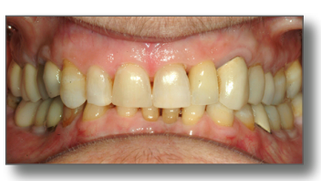
Types of Dental Wear

My dad's reconstruction was based on restoring severe dental wear. There are three main types of dental wear to consider: End to End, Pathway and Crossover. Each are handled in different ways.

End to End wear is what my dad had. This is where incisal edges and occlusal surfaces of all teeth are worn down. Either the bite has collapsed, or teeth have super-erupted to compensate without a loss of vertical dimension. The wear can be accelerated by acid erosion or abrasive foods. The bite is 'free' to move in any direction without restriction.

Pathway wear is what my mom has. This is where the movement of the jaws is restricted by the teeth. It can be a complication of a class II occlusion, or missing teeth or poor inclination of the teeth with lack of arch space. The lingual surfaces of the maxillary teeth, and the facial surfaces of the mandibular teeth can be severely worn.



The last type of wear is ***Crossover*** wear. This is where the mandible can move beyond the edge to edge position and wear is formed at angles on the anterior teeth, and / or on the facial surface of the maxillary teeth, and lingual surface of the mandibular teeth.

Phased Full Mouth Reconstruction

A few years ago I presented my dad's full mouth reconstruction case as a means of sharing the idea that opportunities are available to each of us to enhance the lives of our patients by pursuing knowledge beyond our basic dental school training.

The path I chose was through Spear Education, created by Dr. Frank Spear. Dr. Spear may be well known to some of you. But for those that don't know him, he is a prosthodontist in Seattle who now has a continuing education facility in Scottsdale, Arizona. Calling it a facility is an understatement as it is a state of the art teaching 'Mecca' with hands-on laboratory and clinical areas, in addition to a lecture auditorium, and catered breakfast and lunch. The manner in which Dr. Spear shares the lessons he's learned over his years of private practice makes hard to understand concepts manageable, and hard to achieve outcomes attainable. I took their lecture and hands on courses: a continuum of 7 trips of 3-4 days at a time over the course two years to build the knowledge and confidence to help my dad.

Regardless of whether it Spear or Kois or whichever higher end courses you can take, I hope you each will consider learning more about advanced continuing education opportunities in order to enhance your lives and the lives of your patients.

I hope that this newsletter will speak for itself. And I hope you will enjoy this follow up story.

Pamela A Nicoara DDS MSD PLLC

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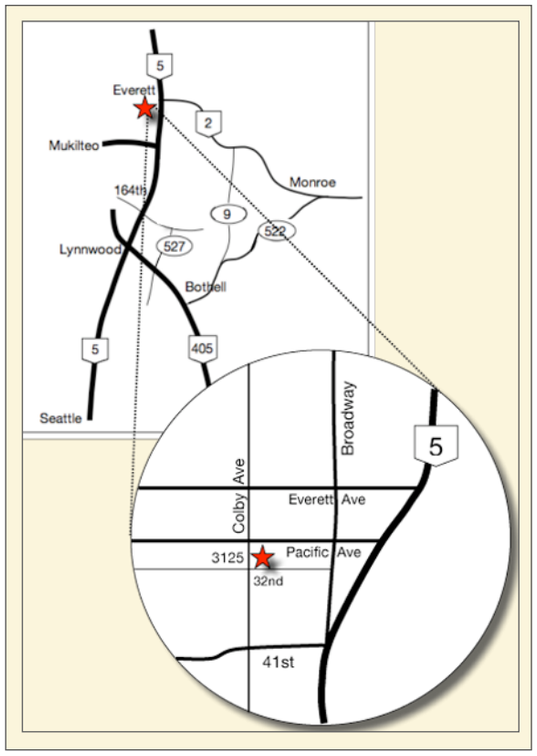

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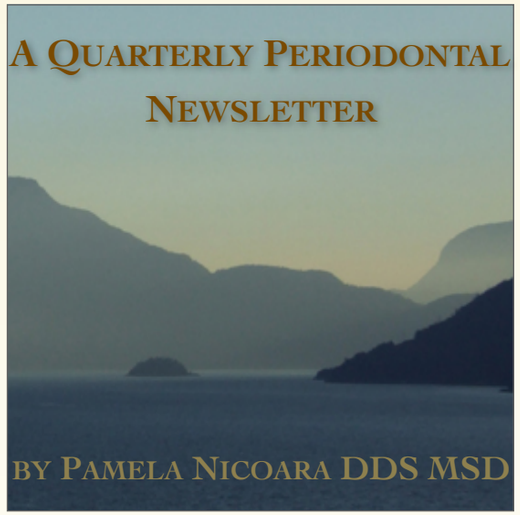
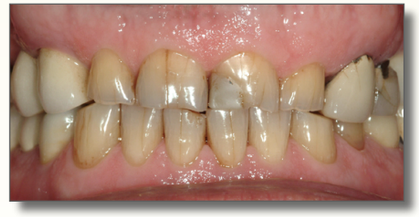
Probe Tips



Full Mouth Reconstruction
Four Year Recall



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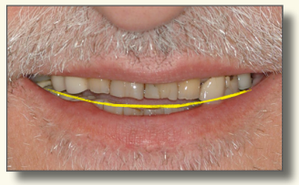
Full Mouth Reconstruction

Where I Began

For any case that is more complicated, the best place to start is with the face. Where should the teeth fit in the face?

For my dad, on full smile he showed 3-4mm of the teeth. His teeth are only 5-6mm long, so we have room to lengthen the teeth without making him look like a rabbit.

You can test out the desired incisal edge position with a mock up made from a wax up. You

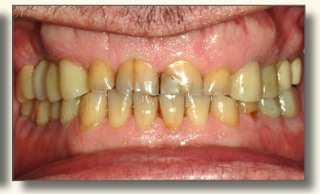


can wax up just the 6 anterior teeth to make sure you are on the right track before committing to a full mouth wax up. Below are facial photos with and without the mock up. Esthetically, longer teeth will suit him.

Bite Sized Work

The next step technically would be to make a full contour wax up from which you can temporize to a new occlusal plane. My dad's occlusion is undulating, so a new occlusal plane as well as an increased vertical dimension will be established in order to match the intended maxillary incisal edge length. In my case, because his existing full coverage restorations were from eastern Europe, I was afraid of what I'd find under them. So instead, I went one quadrant at a time removing old restorations, making sure buildups and endodontic treatments were sound, and temporizing to his existing occlusal plane. This allowed me to be comfortable taking on amounts of work that I could handle, and would also help spread out the cost of treatment for someone who cannot commit to full treatment all at once. We started November 2013.

Before

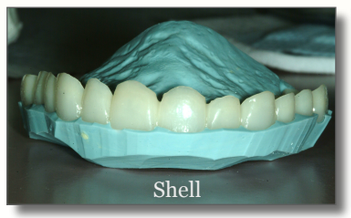


After temporization of posterior teeth

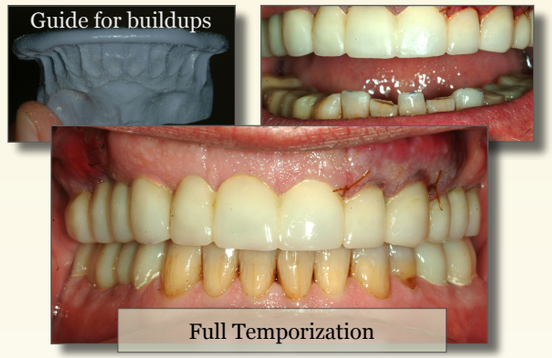
A New Vertical Dimension

Once this phase was completed, the full contour wax up was made. The next step for my dad is to prepare all the remaining maxillary anterior teeth, and fit new temporaries at the desired occlusal plane and vertical dimension. The mandible would then follow, but the mandibular anterior teeth would be built up in composite.

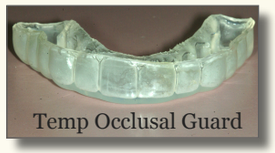
A shell was made from the wax up of the maxillary teeth that would be relined, and segmented into 3 sextants. There were 3 implants to include as part of the temporization. Crown lengthening was also done on teeth #10 and 11.



On the second day, the mandible was treated. The posterior teeth were re-temporized to a new vertical position. The anterior teeth were built up in composite using a guide from the wax up.

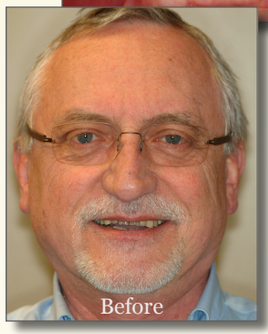


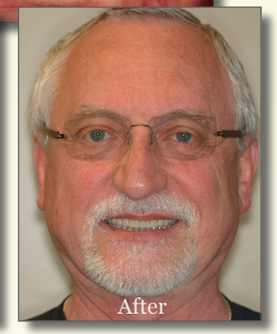
A soft 3mm biocryl occlusal guard was fabricated in order to protect his teeth in the interim. The big test now was to see if anything would break in the meantime. His temporaries were placed in November 2014 and he returned in February for final impressions. Only the implant temporaries broke due to lack of material strength (a shell filled with reline material with an access through the center to screw retain the crowns).



Final Restorations and Follow Up

Dad returned in June 2015 for cementation of his zirconia crowns and screw retained implant crowns.





The only initial complication was with the screw retained crowns on implants #13 and 14. There was material failure of the zirconia bond to the short stock metal cylinder, one soon after the other, a few months post placement. They were remade with longer custom metal cylinders with a better bond.

In addition, the crowns on #8 and 9 deboned about 3-6 months out and were re-cemented.

My biggest concern was how well the mandibular composites would hold up, particularly since wearing the acrylic occlusal guard wasn't something dad could tolerate. Apart from some staining at the composite enamel interface, everything is solid!