Impression Taking & Restoration of Crowns Using the Simpler System

While impression taking over implants requires greater accuracy than over teeth, it is also easier. Teeth are surrounded by a periodontal membrane which can adapt to minimal casting inaccuracies. Osseointegrated implants do not have a periodontal ligament and are not mobile. Any loads or stresses posed by discrepancies in the castings will be transmitted to the surrounding bone and can cause bone necrosis and/or loss of integration.

Impressions can be taken either of the implant body itself or of the abutment attached to the implant. However, it is much easier to take the impression of the body. Metal analogues must be used in the impression when pouring up the model. For Crown & Bridge procedures, you have the choice of using a standard Simpler Implant Analogue or Simpler Dowel Pin Analogue. We recommend the operator use the Simpler Dowel Pin Analogues, found exclusively with the Simpler System as they could reduce lab fees by as much as 10%.

Although impression taking for Crown & Bridge over dental implants can be accomplished with either the Open Top Tray Technique or the Direct Impression Technique, we feel the Direct Impression Technique is easier and just as accurate.

Direct Impressions are taken using the Simpler Direct Impression Coping either 3.25 mm (S9031D), or 4.0 mm (S9032D) and the associated Impression Coping Screw 3.25 mm (S9013), 4.0 mm (S9014).

These components have a hex configuration on the bottom to index with the hex configuration inside the implant. They also have a wide flat area on the supra-implant portion parallel with one of the flats on the hex configuration. These flats ensure the impression and the final Crown Post is indexed in the Direct Impression Technique.

When fabricating a bridge over a natural tooth to an implant, prepare the tooth abutments immediately prior to taking the impression of the implant. The impression of both the implant and the natural tooth are taken at the same time.

Direct Impression Technique

1. Use a custom impression tray to fit over the area to be impressed.

2. Remove the Simpler Healing Abutment (Tissue Former) from the top of the implant body in the patient.

3. Insert the appropriate diameter (3.25 or 4.0 mm) Direct Impression Coping into the top of the implant body ENSURING THE FLAT ON THE FACE OF THE CROWN POST IS FACING TOWARD THE BUCCAL.

4. Insert and tighten the appropriate Impression Coping Screw, either a 3.25 mm or 4.0 mm using the Simpler 1.3 mm Alan Key, until snug.

5. Using the previously selected impression tray, try in the tray to confirm adequate clearance around the Impression Copings.
6. Using a medium body polysiloxone impression material (i.e. Impergum), fill the tray and syringe the impression material around the Impression Copings and seat the tray.

7. When the impression material has set, remove the impression from the mouth. The Impression Copings will remain entrapped in the implant, not the impression.

8. If using a triple tray, the triple tray impression should include an accurate occlusal bite, an impression of the opposing arch as well as the selected arch.

9. Remove the Impression Copings from the implant and immediately replace with the Simpler Healing Abutment back into the top of the implant body in the patient. The Healing Abutment maintains the patency of the hole through the mucosa while the crown is being fabricated by the lab.

10. Select the shade and send all of these to the dental laboratory for processing.

11. Prior to pouring up the impression, insert the Impression Coping into the corresponding Analogue. The analogues are accurately machined to replicate the top of and the internal configuration of the implant.

12. Hold the Impression Coping in place using a 3.25 or 4.0 mm Crown Post Screw.

13. If using the Dowel Pin Analogue (DPA), insert the bottom tapered end of the DPA into the plastic DPA sleeve until the flat ridge of the DPA fits snugly on the top of the sleeve.

14. Snap the Impression Coping into the impression ensuring the Coping is seated.

15. Pour a layer of soft tissue acrylic sufficient to just cover the top of the analogue.

16. Once the soft tissue acrylic is set, pour the rest of the impression in working plaster.

17. Once set, unthread the Crown Post Screw from the Impression Coping and remove both from the analogue.

18. If using the DPA, the DPA can now be removed from the model to facilitate the fabrication of the crown and replaced readily as required.

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