

# Impression Techniques for Predictable Single and 2 Unit Implant Restorations



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One of the most frequent problems that can cause costly remakes, waste precious chair time, and inconvenience the patient is a poorly positioned implant abutment. Telltale signs that this is the case are:

- A tight contact or contacts on the crown
- An open contact or contacts
- A combination of both
- A twisted crown or abutment
- An open bite ½ - 1 mm (usually due to the abutment not fully engaging the implant).

How can you tell? If the abutment and/or crown fits the model, but does not transfer to the patient's mouth in an identical way, then one of several things has occurred - the abutment did not fully engage the head of the implant; the impression transfer coping was not secure in the impression; or the impression coping (I.C.) was not properly placed back into the impression (in lab). This last option is most common with closed tray impressions. With these impressions, material may be trapped or the impression warped during in-lab repositioning of the I.C. back into the impression - a situation that open tray impression techniques avoids.

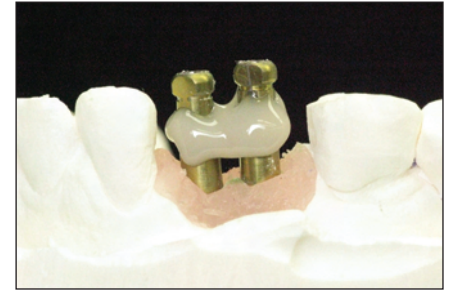
To minimize the challenge of poorly positioned implant abutments, we recommend the following protocol:

- Remove the healing cap/abutment.
- Place the I.C. on the implant fixture head.
- Take a radiograph or x-ray.** This cannot be stressed enough to prevent the possibility of tissue being pinched between the implant fixture and the I.C. and to make sure that the I.C. fully engages the implant head. This problem occurs most often with external hex implants, but can still happen with internally engaging

implants (especially when the implant is placed more than 1 mm subgingivally).

- Use a full arch open tray impression technique** as it is the most accurate technique, simply because it keeps the I.C. locked in the same position in the impression thereby avoiding the risk of repositioning problems. Closed tray techniques are indicated in a tight vertical situation where a screwdriver is not possible. Never use a triple tray. It may save time and a few dollars now, but can cost you dearly later as it is the least accurate method.
- After verifying the open tray impression coping/s seats by x-ray, **if additional stability is desired**, wrap light cure acrylic around the impression coping and engage the adjacent teeth (similar to a partial clasp). Proceed with normal impression protocol, and finally check the firmness of the impression coping in impression. If it is unstable, it is best to re-impress at this time.'
- Medium body impression material** such as Monopren, Take 1, Impregum, Reprosil, etc. is recommended. Avoid light body material as it is too flexible.
- Physically test the I.C. after the impression has set up and been removed from the patient's mouth. If it moves in any way take a new impression immediately.
- For those systems that have plastic copings (such as Straumann, or Nobel Biocare's Easy Abutment), it is important to make sure that the I.C. 'snaps' into position and that you can twist it without dislodging.

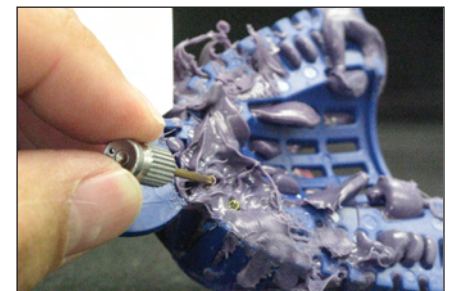
Following this protocol as a standard will result in a more predictable restoration.



Impression transfer copings are luted together for stability and strength.



Check x-ray before impression to ensure full seat.



Open top of tray to unscrew impression pins.



Impression transfer copings are locked in impression to avoid warpage and reduce mistakes at time of model pour.