



SPLINTS IN PERIODONTAL THERAPY

SPLINTING

It is defined as the joining of two or more teeth into a rigid unit by means of a fixed or removable restorations/devices. Splint by definition is an appliance used for immobilization of injured or diseased parts.

PERIODONTAL SPLINT:

It is an appliance used for maintaining or stabilizing mobile teeth in their functional position. The main objective of splinting is to promote healing and to increase the patients comfort and function.

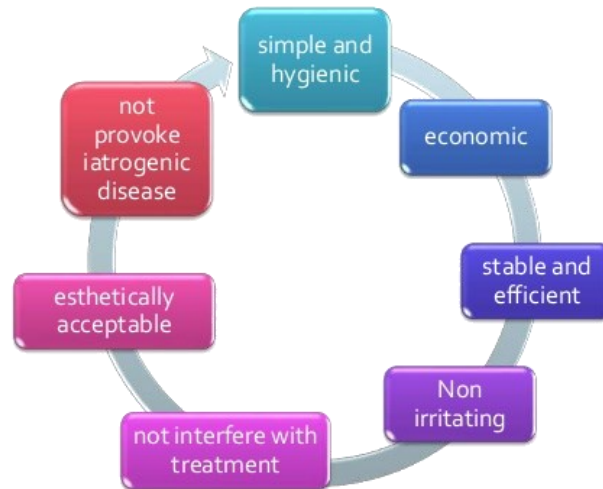
OBJECTIVES OF SPLINTING :

1. Provides rest.
2. For redirection of forces.
3. For redistribution of forces
4. To preserve arch integrity.
5. Restoration of functional stability
6. Psychologic well-being
7. To stabilize mobile teeth during surgical, especially regenerative therapy.
8. To prevent the eruption of teeth without an antagonist.





Ideal requirements of splint



CLASSIFICATION OF SPLINTS

According to the period of stabilization

- Temporary
- Permanent
- Provisional

According to the type of material

- Bonded, composite resin button
- Braided wire
- A-splints

According to the location on the tooth

- A) Intracoronal
 1. Composite resin with wire
 2. Inlays
 3. Nylon wire
- B) Extracoronal
 1. Tooth bonded plastic
- Night guard
- Welded bands



VARIOUS COMMONLY USED SPLINTS

1. Splints for Anterior Teeth a. Direct bonding system using acid etch techniques and a light cured resin. b. Intracoronal wire and acrylic wire resin splint—It involves the teeth with stainless steel wire placed in the slots thus stabilizing the teeth.
2. Splints for Posterior Teeth a. Intracoronal amalgam wire splints—It uses resin restoration with wire on the proximal amalgam restored areas of the tooth. b. Bite-guard. c. Rigid occlusal splint. d. Composite splint.

PRINCIPLES OF SPLINTING

1. Inclusion of sufficient number of healthy teeth
2. Splint around the arch:
3. Coronoplasty may be performed to relieve traumatic occlusion.
4. The splint should be fabricated in such a way as to facilitate proper plaque control.
5. Splint should be aesthetically-acceptable and should not interfere with occlusion.

INDICATIONS

1. It stabilizes moderate to advanced tooth mobility that can not be reduced by other means and which has not responded to occlusal adjustment and periodontal therapy.
2. When it interferes with normal masticatory function.
3. Facilitates scaling and surgical procedures.
4. Stabilizes teeth after orthodontic movement.
5. Stabilizes teeth after acute dental trauma, e.g. subluxation, avulsion, etc.
6. In order to prevent tipping and drifting of teeth.
7. Prevent extrusion of unopposed teeth.

CONTRAINDICATIONS

1. Moderate to severe tooth mobility in the presence of periodontal inflammation and/ primary occlusal trauma.



2. Insufficient number of firm/sufficiently firm teeth to stabilize mobile teeth.
3. Prior occlusal adjustment has not been done on teeth with occlusal trauma or occlusal interference.
4. Patient not maintaining oral hygiene.

ADVANTAGES

1. May establish final stability and comfort for patient with occlusal trauma.
2. Helpful to decrease mobility and accelerate healing following acute trauma to the teeth.
3. Allows remodelling of alveolar bone and periodontal ligament for orthodontically, splinted teeth.
4. Helpful in decreasing mobility thereby favoring regenerative therapy.
5. Distributes occlusal forces over a wider area.

DISADVANTAGES

1. All the splints hamper patient's self care.
2. Accumulation of plaque at the splinted margins can lead to further periodontal breakdown in a patient with already compromised periodontal support.
3. The splint being rigid acts as a lever with uneven distribution of forces, even if one tooth of the splint is in traumatic occlusion, it can injure the periodontium of all the teeth within the splint.
4. Development of caries is an unavoidable risk. Thus, it obviates the need of excellent oral hygiene in the patient.



PERIODONTAL SPLINT