

Dr. Paul Belzycki - View from the Chairside - The Devil is in the Details!

Dr. Belzycki: So, she came back and tissue looks a lot better. I've got good solid cores here, but I thought the tissue in this area was a bit fragile. It just seemed not as nice shiny pink and healthy as this area and I thought this was the result of: there's a root proximity problem between these two teeth. Whether I put splinted crowns here or two separate crowns here, this will always be a problem for patient management and for us to manage in the office. Once you get your crowns here, how are you, how is anybody going to clean effectively here? And I knew that would be a problem. So again, fixing it is one thing, keeping it fixed is another. So, my thought ran towards removing this root, and this is just a previous picture that I've color corrected just for contrast so you could see it a little bit better on the screen.

Dr. Belzycki: Here are the roots in case you don't see it. There are the roots of that tooth and this tooth almost seems to overlap the buccal of the second molar. So, I thought if I could come in here and as I said [in] another post, I do root resection at my office. Sadly, I hear it's not taught at schools anymore, but it should be, but root resection is a neat little trick. So here I thought if I could remove this root, it will open up this area and it will become an area that's cleansable and manageable over the course of a lifetime. So, there you can see my thought process.

Dr. Belzycki: So just going down with a bur, cutting down into this area. I couldn't do this at the time when I addressed the surgery, when I addressed this tooth, because I would have to go through amalgam at that time when there was a flap and I don't want to use an air rotor on amalgam when I have an open flap. So, I just started troughing down at this point and that's just the gutta percha that's in the canal. So, it's a welcome landmark, I know I am half way through when I've reached that, I just have to go a little bit further. I went through the furcation and I've delivered the root atraumatically and there you can see a little bit of gutta percha from my endo.

Dr. Belzycki: Now I have to manage the roof of the furcation. I can't leave an undercut in this area. So, I'll come in with a fine diamond and I'll just start to dress this area. Not touch the amalgam but dress that area so that I've eliminated the undercut of the furcation. And this is just from a textbook where same tooth, just showing how this is done. Once you've freed up the root, you have to remove the roof of the furcation. So, you'd come in with a bur and develop that shape. So, mine's not as thinned out or as dramatic as that, it looks a little bit better than the tyodont did. Now at this point, and I did extend and grabbed the 24 as well. So, these are the original three unit-splinted crowns. And what I've done is I've hollow ground these three and I've added another crown to this unit, and I picked up my finish line. So, you can see this has to be recontoured because that is where the distal buccal root is. Now that I've removed it, I just have to recontour that area. And this is done at the time of surgery. It's a flap and then

closed, cemented in and it comes back a week later for suture removal. And you can see that's starting to heal quite nicely. That little socket just has to go on to close and then I can come back at a later date, reprepare these margins and grab an impression. And a few months later, that's exactly what happened. And now you can see the difference in the health of tissue, what it was before to what it was now.

Dr. Belzycki: So now you should ask me about implants because this is how it usually goes.

Chiraz: Well I actually have two questions. The first one is a great technique that you, that any dentists should have in their toolbox. But why did you choose to do it versus an implant? And the second one is, this is fairly complex, requires a lot of expertise. You've been in, you've been doing this for a long time. Do you think a new dentist would be able to do this? Should they be able to do this? What do they need to be able to do this?

Dr. Belzycki: Well, you have to remember when I looked like that, I was a new dentist and the learning was different. We didn't have computers, we didn't have internet, but we had textbooks and we had atlases of oral surgery and we had atlases of periodontal surgery, like the knowledge is out there. You just have to have the inclination to find it. And sure, at this stage of my career, I can cut down an entire arch with for crowns and not worry about it. But I didn't do that when I first started. I did one crown at a time and spent a long time because I knew I had a vision of what the perfect crown preparation is; they're in textbooks. What is the perfect crown preparation? And as I said, I'm a visual thinker. I'm a visual learner. So, if I look at what it's got to look like and I'm looking at the patient, I'll just keep going. And it requires developing tactile skills. You don't of school ready to roll on this, but you start slowly and you develop skills, you develop tactile sensation over the course of a few years and then you just start tackling one, doing one crown becomes doing two crowns, three crowns at a time, a bridge and you slowly develop.

Dr. Belzycki: We had no mentors back then. You couldn't call a senior dentist and say, what do I do? Cause they'd yell at you and say we taught you this in school. How did you get Dr. in front of your name? How did you graduate? It was there. Now we've got mentorship programs, we've got this platform to disseminate knowledge, but you still have to internalize it and so it's, each dentist, each new dentist, has to answer this for themselves. Do you want to grow, or do you just want to stay the way you were once you've graduated? So, I really, I'm doing this, I learned this on my own. I took good courses at the time. There was perio, prosthetics, there was some good courses in that where it taught you to dovetail periodontal surgery with prosthetics. And that's just how I learned to do this. So I can rely on my experience to know what outcome I will have before I start. I hope I have answered that question.

- Dr. Belzycki: Yes, you did beautifully. My first question to you was why go down this route?
- Dr. Belzycki: I'm sorry, I answered them in reverse, but I will answer them. Implants. I make this statement to patients: when I'm doing crown and bridge work on teeth, I pretty much know before I start, how I'm going to end up, before I pick up a drill, I know how it's going to go. Implants are a different story.
- Dr. Belzycki: The implants do heal, they don't heal. They're put in at the right angle. The angle is a little bit off. You have to fight for emergence profile. For me, implants are a last resort, not the first resort. One might say, well, this is expensive. Well, you haven't seen expensive until you dive into the realm of implants where a lab bill can be \$1,000. I just got a lab bill for a single crown, it was near \$1,200. In terms of cost and in terms of time efficiency, this patient is never without teeth. This patient did not have to go through sinus lifting. This patient didn't have to live a year or a year and a half without teeth when she couldn't manage. So never without teeth. She has a functional occlusion. She comes to my office, leaves my office, and she can carry on as she always has.
- Dr. Belzycki: So as far as I'm concerned, if I can, and she had nice long roots, so I could do this. Obviously if this was a perio issue, the roots had a poor crown ratio, etc. etc. All of that is distilled, all of that is thought about. In this case, I thought the roots are robust and long as I said earlier, if I have good crown form. Sorry. If I have good root form, if the roots are strong, perio is good, then you can do this sort of thing. So that's why I didn't go the route of implants. That's a whole different can of worms.
- Dr. Belzycki: Yeah. So basically, she didn't really need them and it was, the tooth was good enough for you to work on it and not to lose it for that matter.
- Dr. Belzycki: Yes. The important word in your question is need. That's a relative term. And everybody defines that differently. I knew that I could end up like this. I felt confident. So that's why I went this route because I've done this many times, so I'm not asking other dentists to go ahead and practice how I'm practicing. But it's something that it would be a nice idea to be exposed to.
- Chiraz: Alright. So how did the treatment of this area complete?
- Dr. Belzycki: So, with tissue that's pink and healthy, this greatly facilitates impression taking, whether you're doing this as I do it, VPS impression material and a custom tray, or you're doing it digitally, having pink healthy tissue with margins that aren't buried under diseased skin just facilitates accurate impression taking. And if I want to make restorations and I have to supply my lab with a perfect impression. So here you can see it's about as perfect as I can get it. There's no defects, there's nothing. All the margins are clean and crisp. And this is just one of the details of getting it right. As I've said before, dentistry, if it's off by a

millimeter, it might as well be off by a mile. Because it'll fail, that's from the lingual aspect, those margins. So, once I have secured, I've reprepared the teeth to get that impression. I have secured my impression. Now I'll just take those four splinted crowns and I'll hollow grind them. These are the provisionals. I'll add some flowing new Methyl Methacrylate pop that onto the teeth. And what I've essentially done is impressed the margins very accurately in this material as I have in my impression. And again, you can see I've added some impression material again, just to keep the stone away from the margin. And then I go on to carve that using sandpaper disc and an electric handpiece and trim everything away to define an accurate margin because that drives and maintains the health of tissue. At any point, if you have a provisional, which is not done properly, it will affect the health of the soft tissue. So, we're here in August, 2015.

Chiraz: Dr. Belzycki, I think we should have a post at some point in the future about how you carve those provisionals.

Dr. Belzycki: I think I did. I took a little video of it. It's kind of hard for me to do that, but I'll try. Anyways, I've got my four crowns here and my design would be to have two splinted crowns here because these two teeth are endodontically treated and I don't want them to move apart and I just want strength here. And then I would put two splinted crowns here that are separate from these two, because that's a small little runty kind of crown. And I thought if I could just tie these two together, there's strength in numbers. So again, I get all the metal copings back separately.

Dr. Belzycki: And there you can see how clean the lab works. I still like a stone model. I know it's called organic now, but I still like a stone model. I need to have that for my comfort level. I don't like doing things digitally. This design, my lab and I have developed over the course of time, took a while to get them to come on board, but I want good long surface areas for my solder, for the solder joint. And these are inserted, I just called these metal struts, they're just extensions of the metal occlusally that will be in contact with the lower arch. I find this is advantageous and important when you're doing crowns in the posterior where you've removed all of the occlusal stops, those provide a nice landmark. So again, here's the tissue. I'll be trying in those metal copings. The skin in this area continues to heal and mature over time. So, the copings are tried in. This will bulk up later on. Remember this was an extraction site. So, the bone still has to come up a little bit.

Dr. Belzycki: These are tried in, check for accuracy and then I tacked them together with just Methyl Methacrylate. I could use the red Duralay that I have also in the office. I was bringing this tooth a bit buccally just so it would look a little nicer, wouldn't have a dark shadow here. So, I send a little note to the lab. Please check if there's sufficient metal for support of this cantilevered cusp to support that

porcelain. So, I have to be responsible for everything. Lab technicians are great, but they're just lab technicians and I'm responsible for it all.

Dr. Belzycki: So here you can see the metal, these little metal struts, will just be touching. I like them a little bit long so I can put it in the mouth after I do my solder indexing, I'll just adjust the metal down so the patient feels that the bite is level and that's the landmark that the lab can build the porcelain to. And here the porcelain comes back. So, these two crowns, these two have been soldered together; they're two splinted units, two splinted units and there's a separation here, fine metal band going inter-proximally. Having the lab follow the contour of my provisionals and there you can see it again. I've probably adjusted here a little bit more once I got it back to make sure that it was open enough for the patient to clean in between. So here you can see, there's a continuity of the shape and the contour. This design is developed by me in this phase of treatment because this is proven to maintain the health of tissue. So I don't want the lab to give me something else. Give me what I've made please.

Dr. Belzycki: And this is the date of insertion, October 2015. And sometimes I'll have the lab reduce the metal if it's an aesthetic issue and I'll have that in porcelain. But in this case, I just left the metal exposed. It serves as a good landmark for me and embrasures are nice and open, easy to clean in between; that cusp cantilevered outwards, so it looks nice when she smiles. Again, where aesthetics are concerned, porcelain over metal, I don't like porcelain butt joints. I like porcelain over metal and here fine metal margin. Nobody sees back there or at least in this case you didn't. And there's the radiographs or the radiograph and you can see going back to that other case of that gal from Quebec, there's a fit and finish. These margins are spot on because I had to fight for them. Wasn't easy.

Dr. Belzycki: She came in, I have pain. Upper right, okay, well, I've got a little crack in this tooth. Yes, there's an open contact, but the tissue isn't a problem there. And I've got cracks in these two teeth. And what's termed microleakage I guess, I mean this doesn't scare me all that much if and when I see this around old restorations, it's just some [inaudible] the amalgam. But I picked this tooth to work on probably because of biting pressure or I may have just used some cold spray and we elected to work on this tooth. And I told her it could be this tooth, it could be another tooth, but let's work on this one first because it needs treatment.

Dr. Belzycki: So here you can see a small little break of the marginal ridge, a crack here again, just different views. So, I started taking this tooth apart and lo and behold, there was an occult fracture running through the middle of the tooth. And given the symptoms, I elected to do endo, so there's the endodontic treatment being performed. Again, having photographs of what these teeth look like throughout the course of treatment I find this invaluable.

Chiraz: What was the extent of decay under the Amalgam? Did you find any?

Dr. Belzycki: No, no. And I wasn't expecting to either. There was a little bit here, but it was, here you can see the color of the dentin, it looked good. But again, fracture heavy bite, patient just has a heavy bite. You have to remember she's over 50. This tooth has been functioning for some 45 years since it came in at six. So that's a lot of service for a tooth to give. So, I just restored it with some combination of materials, got my isolation and did the endo and then did, just closed up the access. So, she came back, and I elected to prepare these all these three teeth, four provisionals. I was going to put crowns on these teeth. And then I noted a crack here and I believe I went on to do endo there as well. I don't have a photograph of that, but I believe she came back subsequently and said there's another tooth that's bothering me. So, I believe that that tooth had to have endo as well. So here I am preparing tooth structure and I made provisional crowns. Sorry I don't have any other photographs of that right now. And then she came in, just let me check that date. So that was December 2015. In January, I've got pain from the lower and this film happens to be from 2013 on original presentation. You can remember that there was a little bit of that chewing gum that was there. But before I started in, this is what the tooth looked like.

Dr. Belzycki: And taking the restoration apart, there were a lot of problems here and getting down I did end up in the pulp chamber and once I got rid of the entire restoration, not a lot of tooth structure left. Endodontics was done. And there you can see my little endo treatment and the tooth was restored. I think I've put an amalgam restoration and at the time, and then I went back, four or five months later I came back to the upper first quadrant, got my impression for the crowns. And here we just went with three separate crowns and these two are zirconia. I thought I'd give that a try. So, on presentation, day of insertion again with good provisionals are respecting the margins, making sure the contours correct, the tissue is picture perfect. So, cementing these crowns in is uneventful. And then we came down to, oh, so going back to this tooth, I just took an upper arch. And again, going back to what I said before, vision, when I first started, I had that vision of that other patient and yeah, I don't need to do these teeth, but I've secured the molar areas quite nicely with crowns.

Dr. Belzycki: About a year later after I had done the endo, she was ready for me to start restoring this tooth and I thought, well I'll put a crown on this tooth as well because it's pretty much beat up also. So, getting into this tooth, there was another crack that was noted at the time. And again, when you take photographs, you can present this to a patient and say look when I have my loops on, this is what I see. This is how your teeth look, this is a significant crack. We have to address this. That goes a long way for patient acceptance, informed consent rather than saying, Oh, I see a crack and you start working.

Dr. Belzycki: I work with, there's a camera in every operatory and I'm constantly taking photographs. My patients often make fun of that. But I just find this the best way to transfer information. I'm not, I don't feel like I'm talking anybody into anything. You have a crack. You want me to fix it, you don't want me to fix it. You decide. But don't come back later, if you've asked me to put an amalgam here or composite whatever restorative material you want to use and then say, now you've made it more sore. You have a problematic tooth, so we addressed that; made my crown preparation and I sent her away after I made my provisionals and she did come back saying the tooth is now hyper. Well, there's good reason for that, that crack is going down. And I probably took a tooth that may have been on the border line and doing my crown preparation and parting energy into this tooth, I probably took a sick nerve and pushed it over the edge. So, I had to do endo for this tooth as well.

Dr. Belzycki: So again, I'm going back to splinted crowns, I get the [inaudible] back, tacking them together in the mouth. A little bit of lab work, taking a bite sometimes I'll mount them in the office. I find it more accurate than if my lab does. And then I get the crowns back, splint it together, find the metal margin and tissue looks again. Picture perfect. Making sure that there's a good embrasure space for cleaning. And those are cemented in.

Dr. Belzycki: And I thought I was a winner off and running. So that occurred, the last time I worked on her was a few years ago, but she came back just recently. Doctor, I got swelling in the upper left quadrant. And I thought, you're kidding. And she said No. And she was swollen and tender. So, I went back to the radiograph I had from 2014 and that's the current one, 2019. This, this occurred in January, February of this year.

Dr. Belzycki: And pinned it down to, and it's hard once they have splinted crowns, it's hard to discern. If they do have a problem, which tooth is the offending tooth? Because if you bite here, well you're stressing that one as well, but I sent her off to my colleague who you've seen before on the series of presentations Dr. Moncarz.

Dr. Belzycki: And he said, Paul, I think we've got an active lesion here. We have to redo the endo. And I thought dammit, you know, so, I gave him all the images I had beforehand, what I had done to the tooth so he would have an idea what's gone on in this tooth, what's the history of it. So, he could see, okay, there's a post here, there's some composite resin. I end up doing this and now you've got to do your thing. And I told him, I'll give you license. If you want to, I'll remove the crown from this tooth, you do what you have to do, get the post out, get everything out, I'll remake her the two crowns no cost. He said, Paul, let me see what I can do.

Dr. Belzycki: And what he did was working through this small opening and you know, skills. My old professor Blake McAdam said "Dentists, we're all created equal. Some

are just more equal than others." I love that phrase. Well, the fact that he could get out a post, [inaudible] the composite resin, refill those canals through such a small opening. It blew me away and I was able to just put a little plug of amalgam in there and she's off and running with the same crowns that I had put in back in 2014, 2015 and you can see how the tissue has come up quite nicely. That socket has healed. So hopefully this will not be a problem and she'll carry on. So that's what I meant about, you know, I wanted to err on trying to conserve cost. The tooth was asymptomatic. She had told me that that endo was done previously by an endodontist. So, I thought, well I needn't worry about that. Once I got rid of the decay on that tooth, but again the canal wasn't as clean as nice as it could have been, or bacteria have a way of getting in and around composite resin probably traveling up the post and there was just reinfection of that. But we were able to manage a conservative fix.

Dr. Belzycki: Well amazing, beautiful craftsmanship I must say. But also, beautiful collaboration between you and Dr. Moncarz. And yes, he was on Oasis previously. I will have a link to his presentation on this post.

Dr. Belzycki: So, this patient, as I said, managing it in segments is kind of neat. You can break up cost, break up treatment when you manage it in segments, you don't lose landmarks of occlusion. Sometimes cutting everything down, doing everything at once, there's always the fear of the occlusion going off. So, if I can keep them comfortable doing it's segmentally that's far easier for the patient. It's far easier for me.

Chiraz: So, to wrap it up, Dr. Belzycki, what are, if you can think back to the whole case, what are two or three main points that are very important to consider?

Dr. Belzycki: I've said dentistry is a tough gig. Yeah, you can make it simple by not looking and just doing it. Hey, it's the best I could do and that's that. But if you want to provide long-lasting restorations, you have to fight for every detail. If there are, if there are 10 steps involved and you do nine perfect and one not so great, it will come back to haunt you. So, it's not that it requires a lot of brain power and it's not that anything is overly difficult. It's just a lot of simple tasks need to be executed to an exacting manner to end up with a good restoration. What I've presented, if I can do it, I was just a solid B student, back then you could sneak in with a solid B. If I can do this, anybody can do it. It just takes a lot of dedication, hard work and not working towards a time schedule. If you've only allotted x amount of time to do any procedure, simple or complicated and you run into a problem, you say geez, I have Mrs. Jones, next story, got to get rid of Mrs. Smith, something has to go, something has to yield. And it's usually the precision with which which things are executed.

Dr. Belzycki: So, you have to know what the ideal is. You have to struggle towards that and you have to leave enough time for the struggling to take place and realize that it

can be frustrating trying to get a margin on that 27 where there's bleeding, there's blood and you drill a little bit, your wash, you look a little bit going back and forth. I may have spent 30, 40 minutes on just that one margin on one tooth. Cause that's what it took for me to see, isolate it and develop a solid crown afterwards. So that's one takeaway: is that nothing happens simple. If you buy into digital dentistry, you know, just go in and take a picture zap, zap zap, and the computer spits it out. And here it is to throw it in. Good luck cause you have to struggle there too. I don't know what all the ins and outs are of that because I don't practice that way.

Dr. Belzycki: I have had cad cam computer milled or computer-generated bridge done for implants and things of that sort. You have to fight there too. There are, there's drawbacks. There's problems there too. I don't know what they all are, I haven't bumped into them; I have bumped into a few and I know you still have to fight, you still have to struggle with the technician or [inaudible] or Nobel Biocare, whoever makes it. You still have to give direction cause you're the dentist and you really can't expect to accept everything that comes to you that it's going to fit perfectly.

Chiraz: Dr. Belzycki, I don't know how to thank you, really.

Dr. Belzycki: Say thank you.

Chiraz: I'll say I'll say thank you. Thank you very much for taking the time and making the effort to be here early, very early in the morning to tape this presentation. I know how much effort and time it goes into all of these. I really appreciate it and hope to continue to host you on Oasis.

Dr. Belzycki: Okay. Thank you. Bye Bye.