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## D.D.S. Help

### Tips for Great Impressions

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#### Tips for the Dental Assistant

- ◆ Pre-fit the tray to the patient before adding the material. This technique will help determine if the tray will seat properly to help ensure an accurate impression.
- ◆ Apply the correct adhesive to all internal surfaces and the perimeter of the impression tray. Let the adhesive dry completely before adding the impression material.  
*Helpful Hint - Perforated trays are designed to work without adhesive. The material oozes through the perforations in the tray and holds the material in place.*
- ◆ Make sure the openings of the auto-mix cartridge are not blocked. Express a small amount of material before placing the mixing tip.
- ◆ Keep the tip of the syringe buried in the expressed material during loading to minimize bubbles.
- ◆ High temperatures and humidity reduce working and setting time.
- ◆ Do not use a fast-setting formulation (e.g. tray material) with a regular-set formulation (e.g. wash material). It could lead to distortion.
- ◆ The surface (e.g. tabletop) you use to mix putty needs to be cleaned, disinfected, and debris removed before use.
- ◆ Due to its rigidity, indent the surface of the putty in the area of the preparation to allow the light-body to flow properly around the preparation.

- ◆ Patients should be sitting upright for all impressions to ensure proper occlusion and minimal burn-through.

#### Tips for the Clinician

- ◆ As the material begins to set, the viscosity of the impression material increases and the capture of detail decreases. This is especially important for fast-set materials.
- ◆ Extrude a small amount of light-body material, with the tip on, before placing intraorally.
- ◆ Using a circular motion, extrude light-body material in one movement around the circumference of the preparation base to ensure proper occlusion. Continue the circular motion until the preparation is covered.
- ◆ Select a tray of adequate size and shape; pre-fit the tray to fully seat the tray in the mouth.
- ◆ Keep the tip of the syringe buried in the expressed material to minimize bubbles.
- ◆ Seat the loaded tray in a timely fashion. Movement of partially polymerized material will cause internal stresses leading to an inaccurate impression.
- ◆ Removal of an impression before complete setting will cause distortion.

## Tips from the Dental Lab

- ◆ Communicate with your lab. Many quality control issues are due to poor technique.
- ◆ Use a quality material. Typically, a more costly impression material is using higher quality raw materials. A better material leads to better results.
- ◆ Use a uniform amount of impression material in the tray. High spots and low spots can cause distortion on the final impression.
- ◆ Ask your lab if they prefer to pour the model. Many do and they will use the material they prefer.
- ◆ When taking an impression, put a 2" x 2" square of gauze opposite the preparation. This will help balance the occlusion and minimize burn-through.
- ◆ Patients with erupted third molars are not good candidates for posterior closed-bite trays. The lack of space and proper occlusion may result in inaccurate articulation.
- ◆ Material should be uniformly distributed in and supported by the tray.
- ◆ Margins should appear clear and sharp.
- ◆ All viscosities of material should blend with each other.
- ◆ Fine detail should be clearly recorded with no major visible defects.
- ◆ Impression adhered to the tray.
- ◆ No burn-through.  
*Helpful Hint - Check for tray-to-tooth contact in the impression. If any portion of the tray is visible it can lead to inaccuracy of the impression. Take another impression.*

## Sources of Distortion

- ◆ Anatomical irregularities in the mouth (tori) can interfere with and distort a closed-bite tray. Hand trimming a tray or making a custom tray can help seat the tray fully in the mouth.
- ◆ If a patient has a strong tongue, avoid using a closed-bite tray. There is a greater chance of a distorted impression.
- ◆ Leave the impression in the mouth until the material is completely set. Removing the tray too early could result in distortion.

## Evaluating the impression

The clinician should use loupes or magnification to examine and evaluate the impression before sending it to the lab. Areas to evaluate are:

- ◆ Homogeneously mixed impression material  
*Helpful Hint -Using the mixing tips that come with your impression material can help with providing a homogeneous mix. The tips are specifically designed to meet the mixing needs of each product.*