



Restoration of Tooth Crowns: A Comprehensive Guide to Dental Crown Procedures

Sharon Kaur*

Department of Prosthodontics, Aligarh Muslim University, Aligarh, India

*Corresponding Author: Sharon Kaur, Department of Prosthodontics, Aligarh Muslim University, Aligarh, India; E-mail: sharon.1kaur@gmail.com

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Description

When it comes to dental restorations, tooth crowns play a vital role in preserving the structure, function, and aesthetics of damaged or compromised teeth. Whether due to decay, fractures, or cosmetic concerns, dental crown procedures offer a reliable and long-lasting solution. A dental crown, also known as a dental cap, is a custom-made prosthetic device that covers the entire visible portion of a tooth above the gumline. It restores the tooth's shape, strength, and appearance, providing protection and support for weakened or damaged teeth.

Porcelain-Fused-To-Metal (PFM) crowns: These crowns consist of a metal substructure covered with a layer of porcelain. They offer excellent durability and natural aesthetics, as the porcelain can be color-matched to the adjacent teeth. However, over time, the metal substructure may become visible at the gumline, compromising the crown's aesthetics.

All-porcelain crowns: These crowns are entirely made of ceramic or porcelain material, offering superior aesthetics and a more natural appearance. They are an excellent choice for front teeth and individuals with metal allergies. However, they may be less durable compared to PFM crowns and may be prone to chipping or fracture under heavy biting forces.

Metal crowns: These crowns are made from various metal alloys, including gold, silver, or base metal alloys. Metal crowns provide exceptional strength and durability, making them suitable for molars and teeth subjected to high biting forces. However, their metallic appearance may be less desirable for visible teeth.

Zirconia crowns: Zirconia is a strong and aesthetically pleasing material used in dental restorations. Zirconia crowns offer excellent durability, natural translucency, and are less likely to cause allergic reactions. They are an increasingly popular choice for both front and back teeth restorations.

Evaluation and treatment planning: The dentist assesses the tooth's condition, discusses the patient's concerns and treatment goals,

and determines whether a dental crown is the appropriate treatment option. X-rays and impressions may be taken to aid in the planning process.

Tooth preparation: To accommodate the crown, the dentist removes a portion of the tooth's outer surface, including any decayed or damaged areas. The amount of tooth structure removed depends on the type of crown chosen. Local anesthesia is administered to ensure the patient's comfort during the procedure.

Impression taking: After tooth preparation, an impression or digital scan of the prepared tooth and surrounding teeth is taken. This impression serves as a mold for the dental laboratory to fabricate a custom-made crown that fits precisely in the patient's mouth.

Temporary crown placement: While the permanent crown is being fabricated, a temporary crown is placed to protect the prepared tooth. This temporary crown is usually made of acrylic or resin and is secured with temporary cement.

Crown fabrication: The dental laboratory uses the impression or digital scan to fabricate the permanent crown according to the dentist's specifications. The choice of materials and shade is discussed with the patient to achieve the desired aesthetic outcome. Once the permanent crown is ready, the patient returns to the dental office for its placement. The dentist removes the temporary crown, checks the fit and appearance of the permanent crown, and makes any necessary adjustments. The crown is then permanently cemented onto the prepared tooth using dental cement or adhesive.

Avoiding excessive force and habits: Patients should avoid biting on hard objects, such as ice or pens, as well as habits like teeth grinding or clenching, which can damage the crown. If teeth grinding is an issue, a night guard may be recommended to protect the crown.

Regular dental check-ups: Routine dental visits are important to monitor the condition of the crown, assess the underlying tooth and gum health, and address any issues promptly. Dentists can identify signs of wear, decay, or complications and provide necessary treatment or adjustments.

Conclusion

The lifespan of a dental crown depends on various factors, including the patient's oral hygiene practices, biting forces, and the material used. On average, dental crowns can last between 10 to 15 years or longer with proper care. The restoration of tooth crowns plays a significant role in maintaining dental health, functionality, and aesthetics.

Understanding the dental crown procedure, types of crowns available, and the importance of aftercare can help patients make informed decisions and achieve long-lasting results.

Consulting with a trusted dentist and adhering to good oral hygiene practices are important for preserving the integrity and longevity of dental crowns, ensuring a confident smile and optimal dental health for years to come.

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