



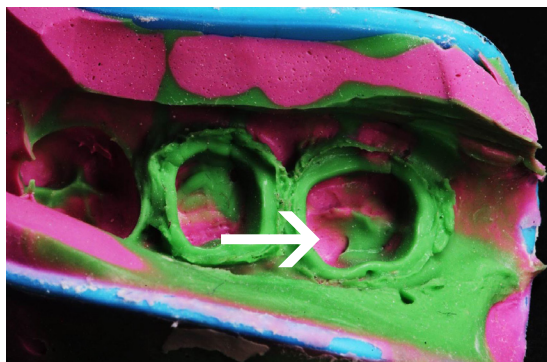
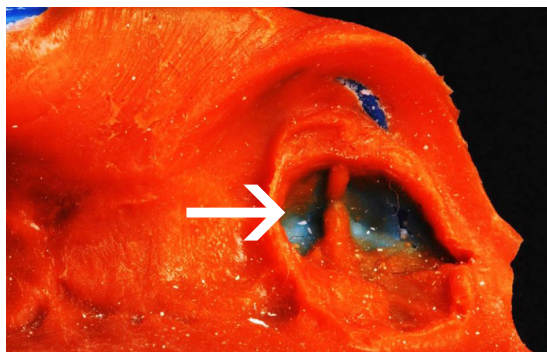
Common Impression Issues

By Lee Ann Brady, DMD

Despite the fact that we take impressions multiple times every day, it can be one of the most frustrating procedures we complete in our offices.

Precision is critical to the fit of the final restoration, and remakes can cause inefficiencies of time, money and resources.

It is estimated that an impression can take up to 7 minutes of chair time, while retraction and tissue management get less dependable with each retake. For each common issue we see with impressions, there is a reason they happen and steps we can take to minimize them.



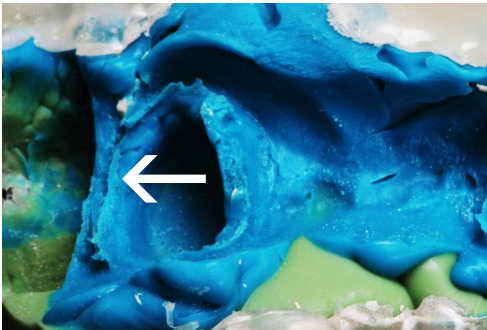
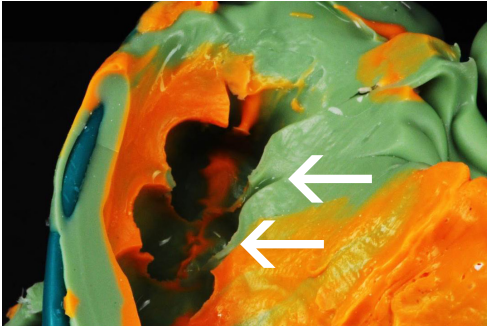
Examples of voids

Voids

A void is any place where air was trapped between the impression material and the teeth. It can occur on a margin, against the body of the prep, or on the occlusal surfaces of adjacent teeth.

To minimize voids:

- Inject a continuous flow of light body material, without pumping the gun or releasing pressure on the injection mechanism. Lessening or releasing the pressure can create suck-back, resulting in a void.
- Move completely over the place you started injecting light body, covering the original material. Often voids are a gap in the injection pattern.
- Inject light body material moving in a single continuous direction around the prep—don't start and stop.
- Cover the entire prep with light body, not just a single ring at the margin, to avoid a void between the light body and the tray material.



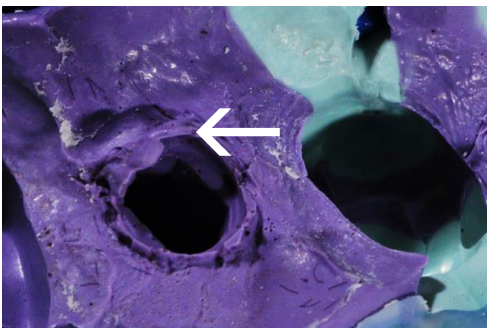
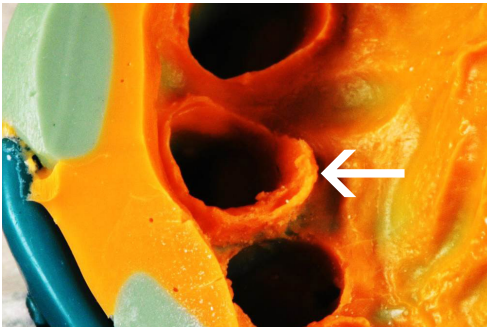
Examples of tears

Tears

Tears occur because the impression material beyond the margin (between the tooth and the tissue) is too thin and separates when the impression is removed from the mouth.

To minimize tears:

- Create adequate space for the flash, the portion of impression material that goes beyond the margin. A minimum of 1mm in thickness is the goal.
- When using a two-cord technique, make sure the full diameter of the top cord is visible around the tooth. Any area where the tissue flops over the top of the cord, you will miss the margin or the material may tear.
- When using a laser or electrosurge: Make sure when you trough you create a 1mm wide space between the inside of the gingival tissue and the external tooth surface beyond the prep.
- Use an impression material with good tear strength.



Examples of ledges

Ledges

A ledge, also commonly referred to as a shadow, occurs where the impression of the margin seems to have happened twice in two different spots. Usually, this happens when trying to “fix” a void and reseat an impression, or when using a two-stage impression technique.

To minimize ledges:

- Never try and “fix” a void or missed margin by placing additional light body and re-seating an already set impression. It is extremely difficult to get the original impression fully seated.
- When taking a two-stage impression, utilize a spacer during the seating of the tray material, or wiggle the first stage in the mouth to create space for the light body.
- When taking a two-stage impression during the second phase, make sure to fully seat the first stage and tray and express any excess light body.
- When taking a one-stage impression, make sure that neither the light body on the tooth nor the tray material has set prematurely. Begin injecting material onto the tooth when the tray is halfway loaded.