Ten Legacy Implants for Overdentures Using Meissinger Ridge Expansion Kit

This is a beautiful example of implant placement with a narrow ridge. Log on to the message boards of Dentaltown.com to participate in this discussion and thousands more.

I have used this kit several times and I really like it. It works well with very thin ridges and was worth the money. This case is a 55-year-old white female with long-standing CUD/CLD [complete upper denture/complete lower denture]. Severe bucco-palatal resorption in the maxillary arch. Plan is for six implant-retained maxillary overdenture using retentive ball/clip assembly or locators with palate-less design. Lower plan is for a locator-retained OVD [overdenture] with four implants.

**Figure 1:** Frontal view.
**Figure 2:** Complete dentures are in place and are very loose.
**Figure 3:** Maxillary frontal view.
**Figure 4:** Occlusal view.
**Figure 5:** Initial width of bone is smaller than 2.5mm for 3.7 implants to be placed.
**Figure 6:** Mandibular occlusal view.
**Figure 7:** Begin with crestal/circular saw drill and section crest with very fine saw drill, then initial pilot drill and use A1-F1 to expand ridge width. Do one at a time and sequence these so you don’t completely fracture the ridge. Take your time with these. Small flap is elevated. Rotate sites as you go, don’t do one at a time to completion.

**Figure 8:** Notice outfractured bone is still intact.
**Figure 9:** All three done.
**Figure 10:** Same.
Figure 11: Remove non-cutting splitters to see ridge width improved significantly.

Figure 12: Implants in place, which are 13mm long 3.7 legacy implants and 11.5 length for the mesial one.

Figure 13: Cover screws placed.

Figure 14: Same for left side done.

Figure 15: Number 11 site was too thin and bone began to break, so I moved distally and placed third implant posteriorly.

Figure 16: Number 11 site is too thin and endangers breaking entire plate of bone.

Figure 17: Lower arch has very thin crest but thick as you go apically.

Figure 18: Same frontal view.

Figure 19: 1:1 handpiece and crestal reduction, used bone to graft lingual of LR posterior fixture.

Figure 20: Four implants placed – 3.7 x 13mm fixtures.

Figure 21: Closure, no attempt at primary for UR needed.

Figures 22 & 23: Closure with healing caps in place. The tissue will eventually expose these on its own.

Figure 24: Post-op panorex.

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Figure 25: Two-week post-op. Patient really wanted to wear lower denture.
Figure 26: Placed three MDL Intra-Lock 2.0 implants so she could wear lower denture.
Figure 27: Attachments placed.
Figure 28: Reline lower denture.
Figures 29 & 30: Snaps to place. I really like these mini-implants to help retain denture during healing phase.

I have always done block grafting for cases like these and I really like this technique, which saves the patient tons of surgery and money. I am interested to hear if anyone has used the splitting kit from ACE, which is motor-driven. Delicate surgery that takes some time to perform, but is very rewarding. ■ scott

continued on page 28
“agsanders”  
Posted: 6/3/2008  
Post: 4 of 35  

Very nice. I have the same system. It’s pretty sweet. It has really cut down on my grafting. I have a lot more confidence in the ridge expansion than I do grafting. Have you tried mandibular splits using the little splitting wedge things? I hate to say it, but I thought the instructions were a little poor. When you use the circular saw blade things, are you using the diamond coated blade or the one with little teeth? I personally prefer the one with teeth. Also, are you using the ratchet to drive the expanders or a handpiece? As usual, sweet case. ■ sanders

“doctored”  
Posted: 6/3/2008  
Post: 5 of 35  

Nice case Scott. I am most impressed by the limited flap reflection on the maxillary placement. Less is often more and this case clearly demonstrates that! ■ Ed

“dmd3000”  
Posted: 6/3/2008  
Post: 6 of 35  

Serikson,  
Beautiful case as usual. On cases where I expand a ridge less that is less than 2.5mm, in the maxilla, I have found loss of bone on the buccal of the implant. This has happened to me on two cases. I have changed my protocol to include grafting with NuOss or other slow resorbing graft. Have you found this to be the case on any of your cases? Thanks for always sharing such interesting cases. ■

“mandm_sudz”  
Posted: 6/3/2008  
Post: 8 of 35  

Great case Scott. Do you have any worries over the very long span of the bar on the maxilla, looks like premolar to premolar, or are you planning any anterior implants? ■ martin m

“DrNusspli”  
Post: 9 of 35  

Scott,  
Very nice. Did the patient have to go denture-less for a while? With all the expansion you had in the maxillary. I can’t imagine an existing denture could’ve been relieved enough to accommodate. ■ PB

“serikson”  
Posts: 11, 12 & 13 of 35  

Sanders,  
I use the circular saw with the teeth and it works very nicely and yes, the instructions were very minimal with the kit, but the kit is high-quality. I have never done a split with this on the mandible. Lastly, I use the ratchet to drive the insertion tools.  
Martin,  
I have not had this problem with bone resorption yet and the case is planned for separate attachments, not a bar. I hope this helps.  
PB,  
We will reline her denture in several days and time will tell if she can tolerate it with the buccal expansion. If not, a new interim CUD will be indicated. ■ scott

continued on page 30
Gregory C. Mayo, DDS
“browndawg”

Freakin’ excellent, Scott. What type of anesthesia do you use on the lower? Do you give bilateral IAN blocks? I have been having anesthetic issues in the lower anterior lately doing extractions/immediates. Again, beautiful. ■ Gregory C. Mayo

“dr_dex”
Post: 15 of 35

Beautiful expansion. Did you use a stent and if so what kind? The pano appears to show apices of implants in sinus. You didn’t mention sinus lifts. Is the pano accurate? Do the expanders also lift the sinus floor? ■ Dex

“serikson”
Posts: 16 & 17 of 35

Greg,
Infiltration anesthesia only, with bilateral mental blocks. Hope this helps you.
Dex,
I did not use a stent/template. The implants were infractured into the sinus slightly using the splitting tools and osteotomes. ■ scott

“DrNusspli”
Posted: 6/9/2008
Post: 18 of 35

Scott,
I hope you’re still following this thread.
I was looking at the case Jerry Smith posted with a sinus lift done using burs to remove the last bit of bone before lifting, and comparing to the lift you got here using the expanders. Do you find that the infractusure that you get from the rotary expanders is predictable, and that drilling through the bone or removing with piezos is not necessary most of the time?
I have always infractured with osteotomes and a mallet, but got my first set of expanders and I’m wondering if they will accomplish the lift on their own or if I should plan on needing to “break through” in other ways.
Thanks. ■ Paul

“serikson”
Posted: 6/10/2008
Posts: 19 & 20 of 35

Paul,
I really don’t know if the spreaders will lift the bone, but it seemed to work in this case. My preference would be to use the osteotomes to lift the bone, but this case was so fragile that I really didn’t want to break the bone.
[Posted: 7/16/2008]
I added some photos of mini-implants used for this case. Patient was tired of going without lower denture, so I placed three mini-implants for small fee ($900) and she is now wearing lower teeth as well as upper teeth. I was very happy with these implants for transitional usage. ■ scott

Richard Hayden, DDS
“rhayden”
Posted: 7/16/2008
Post: 21 of 35

Scott,
Fantastic. What if the minis integrate? Are you not at all concerned about the CUD? I think this woman will want to have some lip support and likely teeth that are not centered on the ridge. The ridge is thin so tissue support will not be optimal here. Is there worry about too much cantilever forces when she bites into something since there is no tissue support from palate either? ■ Richard
Scott,

Beautiful case! What do you mean do it one at a time? In photo 10, is that the expansion drills on the implant site or are those the implants? They only have four expansion screws right? I just got mine (actually BTI kit) and pretty excited to use it for the first time. Was there any vertical release of the bone made?

Yes, I did them one at a time. These are the expansion devices, not the implants in place. The kit comes with about 10 expansion units. There was no vertical release of the bone made. scott

Question(s): What is the difference between using the device to expand the ridge or just some ridge split chisels? I have been using a .4mm piezo insert that makes a .5mm cut and expanding with a ridge split chisel. Is it more controlled...nicer to the patient? Is the device reusable? What is the cost?

Thanks.

All I can say is that these instruments work very nicely and offer a slow, controlled expansion, versus the chisels which I have also used that work nice too. The kit cost me (I think) about $900-$1,000.You get about 10 expanders. I really can't quote you on any literature which states either one is better, but I personally like the kit better than the piezo and chisels for this application. It seems that the chisels might be more aggressive and can possibly fracture the plate more easily than these tapered instruments. They are indeed much nicer to the non-sedated patient. Less banging, but that really doesn't matter to me unless you have a nervous patient who doesn't want to be sedated.

Take care. scott

Data is limited on any ridge split procedure. I might look into this on your advice. scott

“jen_limdental”
Posted: 7/17/2008
Post: 22 of 35

“serikson”
Posted: 7/22/2008
Post: 24 of 35

“hack2”
Posted: 7/23/2008
Post: 27 of 35

“serikson”
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“hack2”
Posted: 7/23/2008
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Presenters: Mark Murphy, DDS, FAGD, and Mercer Advisors VP of Prof. Services Alan Johnson
Time: 7 p.m. (EST)
Date: Thursday, July 16, 2009
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