

Dental Considerations Before and After Alveolar Bone Grafting in Cleft Patients

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Our Lady of Peace Craniofacial Center sees an average of 634 cleft patients per year for various multidisciplinary procedures and does an average of 295 cleft surgeries per year. We see patients who can undergo the ideal protocol of nasoalveolar molding at 0-3 months of age, cheiloplasty at 3 months old, palatoplasty at 1 year old and alveolar bone grafting at 7-9 years old. However, we also see patients who have missed the ideal timing of surgery.

One important part of the treatment is alveolar bone grafting for those with complete unilateral or bilateral clefts of the lip and palate. The ideal timing is before the canines erupt into the alveolar cleft gap. What are the dental considerations that must be attended to prior to the surgery? Healthy teeth beside the alveolar cleft, no pathologies in the maxillary teeth, moderate to narrow cleft gap, well-aligned lateral

segments and premaxilla at the level of the lateral segments. After the bone grafting is done, care must be taken to avoid dehiscence of the surgical wound, orthodontics may be started 8 weeks after surgery, and the unerupted teeth must be observed for their proper eruption. If they do not erupt, then a second surgical procedure must be done to expose the canines and do orthodontic forced eruption. The outcome of a well-formed and well-aligned maxillary arch is the goal. Skeletal discrepancies must also be observed, to find out if there is a need for orthognathic surgery.

This lecture will describe our experiences with alveolar bone grafting in various ages and stages of growth of the cleft patient and the dental considerations we have had to deal with before and after the surgery.