



There's finally a breakthrough in impression making.

Today, we discuss the stress, issues and errors associated with the impression making procedure. And, how DENTSPLY Caulk is changing the procedure with a new impression system that manages tissue and records impressions in one step. [READ MORE >>](#)



The first retractionless impression procedure. A breakthrough in impression making is finally here. Aquasil Ultra Cordless is the first Tissue Managing Impression System that allows dentists to make an impression without retracting tissue with cord or paste in most cases.

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Tissue Retraction Has Its Ups & Downs

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Caulk Talk Tip: Impressions

Impression materials with low viscosity and higher tear strengths can record accurate margins with an ability to obtain tear-free impressions.

NO CORD. NO PASTE. TRY IT AND GO CORDLESS YOURSELF. [REQUEST DEMO >>](#)



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Figure 1



Figure 2

Introducing an easier process for achieving outstanding crown and bridge impressions.

By Jason H. Goodchild, DMD

A recent study found that 89% of impressions made had one or more observable errors; the most common error was voids or tears at the finish.¹ Despite advancements in almost every facet of impression-making, dentists are still faced with three major challenges when attempting to record conventional crown and bridge impressions: correctly managing the soft tissue, placing material precisely around the properly prepared tooth, and dispensing both injection and tray materials into the mouth within allowable working times.

A NEW DELIVERY METHOD

DENTSPLY Caulk has developed Aquasil Ultra Cordless Tissue Managing Impression Material and digit power™ Dispenser as a means for dentists to precisely place material for improved crown and bridge impressions without the need for retraction cord or retraction paste. The digit power™ Dispenser is a pneumatic impression device that is compatible with most dental units. (Figure 1) It connects to an air line at the dental chair via commonly available connectors and utilizes digit power™ unit-dose cartridges. Instead of loading a backfill syringe or squeezing the 50mL impression gun, dentists are now able to simply step on the rheostat to express material while holding the impression device in a pen-grip. The small diameter intraoral tip on the impression cartridge allows placement directly into the sulcus or around a dental implant. (Figure 2) Different sized impression cartridges are available for either single or multiple-unit cases.

Aquasil Ultra Cordless Tissue Managing Impression Material is designed for use with a single-step dual-viscosity impression technique. Both the tray material and the wash material for this system have been formulated to provide several advantages compared to Aquasil Ultra. First, because the wash material is intended to be placed around the prepared tooth without the use of cord or retraction paste, it is designed for flow into sulcus widths of less than 0.2mm without distortion or tearing. Compared to Aquasil Ultra the tear strength of Aquasil Ultra Cordless Tissue Managing Impression Material has been improved to prevent rips or tears at the impression margin. Additionally, to meet the needs of dentists adopting newer technologies the materials have been optimized for digital scanners. Figure 2 shows the digit power™ Dispenser being used to capture a final impression for tooth No. 19.

An important feature of the Aquasil Ultra Cordless Tissue Managing Impression Material is the elimination of errors due to working time/setting time violations. Exceeding the working time and/or setting time of an impression material can result in many different errors. Some examples include: incomplete or inaccurate marginal reproduction, tearing, pulls/drips, lack of coadaptation, and others. The digit power™ cartridges are designed so that the entire impression cartridge can be expressed within the material's intraoral working time and practitioners will still have enough time to seat the tray properly. The intraoral working time of the single-unit cartridge is 35 seconds while the intraoral working time for the multi-unit cartridge is 1:00 minute; the working time of the tray material is approximately 1:15 seconds. Mouth removal times for the single and multi-unit cartridges are 3:00 minutes and 4:30 minutes from the start of mixing, respectively.

References

- 1 Samet N, Shohat M, Livny A, et al. A clinical evaluation of fixed partial denture impressions. J Prosthet Dent 2005;94:112-7.