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5th Edition



Textbook of Pediatric Dentistry

Nikhil Marwah

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CHAPTER 49

Esthetic Crowns in Pediatric Dentistry

Ravi GR, Nikhil Marwah, Suzan Sahana, Mukul Jain, Amol Patil

Chapter Outline

- Facial Cutout Stainless Steel Crowns
- Pre-veneered Stainless Steel Crowns
- Cheng Crowns
- Dura Crowns
- Kinder Krowns
- Pedo Pearls
- Polycarbonate Crowns
- Strip Crowns
- Shell Crowns
- Pedo Jacket Crowns
- Art Glass Crowns
- Figaro Crowns
- Edelweiss Pediatric Crowns
- Zirconia Crowns
- Bioflex Crowns

The healthy oral cavity is a primary requisite for beautiful looks. Despite the fact that it is largely preventable, dental caries is the most common chronic disease of childhood. Clinical examination of early childhood caries (ECC) discloses a distinctive pattern, and the teeth most often involved are the maxillary central incisors, lateral incisors, and the maxillary and mandibular first primary molars. The maxillary primary incisors are the most severely affected with deep carious lesions usually involving the pulp. In extreme cases, ECC can even lead to total loss of the crown structure. The early loss of primary anterior teeth may result in reduced masticatory efficiency, loss of vertical dimension, development of parafunctional habits (tongue thrusting, speech problems), esthetic-functional problems such as malocclusion and space loss, and psychologic problems that can interfere in the personality and behavioral development of the child. In addition, trauma to primary anterior teeth can result in displacement injuries such as luxation, uncomplicated or complicated crown fractures, or discoloration of teeth. In any of these clinical situations, parents often seek for esthetic rehabilitation of the primary teeth of their children.

Esthetic requirement of severely mutilated primary anterior teeth in the case of early childhood caries has been a challenge to pediatric dentist. In the last half century, the emphasis on treatment of extensively decayed primary teeth shifted from extraction to restoration. Early restorations consisted of placement of stainless steel bands or crowns on severely decayed teeth. While functional, they were unesthetic and their use was limited to posterior teeth. Over the last two decades, there has been an explosive interest by adults in esthetic restoration of their compromised dentition. Similarly, a higher esthetic standard is expected by parents for restoration of their children's carious teeth. With the growing awareness of the esthetic options available, there is a greater demand for solutions to unsightly problems such as early childhood caries, malformed and discolored teeth, hypoplastic defects, tooth fractures and bruxism in children. This chapter highlights the different materials available and the various means of approach in restoring primary anterior teeth.

Among restorative treatment options, biological and resin composite restoration either by means of direct or indirect technique and prefabricated crown are mentioned in the literature. Severely decayed primary teeth in anterior region may not be able to withstand occlusal forces if restored with conventional cements. Therefore, the use of full coverage anterior crowns in such cases is more cost-effective and a viable option. Treatment for restoring primary anterior teeth is shown in **Flowchart 49.1**.

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Textbook of Oral Medicine and Radiology



Tapasya Karemore

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aims to make a sincere effort in providing the best learning experience of the subject for the undergraduate dental students including dental health professionals of other specialities. Every topic covered has been kept abreast with updated knowledge and written in an easy to understand format, along with the special impetus to the clinical implications. The book also has many significant features such as •dealing with case histories of various disorders, •treatment options and •frequently asked questions in the examinations at various universities.

Newer areas of interest in the specialty like •history taking, •laboratory investigations, •dental therapeutics, •geriatrics, •forensic medicine, •physiotherapy in dentistry and •advanced imaging have been included as newer attractions.

Authors from across the globe have contributed their chapters in an attempt to help the readers acquire knowledge in oral medicine and radiology and build their confidence in diagnosis and management of various oral and maxillofacial conditions.

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ARTIFICIAL INTELLIGENCE IN DENTOMAXILLOFACIAL RADIOLOGY

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Healthcare and dentistry could be transformed by artificial intelligence (AI). There has recently been a lot of interest in the development of AI applications. Because of its compatibility with image processing methods, dentomaxillofacial radiology (DMFR) falls under the purview of these applications. Among the studies conducted using radiological images are classification and segmentation of teeth, automatic marking of anatomical structures and cephalometric analysis, determination of early dental diseases, gingival, periodontal diseases and risk groups, diagnosis of certain diseases, such as osteoporosis that can be detected in jaw radiographs. AI research will make significant contributions to DMFR in the future. The goal of this book is to discuss the most recent AI-based studies in the field of DMFR.

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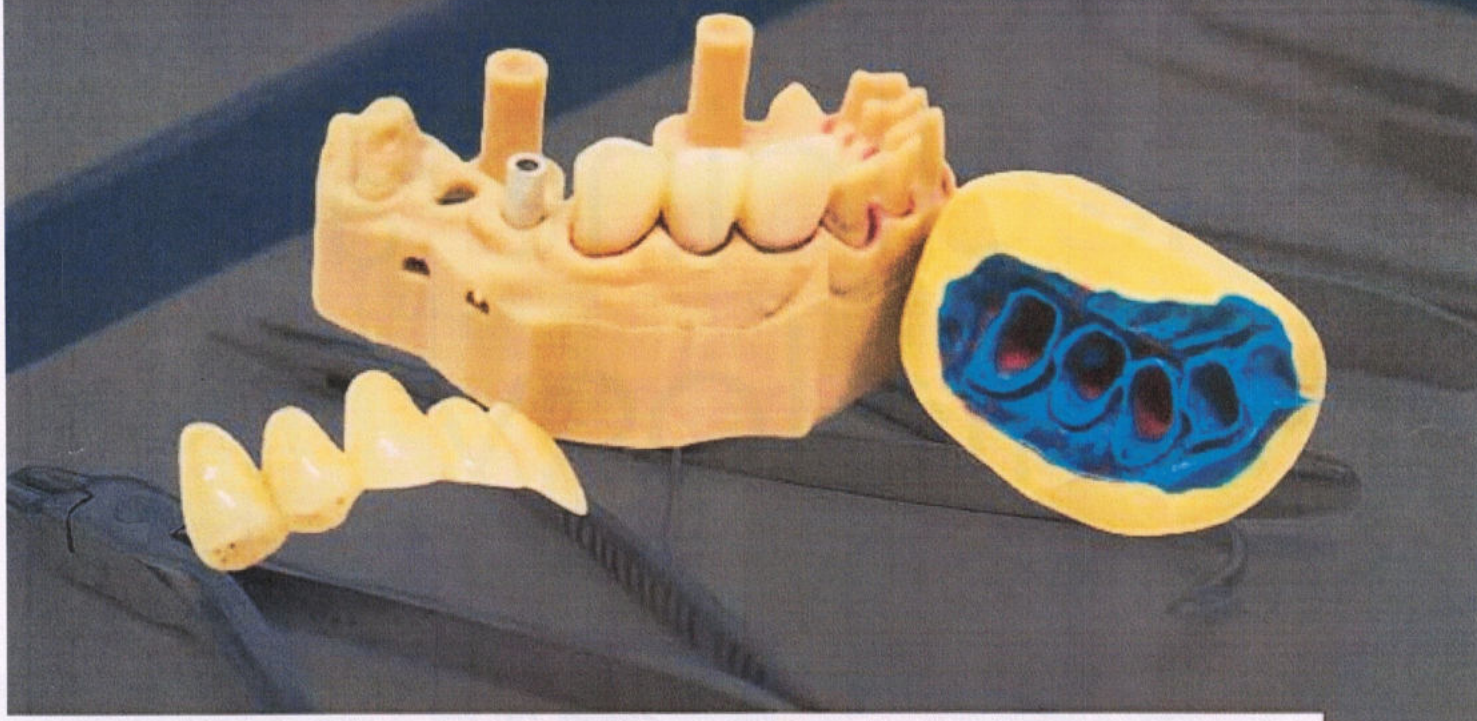
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Dr.Puneeta Vohra has done her post graduation from Sumandeep Vidyapeeth university Gujrat in 2010 in subject of Oral Medicine and Radiology. She has done many national and international scientific publications and has been actively particiapting in teaching of post-graduate students at SGT University.She has presented many scientific papers.

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Oral Health- A mirror of systemic health

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