

# Surgical Education and Self-assessment Program (SESAP)

Category 16, Item 13

## Question

The most common long-term complication after treatment of the injury seen in the facial bone film pictured is

- A Nonunion of the fracture
- B Malocclusion
- C Osteomyelitis
- D Numbness distal to the injury
- E Periodontal disease



## Critique

Malocclusion is the most common complication after mandibular fractures. It is the result of malalignment of one or more of the fracture fragments, and causes chronic pain, temporomandibular joint dysfunction, imbalance of the muscles of mastication, and damage to the dentition (supereruption of unopposed teeth). Malocclusion can result from failure to restore the preinjury occlusion or from loss of stabilization of the bony fixation during the period of healing. It is critical to determine a patient's preinjury occlusal status by examining the teeth carefully for points of contact and wear facets before reducing the fractures. When there is significant malocclusion after fracture healing, surgical treatment is required to restore the occlusion. Other complications include nonunion or failure of the fracture, osteomyelitis at the fracture, injury of the alveolar nerve producing numbness of the lower lip, and damage to the teeth and gums.

**B**

## Bibliography

1. Clark N. Mandibular fractures. In: Georgiade GS, Riefkohl R, Levin LS, editors. *Plastic, maxillofacial, and reconstructive surgery*. 3rd ed. Baltimore: Williams & Wilkins; 1997. p. 377-405.
2. Wood RJ, Jurkiewicz MJ. Plastic and reconstructive surgery. In: Schwartz SI, editor. *Principles of surgery*. 7th ed. New York: McGraw-Hill; 1999. p. 2091-143.

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