Refresh Your Impression Techniques

You've made your share of bridge and crown impressions. But with 80% of most impressions containing at least one notable error, it's worth brushing up on. Read more

More precise control, less procedure time.

Aquasil Ultra Cordless Tissue Managing Impression System is designed for less stress by removing the retraction process in most cases for faster, simpler and predictive impressions.

See How

The Key to Successful Indirect Restorations

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Creating Success: Best Indirect Challenges with Best Practices

Tired of cord and paste? Try new Aquasil Ultra Cordless. Request Demo
Tips for Minimizing Errors In Crown and Bridge Impressions
By: Dr. Sridhar Jangavala

An exact impression affects the accuracy of the definitive cast. This is because inaccurate prosthetics with good marginal fit, proper interocclusal contacts, and contour can avoid complications. Therefore, ENRIGHTLY Caulk introduced Aquasil Ultra Gentle Tissue Management Impression System. It is ideal for impressions of crowns and bridges (see www.aquasilultratissue.com). This new system included elastic bandages, a second soft-tissue and wash-intruments with improved tear strength, improved aesthetics against wear, fine particles, and a comfortable pain style instrument, instrument loading such as tissue management, tray evaluation, and material placement would not generally result. Impressions with eliminated errors may be reduced. According to a notable study, 81% of impressions by the laboratory technician at least one identifiable error. 3 of the most common errors seen in this study were: air bubble at the tissue line, pressure of the tissue on soft tissue, and air bubbles at the tissue line. Let’s take a look at how the factors listed above (tissue management, tray evaluation, and seating) influence in impression making and ensure practitioners can use these errors to consistently record optimal crown and bridge impressions.

Tissue Management
Tissue management during crown and bridge procedures begins with proper design, set-up, and amalgam preparations. This requires careful tissue management to properly surround the gingival margin and achieve fluid control. Contour, sulcular gingival preparations may result in both tissue displacement and more aggressive fluid control to create an environment that can be easily maintained.

There are several techniques used by dentists to create sufficient tissue displacement and fluid control for proper crown impressions. These include mechanical retraction using gingival retraction cord, chemical agents for gingival retraction, retraction ribbons, and surgical techniques such as electrosurgery or laser. In some cases, the practitioner may need to use a combination of these techniques, such as a prep design, or from line treatment, gingival contours, and esthetics.

Aquasil Ultra Gentle Tissue Management Impression system is designed to be used without the need for retraction cord or retraction paste in most cases. However, proper fluid control, i.e., excellent water, saline or laser is still highly important and should be maintained before removing the first impression. The extension and alveolar boundary (tip, Hamabond, Sulfur hardener) may be recommended to facilitate fluid control in these cases.

Tissue Selection and Seating
Closed tray is used for soft tissue, double arch silico rubber impression material are popular choices for many dentists. They can be effective when used for the right case. If the index tip and primary index are in the optimal seating, then the clinician can use a closed tray to try. For more invasive cases involving a bridge, more than two units in the mesial roots, or severe bleeds where there is no terminal abutment or mesial root—always use a full arch stock or injection tray.

When placing the impression tray, the practitioner should take special care to align the try so that it is parallel to the occlusal plane, and seat the tray along the edge of the teeth. Avoid seating the posterior of the tray first, as a common problem in alginate impressions. When trays are not seated along the axis of the teeth, roots and image can result. It is also recommended that clinicians practice seating the tray prior to placing the impression. If a case like this is used, ideally the tray can be removed and remade in minimum intermaxillary and does not shift their jaw to the tilted side.

If the wrong size tray is selected or the tray is occluded incorrectly, two errors that occur frequently: the patient may bite or the tray may contact the patient’s soft tissue. In both instances, the impression will be recorded in an incorrect position and this may lead to an unacceptable cast and prostheses.

Material Placement
Because of factors such as access, tissue management, and allowable impressions work time, the placement of wash material around the preparation may be challenging. Existing techniques that are considered to be physically demanding and may allow for back bite displacement or tissue contact and might be used to root these cases, placing the material directly into the tissues and keeping the tip of the tray from contacting the tissues. The use of wash material can prevent errors that include air bubbles at the final line or voids at the final line.

To improve wash material placement, it is recommended that practitioners go around the teeth of interest and extra-evaluating anything at different locations. Practitioners may also consider purifying the wash material into an adjacent tooth, when the interest is dominant so as not to contact with the preparation. By doing this, an air bubble or void occurs, will be less in a less accessible area away from the prepared tooth.

Conclusions
The new Aquasil Ultra Gentle Tissue Management Impression system offers some critical features to help practitioners make better impressions. When used in the optimal sequence, the accuracy of the impression provides an extensive environment of the features of this new system. The alginate-based material has a light consistency, is easy to use, and can be used in a variety of ways, such as impression materials, to further enhance positive outcomes in the field of esthetic restorations and well-fitting crowns.

For more information about Aquasil Ultra Gentle Tissue Management Impression System visit www.aquasilultratissue.com or call 1-800-72-DAULK

References