

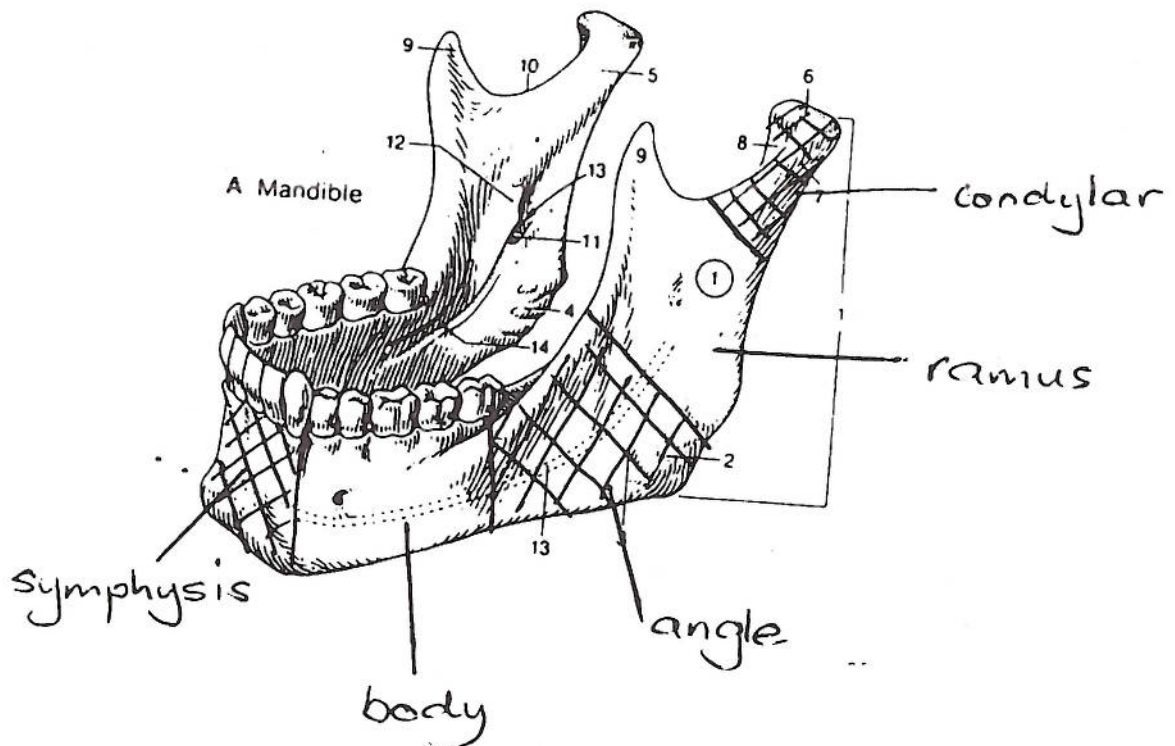
Mandibular Fractures.

CLINICAL FEATURES.

- (1) Swelling and pain
- (2) Malocclusion/mobile teeth
- (3) Neurosensory disturbance over the distribution of inferior alveolar/mental nerves (IE numbness/tingling over lower lip).
- (4) Limited jaw opening.

CLASSIFICATION.

Fractures classified according to anatomical position.



RADIOGRAPHS.

Usually each hospital has standard set of views but two most important screening x-rays:

- (1) OPG*
- (2) PA MANDIBLE*

If condylar fracture can also obtain

- (3) REVERSE TOWNES.*

(Problem area with x-rays is symphysis where cervical spine overlaps area - clinical evaluation of this area important - If in doubt can also order ANTERIOR MANDIBULAR OCCLUSAL radiograph).*

Sometimes CT SCAN will be required for some specific injuries.

EXAMINATION.

- (1) External swelling/lacerations*
- (2) Palpate for pain*
- (3) Note inability/difficulty opening mouth*
- (4) Ask if numbness/tingling on lip*
- (5) Ask if teeth meeting together properly (look at occlusion - the way the teeth bite together).*
- (6) Ask if any teeth loose/broken*
- (7) Oral bruising, lacerations, bleeding*

TREATMENT.

Dependent on area of fractures, displacement, presence of malocclusion.

Fractures may be treated either:

- (1) Conservatively*
- (2) Stabilization/immobilization and reduction.*

Mandibular fractures rarely treated nowadays with intermaxillary fixation (IE jaws wired together). Most mandibular fractures will require stabilization and immobilization and if displaced specific reduction. This is done nowadays with oral incisions and rigid internal fixation using mini/micro plates.

If a fracture is very stable with no displacement or in some circumstances mandibular condylar fractures conservative (no surgery) can be performed. However this still means review of the patient over the period of healing and of necessary intervention if healing is not proceeding normally. Most fractures not involving the condyle need some form of stabilization in most instances.

PRE-OPERATIVE ORDERS.

If admission required:

- (1) Analgesics - dependent on patient requirement.*

Narcotic - Morphine/Pethidine.

- Panadeine Forte

- (2) *Antibiotics - dependent on patient requirement.*

Penicillin 1.2g IV 4 Hourly

Keflex 1g IV 6 Hourly

If infected add:

Flagyl 500mg IV 8 Hourly

- (3) *Fast for theatre*

- (4) *Establish IV access for drugs & ? fluid replacement*

DISCHARGE/POST OPERATIVE/CONSERVATIVE MANAGEMENT INSTRUCTIONS.

- (1) *Analgesia - Panadeine Forte PRN*

- (2) *Antibiotics - open reduction, fracture involves teeth or compound orally.*

(Fractures of the condyles are not open fractures usually and as such do not generally require antibiotics).

Penicillin 500mg QID/Amoxycillin 500mg TDS

If allergy

Clindamycin 150mg QID.

If fracture infected add

Flagyl 500mg TDS

- (3) *Ensure good oral hygiene - tooth brushing and mouthwash (Chlorhexidine).*
- (4) *Soft diet. Most patients will require liquid/semi solid (yogurt, custard, ice-cream, jelly, vitamised vegetables) for 7 - 14 days approximately progressing to pasta, sausages etc. But it is expected to take 6 - 8 weeks before they can chew hard foods (chops, crusty bread rolls etc).*

(5) **Review!!!**

No fractured jaw can be sent away without some review. A fracture if treated conservatively has not required an operation but still has a fracture and can easily develop a complication/problem during the immediate healing phase.

Fractures generally reviewed one week after injury and then subsequently with review appointments sequenced based on specific injury and problem. Patient should be able to contact hospital/clinician again if problem.

LONG TERM PROBLEMS.

- (1) *Infection - Mandibular fractures often involve teeth which can become source of problem.*
- (2) *Malunion - commonly condylar fractures*
- (3) *Non - union - usually because of infection*
- (4) *Malocclusion*
- (5) *Numbness over distribution of mental nerve*
- (6) *Long term bone plate/screw removal*
- (7) *Loss of teeth (Tooth loss is not insequential. A single tooth replacement can cost as much as \$3500 - \$5000).*