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# 'Closed Tray' vs. ‘Open Tray' Implant Impressions

By Greggory Kinzer (/spear-review/author/greggory-kinzer/) on December 1, 2016 | (/bookmarks/bookmark/33898)

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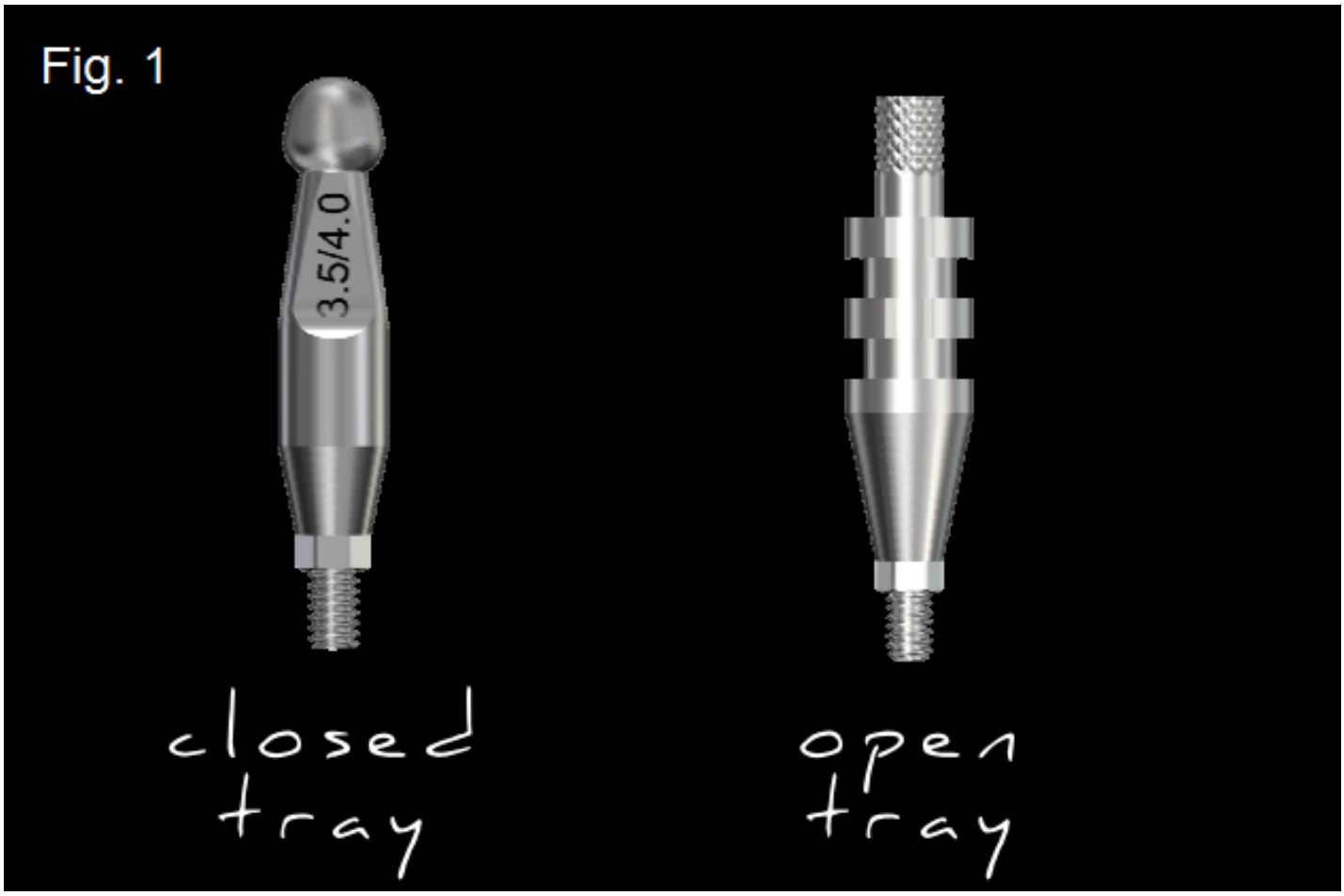


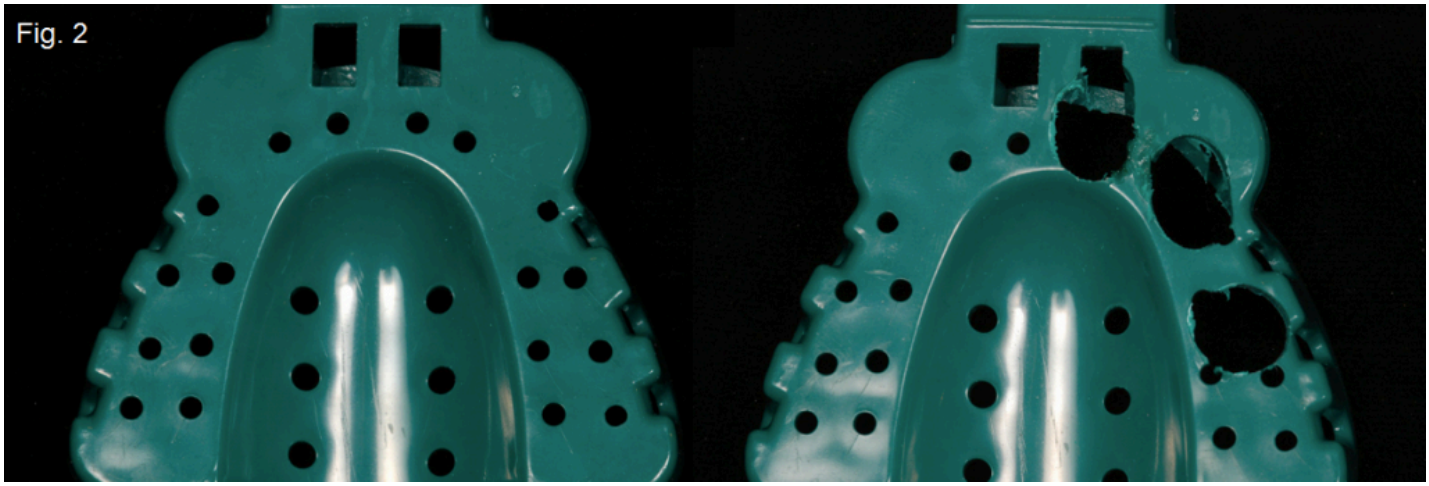

Impression copings for implant (https://www.speareducation.com/spear-review/category/implants) prosthetics generally come in two distinctly different types: *closed tray* or *open tray.* (Figure 1)

If you are like most clinicians, using an open tray impression coping may bring a little bit of anxiety with it since you must make sure you can find and access the impression coping screw in order to remove the impression. If you have ever locked an impression in the mouth, you know exactly what I mean! It is for this reason that many clinicians would rather use closed tray impression copings.

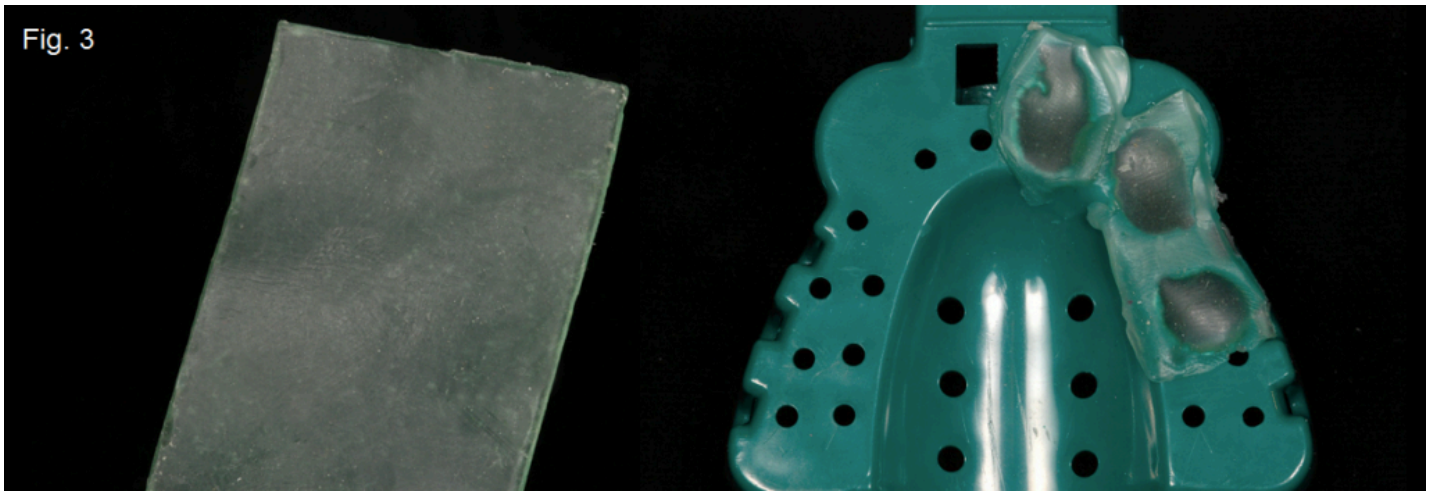
Can these different types of impression copings be used interchangeably? The a clinical situation. A recent systematic review of the literature by Papaspyridakos light on the use of the different implant copings.

In general, for single-unit partially edentulous patients, *closed tray* and *open tray* impression copings can be used interchangeably. However, if you have multiple implants that will be splinted in either partially or fully edentulous patients, *open tray* impression copings will be more accurate. It has also been shown that *splinting* the impression copings in the mouth (ie. with resin) can improve the accuracy as well.

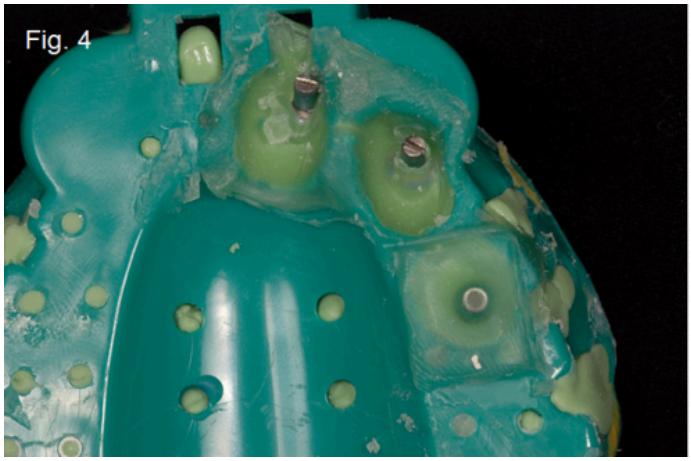
If you have multiple implants but plan on restoring them as single-units, you may choose to use *closed tray* impression copings for ease of use. However, if the implants are malaligned it is advisable to use *open tray* impression copings since the misalignment of the implants may lock the impression in the mouth if *closed tray* impression copings are used because of their lack of draw. In general, if you have a question on accuracy of which one to use, the use of an *open tray* impression coping will typically be more accurate.

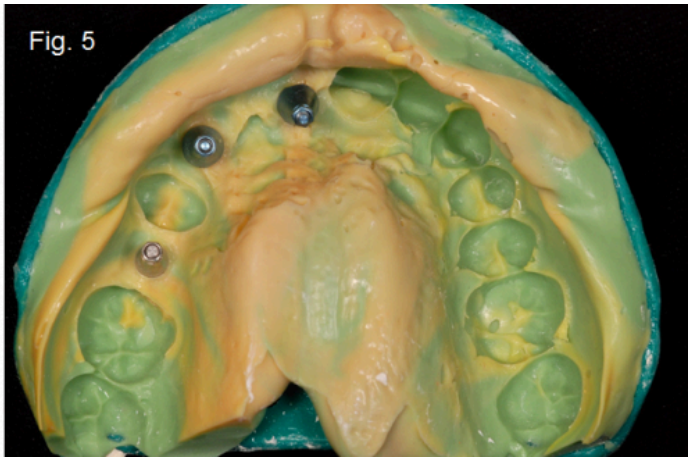



So, how can we make using *open tray* impression copings easier and take away some of the anxiety of finding the impression coping screw? One way is to use some baseplate or boxing wax over access the holes in the tray. Begin by taking an impression tray and cutting holes in the appropriate areas to allow access to the implants. (Figure 2)




The tray can be tried in the mouth at this point to make sure the holes are in the correct locations. Next, place some baseplate or boxing wax over the holes that were cut in the tray. (Figure 3)




The wax will be indented by the screws of the impression copings so that when you seat the tray, you will be assured that all of the implant screws can be accessed. In this figure you will see that the most distal impression coping screw is indented in the wax, but has not yet been accessed. Removing the wax in this area when the impression material is set, allows easy access to the screw. (Figures 4-5)

## Reference

1. Int J Oral Maxillofac Implants. 2014 Jul-Aug;29(4):836-45. doi: 10.11607/jomi.3625. **Accuracy of implant impressions for partially and completely edentulous patients: a systematic review.** Papaspyridakos P, Chen CJ, Gallucci GO, Doukoudakis A, Weber HP, Chronopoulos V.

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