

Case Report

A new approach of making preliminary impression in completely edentulous patient: A clinical innovation

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Making impressions is an important part of every dental practice; it's often overlooked in both its importance and economic impact on our practices. An efficient and predictable preliminary impression often yields to well fitting prosthesis. To achieve similar goals, clinical tip is presented herein utilizing a combination of materials.

Key words: Admix, impression compound, preliminary impression

A complete denture impression is a negative registration of the entire denture bearing, stabilizing, and border seal areas present in edentulous mouth. The term 'make an impression' describes more accurately what we are trying to accomplish: to evaluate the anatomical structures and limits in the oral cavity with our eyes and fingers, then to shape and mold the impression material into a negative likeness of those structures.^[1]

The art and science of impression making is an ancient endeavor.^[2] With numerous impression material available for dentists to reproduce the oral structure with great accuracy and detail, ultimate choice of impression material is dictated by handling properties, working time, flow, elasticity, cost, odor and other such properties. Material used most frequently for complete denture preliminary impression is modeling plastic, often referred to as impression compound. In general, impression compounds are a mixture of waxes, thermoplastic resins, waxes, filler, and coloring agent.^[3] Another formulation of thermoplastic compound is commonly termed as green stick material. It is primarily used for border molding procedure. The different colors of impression compound reflect slightly different thermodynamic behavior, i.e., they soften and harden at various temperatures and thus provide more or less tissue detail. Brown or red impression compound (cake form) tends to soften at lower temperature but is not as accurate as green stick compound, which softens at slightly higher temperature but provides for greater detail for border molding purposes.^[4]

Difficulties encountered by the dentists while using

impression compound for preliminary impression frequently include inadequate flow and thus poor reproduction of fine surface details,^[5] short working time leading to quick setting and ultimately prolonged chair side time.

Therefore, an accurate, easy to learn and rapid approach is thereby being presented using a combination of materials to make a preliminary impression.

Making the impression

1. Impression compound - cake form (DPI products) and green-stick form (DPI products), in the ratio of 1 cake to 1/3 stick, are softened in a bowl of water at 70-75°C.
2. The admix is folded on itself and kneaded into a homogenous mass.
3. The admix is then loaded to the stock metal tray and formed to contour the shape of the ridge. (maxillary and mandibular edentulous ridges).
4. Once the tray is loaded it is tempered for few seconds in the warm water.
5. The tray is then placed in the mouth, centered over the residual ridge and impression is made.
6. After the material hardens, tray is removed. Impression is inspected for surface details and reproduction of anatomy of residual ridge foundations [Figures 1 and 2].

Advantages of the admix

1. Sufficient working time to handle the impression material.



Figure 1: Maxillary admix preliminary impression



Figure 2: Mandibular admix preliminary impression

2. Increased flow to record surface topography of edentulous mouth.
3. Reduced chair side (clinical) time.
4. Rapid and easy to master.

CONCLUSION

Making an accurate preliminary impression for an edentulous patient within time range has always been a challenge. A simple and rapid approach of making the same is hereby presented through this article permitting the dentist to mould a preliminary impression with sufficient viscosity yet with ample working time. This may enable the operator to fashion the preliminary impression in a single operation with practice.

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