

IMPLANTS

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Who gets to decide where the implants go?

By Steve Ratcliff (/spear-review/author/steve-ratcliff/) on September 4, 2015 | (/bookmarks/bookmark/385)


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I hear from surgical specialists on a regular basis that they wish GPs would take more responsibility for designing implant (https://www.speareducation.com/spear-review/category/implants) cases. They often feel as though the restorative treatment plan is up to them and they don't always feel like they have the best or the right answers.

Today, the standard of care in many communities is a CBCT (cone-beam computed tomography) for diagnosis of bone architecture and treatment planning implants.

Personally, I think it is the responsibility of the restorative dentist to help the surgeon know where the tops of the teeth will be so that the implants can be planned from the crown down.

If you are newer to the treatment planning process, this method will help you and your surgeon get results that are more predictable. You can also click here for more on dental treatment planning (https://www.speareducation.com/spear-review/2015/06/build-a-better-treatment-plan-phasing-restorative-procedures-over-time).

Let's consider this case with missing upper posterior teeth. The patient wants implants to replace the missing second premolar and first molar. My job as the restorative dentist is to give my surgeon a way to know where I want the final tooth position to be.

I can do that several ways: digitally, with a diagnostic wax-up or with denture teeth attached to a model. This tooth position can then be transferred to a radiographic template that is used during the CBCT.



In these images you can see the edentulous space. By making and mounting a set of diagnostic casts, we can answer the primary question – “Where should the teeth be when we are done?”

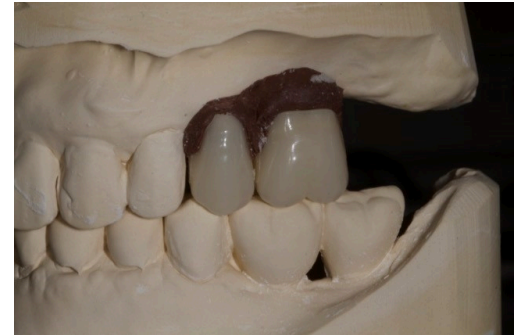
Mounting the models can help us understand some important points. Is there enough restorative space at least 7 mm from the implant platform abutment and an adequate thickness of restorative material. We also need to be sure that there is at least 7 mm of restorative space mesio-distally.



In this case, denture teeth were used to determine size and spacing of the future restorations. They are luted to the cast with rope caulking from the hardware store. The caulking is shaped to mimic the ideal gingival level of the final restoration. That mock up will help the surgeon understand the requirements for both hard and soft tissue prior to making a final treatment plan.

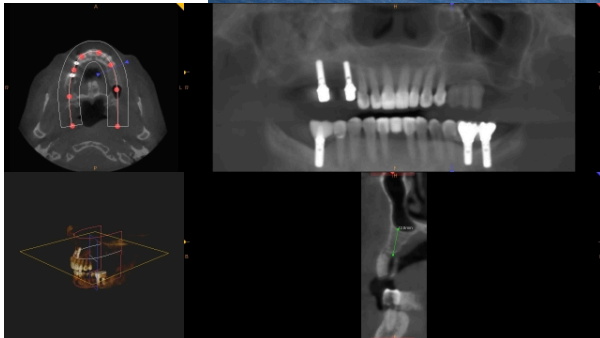
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This mock-up is then used to create a radiographic template using a mini-star



machine and 1.5 mm splint material. Once the material is formed over the model, a hole is drilled in the approximate position of the screw hole for the abutment. This template is placed in the patient's mouth at the time the CBCT is done and allows the restorative doctor and surgeon to make treatment-planning decisions about hard and soft tissue.

The holes in the template show up as radiolucent channels that serve as a reference to tooth position relative to implant platform.



This same radiographic template can easily be converted to a surgical guide if that is the preference of the surgeon. The holes are enlarged and metal sleeves can be inserted that match drill sizes the surgeon needs for specific implants.



This process is collaborative care at its best (<https://www.speareducation.com/spear-review/2015/07/who-is-in-your-sandbox>) as it allows the restorative dentist to take responsibility for the tooth position and the surgeon to take responsibility for creating an environment where the implant has the greatest chance of success in supporting the final tooth position.



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(Click here for more articles by Dr. Steve Ratcliff (<https://www.speareducation.com/spear-review/?author=sratcliff>).)

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