Shanto Dental Ceramics Ltd.

OPEN TRAY SPLINTED IMPRESSION POST TECHNIQUE ©

The following slides show an implant impression protocol designed for OPEN TRAY technique in multiple implant situations.

It is designed for ultimate stability of impression posts and is demonstrably the most accurate way to transfer the inter-implant relationship from the mouth to the lab manufactured implant model. Providing that the impression post has reasonable draw while connected, it can be used with any implant system available on the market.

The protocol is, in the following photographs, demonstrated on a stone model, but is intended for intra oral use:

1. Implant sites with healing caps removed.

2. Open Tray Impression Posts are placed in the conventional manner as stipulated by the manufacturer. After Impression Posts are placed, it is imperative that an x-ray be taken and examined to verify that all posts are appropriately attached to the implants and properly seated.

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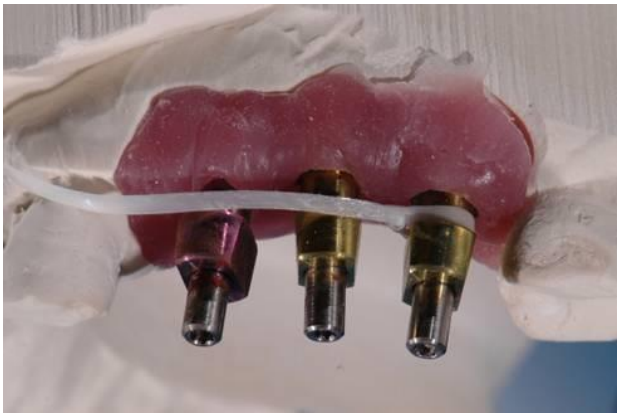
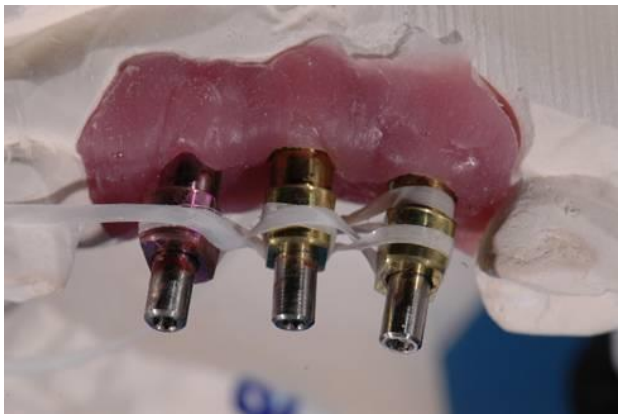
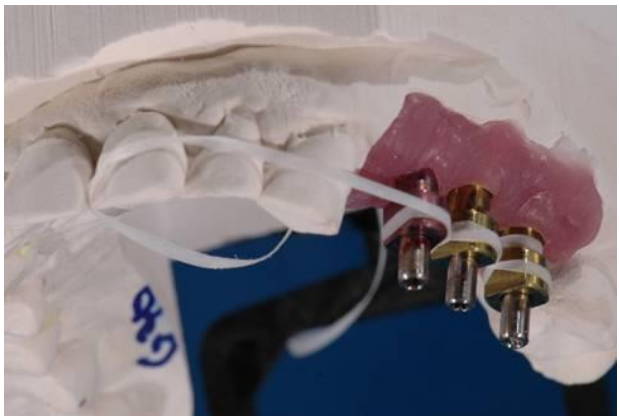
3. Use a piece of floss to create a slip-knot loop and tighten the slip-knot around one of the impression posts.



4. Wind the floss around the impression posts in a “figure-eight” type manner.



5. Tie-off the end of the floss by simply jamming it in between a couple of existing teeth, so that it does not unwind itself. (In case of a completely edentulous situation, the end of the floss can be tacked to one of the impression posts with a small drop of super-glue or equivalent.)



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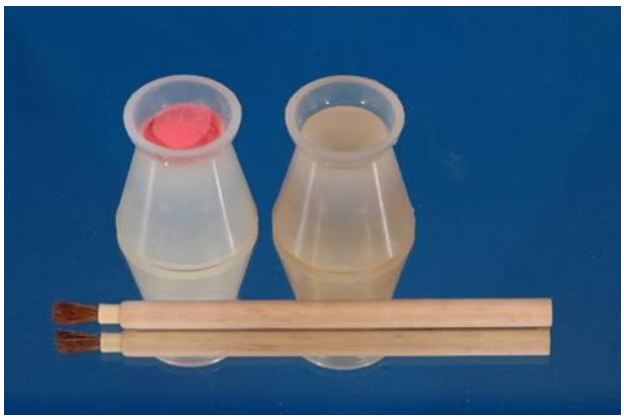
6. Obtain a kit of methyl-methacrylate pattern resin. It must be a type of resin that has LOW shrinkage while setting (do not use light-cured composites. Light-cured composites shrink too much). The Pattern Resin showed in the picture is manufactured by GC, is available through most retail dental supply companies and has only 0.17% shrinkage.

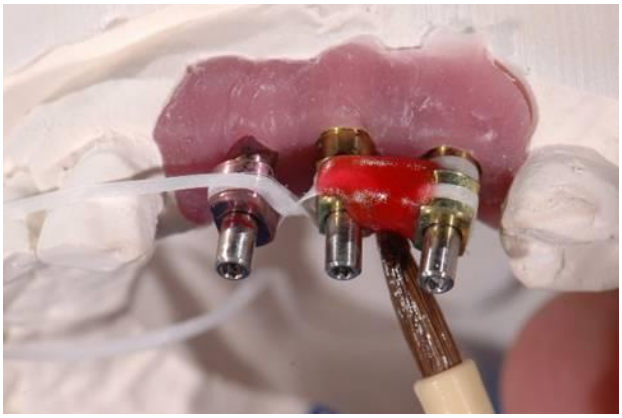
7. Use two silicone containers, one for the resin powder and the other for the resin liquid, as well as a small brush. (All these things are included with the GC Pattern Resin Kit).



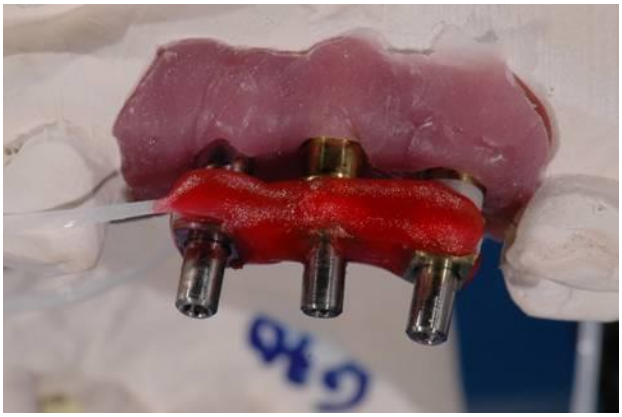
8. Dip the brush in the liquid.

9. Dip the wet brush in the dry powder to draw up a small drop of liquid/powder mixture.

10. Place the liquid/powder droplet on the floss in between the impression posts.



11. Repeat the process to fill the space between the impression posts with pattern resin. When all the posts are joined together with pattern resin, it should look something like what you see in the photograph. Please make sure that none of the pattern resin flows on to human tissue or into the screw heads.



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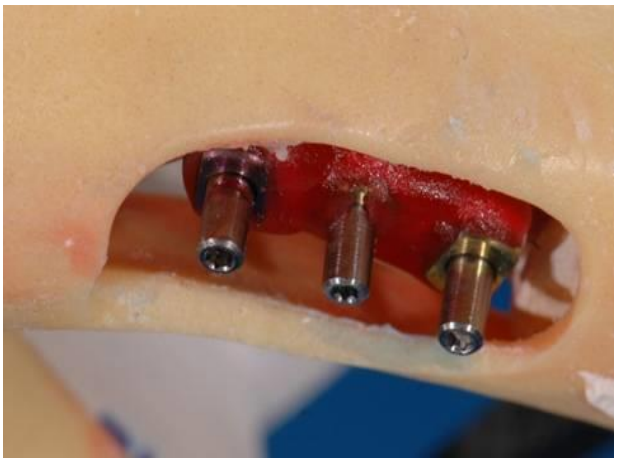
12. **IMPORTANT:** You MUST use a diamond disc (or equivalent) to CUT the pattern resin in between each impression post, then lute the whole piece back together again, (one solid piece) with small amounts of pattern resin (this eliminates the 0.17% shrinkage factor).

13. Now you can use your open tray impression tray (custom tray is recommended).
    Make sure that the impression material (light body) flows completely around the impression posts and UNDER the pattern resin to fill out the space between the resin and the tissue.



14. Fill up the tray with heavy body and take the impression in a conventional manner, making sure that you have access to the screw-heads so that you can easily unscrew the screws and remove the tray from the mouth with all posts firmly lodged inside the tray. We recommend that you COMPLETELY remove the screws from posts and tray. This makes it easier to remove the tray without damaging the splint. Just remember to put the screws back into their respective channels before sending the tray to the lab.

Send this tray to the lab for attachment of analogs and the manufacture of implant model. Since the impression posts are joined together, the chance of obtaining an implant model with 100% identical inter-implant relationship as in the mouth is very high.

Any frame work(s) and restorations made on such an implant model (whether splinted of not), have a much better chance of fitting exactly the same way in the mouth as it does on the model.

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