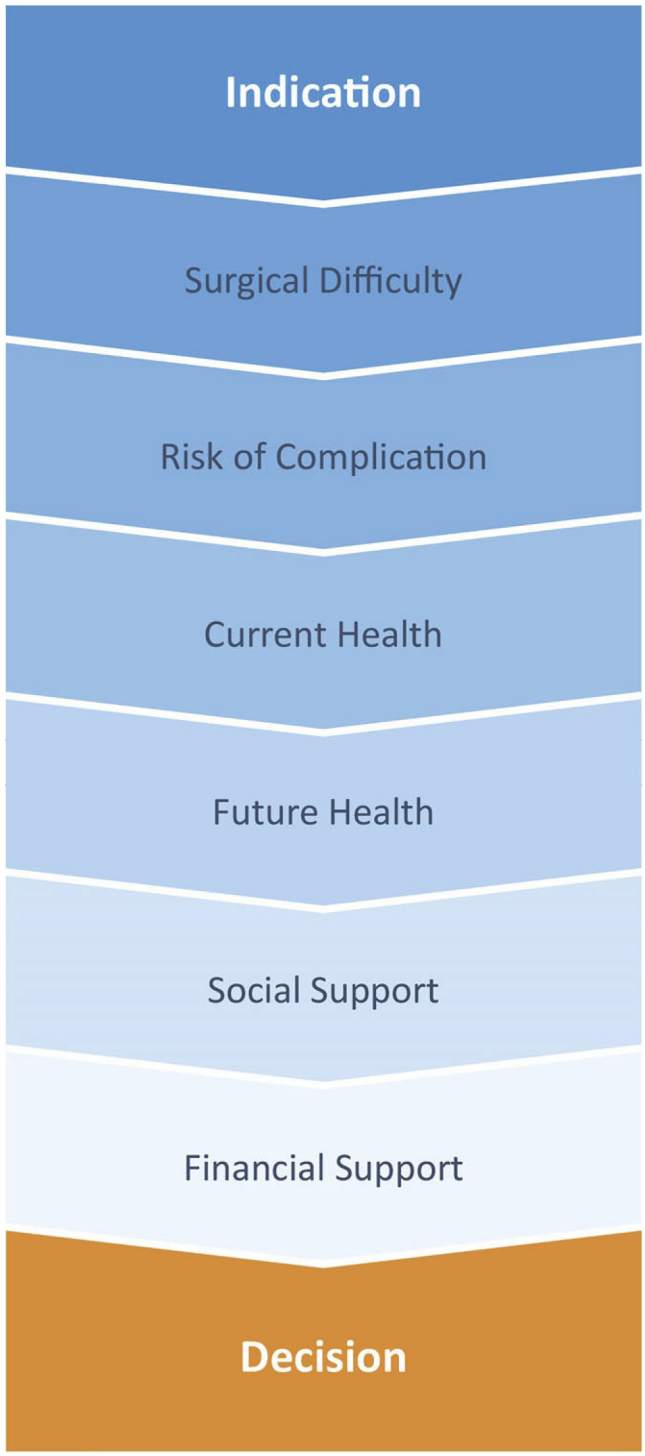
Timing

The timing of third molar removal can be determined by the patient's chronological age, tooth development, and whether the tooth has symptoms or disease. Early removal may be selected for patients if the clinician believes it will reduce postoperative pain and suffering, could increase the patient's quality of life, may reduce financial strain, could maximize oral health, and may prevent complications related to long-term retention of nonfunctional third molars.

DECISION MATRIX

When deciding what to do about a third molar, the first step is to analyze the indication for removal (Table 3). Decisions can be based on careful consideration of the surgical difficulty and risk of complications, as well as the patient's current and future health issues, his or her social support system, and any financial support issues.

Table 3. Third Molar Decision Matrix



(Courtesy of Hyam DM: The contemporary management of third molars. *Austral Dent J* 63:S19-S26, 2018.)

INDICATIONS FOR ACTION

Indications are based on the presence or absence of symptoms and disease. When the patient is symptom positive

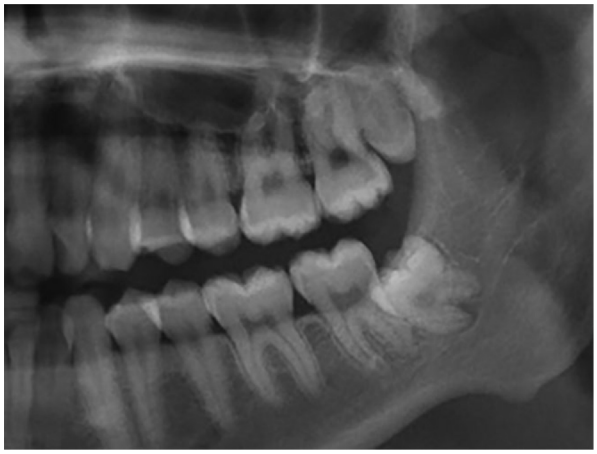


Figure 1. Radiograph of Case 1. (Courtesy of Hyam DM: The contemporary management of third molars. *Austral Dent J* 63:S19-S26, 2018.)

and disease positive, the decision to remove is obvious. When the patient is symptom free but disease positive, further evaluation is required. Some patients who are both symptom negative and disease negative will also qualify for third molar removal.

Even if surgery is not indicated, patients should remain under regular review and have regular radiological assessment. The degree of symptoms present and the type of contraindication to surgery should be considered when determining if the review should be done after 2, 5, or 10 years.

CASE STUDY

Man, 17, has fragile X syndrome and lives in an institutional facility. His elderly mother provides limited support and he is under her health plan until he turns 18. He is symptom free but has tooth 38 partially erupted. A 3-mm periodontal pocket is present at the mesial aspect (Figure 1).

Using the decision matrix, the tooth is symptom negative and disease negative. Current health modifiers include the patient's poor understanding and capacity to consent to the procedure, which tend to make removal an unattractive choice. However, his future health modifiers could increase the inclination to perform surgery based on his poor oral health and the likelihood that it won't improve with time. Social modifiers include current access to social, family, and financial support that won't be guaranteed to be present in the future. When all the factors are considered, the decision to remove the third molar is based on nonclinical but highly significant social and financial factors.

Clinical Significance

Clinicians must weigh the benefits and risks associated with third molar removal for each patient. Use of a decision matrix could help to formalize the consideration process and guide dental practitioners to make well-founded and defensible decisions along with their patients.

Hyam DM: The contemporary management of third molars. *Austral Dent J* 63:S19-S26, 2018

Reprints available from D Hyam, Capitol Oral and Facial Surgery, Suite 2, Level 3, 173 Strickland Crescent, Deakin, ACT 2600, Australia; e-mail; dylan.hyam@act.gov.au