

## There Is No Magic Bullet in Implant Placement Howard Speaks Podcast 046

Dr. Bill Holden

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### Websites, Emails, Phone Numbers and Products Mentioned:

- I-CAT cone beam - <http://www.i-cat.com/>
- BioHorizons - <http://www.biohorizons.com/>
- Blue Sky Bio - <https://blueskybio.com/>
- All-On-4 - <https://www.nobelbiocare.com/nl/en/home/products-and-solutions/treatment-concepts/all-on-4.html>
- 3DDX Boston - <http://www.3ddx.com/>
- ROE Dental Labs - <http://www.roedentallab.com/>
- Implant Direct RePlant - <http://www.implantdirect.com/replant>
- Straumann - <http://www.straumann.us/en/professionals/products-and-solutions/surgical-and-restorative-solutions/implants.html>
- Nobel Biocare - <http://www.nobelbiocare.com/international/en/home.html>
- 3i - <http://biomet3i.com/index.cfm>

**Howard Farran:** It is going to be so fun for me today to interview a big time Townie. I mean you must have a couple thousand posts and you do, you've got 2176 posts as of an hour ago. It's amazing. You are one hell of a guy. You're Canadian, I'm up here in Phoenix you're up in Edmonton, Canada which is straight north of Denver.

In Phoenix, about every couple of years there will be an article in the paper that about 10% of the homes in any given year are sold to Canadians. My two orthodontists that I refer to, they're Canadians so I feel like I actually live in Canada because almost everybody I know down in my neighborhood is a Canadian.

I want to start in a totally different place. You've been doing dentistry for a couple of decades and before we start I know you're a legend in dental implants and we've gone from the golden age of dentistry to the titanium age of dentistry, implants and replacing bridges and I'm really excited, I really want to get into that but before I get into all of that, I want to start with- 5000 kids each year graduate from dental school and a lot of these kids are coming out and they're telling me oh Howard, you're lucky, you graduated in 1987, I came out to this economic depression.

2008 was a heel of a recession, wow, I mean I went to freshman year in college was 1980, that was one of the worst recessions ever, 21% interest rates. You were probably

in grammar school when that happened, do you remember that one? How old were you in 1980?

**Bill Holden:** I probably would have been in junior high school.

**Howard Farran:** So do you remember that recession?

**Bill Holden:** Oh yes.

**Howard Farran:** Yeah because in Kansas when interest rates hit 21% a lot of farmers couldn't make the interest payment on their debt. I had a couple of friends who's dad blew their head off because they were losing the family farm that had been in existence for a century and then I got out of school in '87, that was the stock market crash, Black Monday, then there was the March 2000, the internet bubble popped.

Anyway, a lot of people wonder- and now there's corporate dentistry. There's Rick Workman, Heartland Dental has 1000 dentists employed with 2000 hygienists. Steve Thorne's got 500 offices. Is the future, after doing dentistry for two decades, does dentistry look bright and promising to you? If your own daughter was graduating from dental school this year, would you say good job, welcome to the team, this is going to be great or are you like wow?

**Bill Holden:** No, dentistry is a great place to be. It's interesting because I think you're getting a bigger divide over time between the dentists who could survive in any economy and the dentists who are going to go with the flow, and if the flow is not good it's not good for them. You know what I'm saying?

**Howard Farran:** Oh I know and that was well said, I like the way you said there's dentists who could go with any economy and there's dentists who are ebbing and flowing with the masses.

**Bill Holden:** I was at the Vancouver MaxiCourse recently and I was chatting with some dentists there and somebody was crying the blues because he's in an over serviced area with a million dentists and some other guys who aren't even licensed, fighting to wars to cutthroat dentistry, but then I talked to him and I said there's places starving for dentists a two hour drive from here, why don't you go out there three days a week and build up your profit. Oh no well my wife's family is here and stuff and my sympathy level dropped a little bit when I heard that. I'm sorry but, I don't know about you but when I started out I worked hard and built things up. It didn't just happen.

**Howard Farran:** Were you born and raised in Edmonton and then set up down the street from the hospital, you were born in or did you go to where there is more need?

**Bill Holden:** When I graduated I was an associate in a mall practice learning how to do dentistry and I cut my teeth the same as everyone else working weird hours and seeing emergencies and the same as most people do and it's not a bad way to go. Anyone who sets up right out of dental school I can't figure out how you would do that.

**Howard Farran:** Yeah so there's a dentist who can survive in any economy and then there's dentists ebbing and flowing- when I think of you I think of a high in dentistry, I think of implantology, I mean if I need an implant I'd go to Canada and have you do it. Where did you pull out and separate from the average Joe, Dick and Harry and Jane and become, am I describing you right? Would you say your practice is heavily focused on implantology?

**Bill Holden:** Oh yes, I'm full time implants.

**Howard Farran:** I mean that's the International Congress for Oral Implantology diploma in your background, right to your head?

**Bill Holden:** That's my ABOI actually.

**Howard Farran:** So how many, did you place an implant in dental school?

**Bill Holden:** No.

**Howard Farran:** So when did you get into this?

**Bill Holden:** My story, the Reader's Digest version anyway, is I did general dentistry for umpteenth years and about ten years out of school, maybe seven or nine years out school, I went and took the place your first implant course, just to learn to do it on my own patients, keep my brain from turning to mush, and I enjoyed it and when I got back to town here I found I had the odd person asking me for help with cases because at that point at least there was a lot of the specialists were maybe charging generous fees sometimes and sometimes the results weren't ideal and sometimes people were having trouble getting in to see them and etc. so I started doing the odd case to help my friends and then it kind of grew and grew from there. Organically I wanted to take more courses, doing more cases, eventually it built and built and I had to do referrals and one day I woke up and said you know what? I have two full time jobs here. I've got my high end general practice and I have my implant practice and if I want to see my kids grow up, I've got to choose one.

So then I set out about finding an associate or partner to take over my general practice because I didn't want to kick these people to the curb, right? They're still all my friends, I still see them around the office here so I brought in another guy and he took over my general practice. I went to full time implants.

**Howard Farran:** What year was that?

**Bill Holden:** It's got to be seven or eight years now.

**Howard Farran:** So 2007?

**Bill Holden:** Seven or eight years I've been doing it full time to exclusion and now he's seeing overflow from my practice so he's got 70-80% implants now, he's going to probably follow the same cycle where he has to give his general practice away at some point too.

**Howard Farran:** Do you consider yourself an implantologist?

**Bill Holden:** Yeah if you wanted to call it that.

**Howard Farran:** Sorry to be ignorant, but you are in a different country, does Canada follow the same nine specialties as recognized by the American dental association?

**Bill Holden:** Absolutely. Implant dentistry is not a recognized specialty in Canada. I'm a general dentist whose practice is limited by choice to implant placement, restoration, grafting.

**Howard Farran:** I only want to say one thing about that- being 52, been out for 27 years, there's a lot of specialist where the dentists refer you to and doesn't realize they never went to endo school. They can't say I'm an endodontist, but they can say practice limited to endodontics and I've got to tell you, I've had about five over the years that were in a small town of about eight general dentists and they just loved the endo and they didn't really like the restorative and one day they just told all their friends I'm only doing endo.

Their friends said really? And a couple of the biggest legends in endodontists never went to endo school. One was John McSpadden in Chattanooga, Tennessee and the other one was the inventor of Thermafil in Tulsa, Oklahoma- the richest endodontist in the world, he owns Thermafil which is owned by DENTSPLY and he just, same thing.

So is that what you're doing? Are you kind of, implantology will obviously be a specialty like dental anesthesia will obviously some day, so are you just saying practice limited to implantology?

**Bill Holden:** Yeah. That's what I am, I'm a practice limited to implant dentistry.

**Howard Farran:** Are you getting referrals from other general dentists in Canada?

**Bill Holden:** My practice is all by referral.

**Howard Farran:** All by referral? That's just amazing, I don't think there's anybody like that in Phoenix, Arizona.

**Bill Holden:** I'm not familiar with anyone but you know what, I think if we're going to drag implant dentistry forward, sometimes drag it, I think we need maybe more people who do implant dentistry to exclusion. There's people who do the odd implant, there's oral surgeons who do implants, periodontists, prosthodontists and the odd endodontist but I think there's benefit in having more people where the buck stops here and the crazy cases where it's got three different of everything and it's been attempted, 15% of my practice is complications and revisions.

That means it has already been tried somewhere else, so it's not glamorous but I think we need more people doing that.

**Howard Farran:** Well for me the litmus test is, is it patient centered or is it doctor centered? In every profession you look at, whether it's policeman, fireman, dentist, they always think about themselves before the end user, the customer and if I was a customer and I had four or five different implants and bridges and complications and they were shipping me to all these different people, I have the right for one guy that can do it from A to Z and if I find out this guy is the best, he should be able to do it all and I can go there and pay money and have it all done.

So that's my litmus test, so implantology and dental anesthesia has to be a specialty.

**Bill Holden:** I think the dental anesthesia people have a better argument than we do actually. When you look at the things that the ADA says, the requirements that they have to create a specialty, we cover most of them. The one thing that we get into trouble with and as a side bar, specialization, the S word, I mean if implantology becomes a specialty tomorrow, it doesn't affect me either way. I don't benefit or hurt from it either way. I don't have an ego, I don't care if they call me a specialist or not. But I think that there's probably benefits overall, and some drawbacks, but overall a benefit to making things like dental implantology and dental anesthesiology a specialty.

If you're a patient and you've got a disaster, you don't really know where to go. What's even more common is, the new guy who just graduated from dental school, he's a new grad, he's out there, something crosses his desk, it's a real mess and he doesn't know where to refer the patient. He's sending him to the guy he met as an instructor in dental school because that's all you know, that's all we knew when we graduated, right?

So they don't know where to send things like this.

**Howard Farran:** They gave us a specialty, pediatric dentistry, what is that, just a small human? I mean should I go to a specialist for a short, fat, bald human? If there should

be pediatric dentists there should be short, fat, bald dentist specialists where I can go in there and have a beer and a cheese burger.

**Bill Holden:** That's the point I was getting at, is the thing that we don't do, is that there are unique things in our world that don't overlap. It's not like half our world is covered by the surgeons and half our world is covered by the prosthodontists. There's other things out there that they don't seem to necessarily realize that we have as a unique skill set.

**Howard Farran:** I want to get into some specifics. I want to ask you first of all is this true: when I got out of school in '87 the first thing I did is I signed up for a Carl Misch's seven three day weekend in Pittsburg and got my fellowship with the Misch Institute and then I got my diploma of international congress for oral implantology and I thought implantology was very hard. I mean you'd have a two dimensional pano, you thought you had an inch and a half of bone, you'd lay a flap and there was just this paper ridge and by the time you smooth it down you lost half your bone. Do you agree that with 3D radiographs and surgical guides that it takes less skill to place an implant today than it did 25 years ago due to technology?

**Bill Holden:** No, I do not agree with that. Let me explain why. First of all, my student, I teach the place your first implant continuum course, I maintain to them strongly that if you need a CT to place the case, you shouldn't be doing that as one of your first ten cases because what I see happen is that people get themselves in trouble with guides. I've been doing guided surgery since 1999 or something like that.

**Howard Farran:** What percentage of yours do you use guides today?

**Bill Holden:** On my cases? Probably 50% of my full arch cases and probably about 2% of my smaller cases, two or three implants.

**Howard Farran:** So a single tooth replacement, you don't ever- you pretty much don't use one?

**Bill Holden:** Only in really specific circumstances.

**Howard Farran:** But in full arch half the time?

**Bill Holden:** Yeah I would say.

**Howard Farran:** Okay I'm sorry to interrupt, continue.

**Bill Holden:** People get mixed up in guides before they know how to do implant dentistry. The terms you hear trying to make is sound better than guided, it's not. What I'm saying is people get themselves in trouble because they get this guide made up, they don't realize the limitations of guides, they go and put the guide in, it doesn't fit or worse yet it almost fits and they don't know it's not fitting properly and they get

themselves in big trouble with it and I like to see people learn to do surgery without guides before they get into the guided game and use those to attack more complicated cases.

I was having this discussion with someone the other day-

**Howard Farran:** I don't want to throw you under a bridge, but what would you say to the 25 year old kid in dental school right now that says uh, he's just old school.

**Bill Holden:** Well more power to him right, but I have an open door policy. People come and watch me every day so when I have somebody like that I say you know what, come down and hang out for half a day. You got half a day? Come down and hang out and I don't think any of those kids have ever walked out of here and not said wow, I need to be able to do this first.

**Howard Farran:** Okay then what would you say to the second argument saying hey doc, if you lay a flap and you reflect all that back, you're letting in saliva that has all these microorganisms, where if I do a surgical guide the tissue punch is a lot more hygienic, less cleaning, less trauma, less swelling afterwards. Do you agree?

**Bill Holden:** I don't lay a flap automatically unless I need one. It's a good point, there's a lot of cases where you need a flap to maintain- people are slapping in a guide, closing their eyes and burn right through it right? So that's another one of many problems, many dirty secrets we see with guides.

**Howard Farran:** Can you explain that in better detail because I think that might be in the head of a lot of people in dental school. Basically a lot of people are going through a surgical guide and they're basically going through all the attached gingiva and they don't realize that this thing is placed and they just lost all attached gingiva where if it had been a flap that pushed to the side it would have been a better deal.

Can you explain that in more detail?

**Bill Holden:** Somebody like me, I do quite a few implants. Somebody who has got some experience, I probably if I'm placing a simple case with one or two implants, if I'm laying a flap four out of five times it's not because I need to see the ridge, it's because I don't have enough gingiva, I want a decent band of it on the buckle of the eventual crown. If you take a tissue punch, whether it's with your eyeballs or through the guide or just drilling away through that guide and you go through the junction of where the keratinized tissue and the mucosa is you're going to have mucosa instead of attached gingiva on your eventual crown. That's hard to get back once it's gone and while implants are less susceptible, you don't want that if you can avoid it so when I do a flap it's not this idea of I'm going to visualize a ridge.

It's usually because of keratinized gingiva. CT, I did this gig for a few years before I had CT and nobody died. But CT is a tremendous tool. What it's doing for us is it means that I know what I've got before I get in there. It doesn't make more bone, you can't- the salesmen are going to say you can do more cases because you can find bone to put the implants in but that means you're putting it in the wrong spot sometimes.

What it does mean is that there's less surprises so you maybe don't have to necessarily be as invasive, you can find out before you get in there if you've got everything lined up.

When you talk about guides, what I think may change, this is just my crystal ball prognostication but I think what you're going to see more of as CT technology gets better and cheaper and less radiation involved, I think you'll see more people doing cases where instead of doing a guide, they're going to drill a hole, stick in a guide and then you're going to see more people taking a low resolution CT of that instead of a PA so they can see in three dimension where they're at. That I think is one of the changes you're going to see.

That brings up some more things because some people like to sedate all their patients and you can't sit them up and march them down a hall to the CT machine, but I think you'll see more of that instead.

**Howard Farran:** Okay I think one of the biggest complaints I get on these podcasts, a lot of this stuff is flying over a lot of people's heads so you're throwing around CBCT, so we've gone from two dimensional x-rays to three dimensional x-rays. Explain why you like the CBCT, or I prefer 3D x-ray, I think it's a better term, and then a lot of dentists want specifics. They want to know well don't just say CBCT, what did you get and why did you get it?

My whole mission is that with Dentaltown no dentist has to practice solo again. So I'm an individual dentist, I want to get into this 3D radio, what CBCT did you buy and what was going through your brain that picked your machine?

**Bill Holden:** Okay well I'm going to clarify this by one comment, when you say you like 3D better, we looked back last year and the year before and the number was the same of our consults coming through the door, I did about 35% of them I did a CT on. Some days every patient gets a CT but many of them don't so I don't do a CT on every case. I know some dentists do and that's fine, if they want to do that I don't have a problem with that but in our world I don't think that's necessary and sometimes a PA is better than a CT, so keep that in mind.

We bought an i-CAT. I think I had the first next generation i-CAT off the assembly line as opposed to the i-CAT classic. The new one is the i-CAT, it's got an X in it, they've got more low resolution settings on it. I like i-CAT images but one thing when I bought it, I



didn't kind of understand until I actually had it, it's not the machine, the software is more important than the machine.

He couldn't have been more correct. So if you go buy a machine and it comes with software that makes your life hell, then it doesn't matter how good the machine is. So before you spend cent one get the software and play with it and if they won't give you a free copy of the software to play with run away because it's a bad sign.

i-CAT I like. The tech support on it is dodgy but I hear that complained about everyone's machines and I only have one machine to compare to, everyone else has different machines than me says the same thing, oh tech support, the guy knows less than I do.

**Howard Farran:** So you run in some implantology circles, you probably know lots of implantologists. Does i-CAT seem to be the market leader in the implantology group or is that not fair?

**Bill Holden:** I don't know that that's fair, I think there's so many players now. I'm seeing guys use everything. There's pro's and con's. For example one of the drawbacks of the i-CAT is if you have the built in pan with it, you're taking it on a flat, the same flat sensor so you don't have a curved sensor and then the computer has to fix the pan. Some machines have two sensors so there's an advantage there.

**Howard Farran:** Tell me what you think of this statement: You've been out of school five years, this machine is six figures, do I really need to spend \$100 000 on a 3D x-ray machine or do you think coming soon to Edmonton, there'll be a CT center that I can go get the x-ray or what if a local kid called you up and said can I send a patient over and pay you some money for a CBCT, because this is a tough decision, to buy or not to buy \$100 000 CBCT. They've got the same dilemma with a CAD/CAM CEREC, same dilemma with a laser.

So if you're asked the question, can I be a quality dentist without a \$100 000 3D x-ray machine?

**Bill Holden:** Absolutely. I'd totally do a scan for them, no problem, right? And most major cities including ours have commercial scanning centers associated with a radiologist but I get really tired of the thing where it's the standard care, I hate that story. Oh it's the standard in care, if you're not doing a CT of your patient beforehand you're going to go down the river, the lawyers are going to be chewing on your heels.

That's bolony, that's not true. I'd be the first one to stand up and defend someone who got in trouble doing, or got told off for doing that and like I said before if a case is complicated enough that you think it needs a CT and you just do the odd case in your office, maybe that's not a case that you should do. Maybe you should farm it out.

**Howard Farran:** Okay so you're saying I can be a high tech dentists without spending six figures on a machine, on a CBCT. Let's go next, what's considered an easy starter case? Name me a couple of scenarios. If some dentists had a goal and said okay we're coming up on the end of the year, it's next year, 2015 I'm going to place ten implants in my first year, what would you be looking for? This person, should he be thinking under a lower denture, two or four, is this replacing- talk about started cases and more importantly keep them out of trouble, keep them out of jail, keep them out of the lawsuit. Which cases are for advanced? What's beginning, what's advanced?

**Bill Holden:** What I tell the students is you're looking for the single canal endo of implant cases. You know when you look at your schedule and you see there's a single canal endo and you go oh thank goodness, that's my recovery time. You're looking for the same thing, the slam dunk cases and that means several things. Number one, stay out of the esthetic zone when you're learning, for heaven's sake, I'm always frustrated when you teach someone and you teach them all these things and later you see a case on the lab bench where we have the implant lab where they're bailing someone out with some outrageous thing that they got themselves in trouble. Stay out of the esthetic zone.

**Howard Farran:** Especially on women. High needs esthetic women. If you did it on an old guy it's probably not going to be in trouble but you get some high needs women with esthetics.

**Bill Holden:** It's hard in many ways so stay out of there. The easy slam dunk case is like an upper bicuspid with lots of bone, at least 10mm of height, lots of width, it's not in the esthetic zone. Those are the single canal endo of implant cases so when people are taking their training course with us I steer them towards those kinds of cases. A lower case where you're away from the metal form but you mentioned two implant lower cases, those can be very challenging.

The bone is not necessarily straight up and down, down there, sometimes they're like this and this and you can really have an adventure with those if you're not comfortable with them and make it really difficult to restore.

**Howard Farran:** So if we look at statistics we've got 31 million Americans with zero teeth, and you're saying that that's not really the low hanging fruit but when we look at missing teeth, it's the six year molars are the most likely to be missing in American data. Any low hanging fruit in the six year molars?

**Bill Holden:** Absolutely. Those are relatively straight forward cases for most people. In some cases the bone can be a little bit dodgy on the lower, on the lingual it drops in a bit, but if you have a finger you don't need a CT scan if you can stick your finger in and

feel if the bone goes down beside the lingual or it take off inside and you've got a more difficult case. Use your digital CT scan right here. You can tell if it's a challenging case.

**Howard Farran:** Would you prefer an upper or a lower on a six year molar for entry level or is it really no difference to you?

**Bill Holden:** It's not a big difference for me I don't think.

**Howard Farran:** And then with the tooth on each side of it, that's your orientation. If someone was doing their first six year molar replacement, single unit, would you recommend a surgical guide or not?

**Bill Holden:** Well I make the students do a surgical guide just as an exercise but I'm not talking about a CT guided surgery. There's a lot more surgical guides out there than just a CT guided, place the implant on the computer thing. You're going to need a model of these cases anyway because at some point you're going to restore it so if these guys take an upper and lower L shape, pour a model up, they can see where they want to be. They can make a hole where they want the entry point to be, they can do a vacuform on it, they've already solved half their problems, well a third of their problems.

The implant position is going to be based on the entry point, the angulation and the depth and if you can get your entry point under control your life just got one third easier. There's a lot of ways to make your life easy with a little bit of preparation and it doesn't involve a six figure CT machine.

**Howard Farran:** When we're talking about surgical guide there's on Dentaltown I'd say the two, you're all over Dentaltown but there's a big thread on BioHorizons and then another one with-

**Bill Holden:** Blue Sky Bio.

**Howard Farran:** Blue Sky Bio. Then there's another big thread with Armin, in America in like three cities in Southern Cal. Can you talk about those two or give any insight on those two?

**Bill Holden:** I don't have a ton of experience, Blue Sky Bio is an implant knock off company owned by a couple of good guys who post on Dentaltown as well. I use their products from time to time, good guys, good products. They've gone ahead and built themselves a software, it's actually a pretty good one, and the key for them is they've said okay this is freeware. All you have to do is register and download it. A lot of people in a lot of labs have downloaded the software because free is everyone's favorite price, right? They've been working with it and using it to create guides. You can even if you're not going to use a guide, if you want to play around with the software it's nice to have a free one to play with and learn with.

Now Armin, he owns a group of scanning centers and he uses a Sirona system called SICAT to create guides as well. There's lots of services out there that will make you a guide. I mean if you really feel that you want a guide and you don't want to refer it out or you can't refer it out because you're in a small town and the patient can't travel, you do have options where if you can somehow get them a CT, you can send it and some of them will crank out a guide for you and send it to you.

**Howard Farran:** From what I'm hearing from you is that- you place thousands of implants- that the six figure CBCT 3D x-ray machine and the surgical guide are not magic pills that are going to take away the fact that this is just good old fashioned common sense surgery.

**Bill Holden:** I couldn't have said that better. They're a tremendous tool to have up our sleeve but you can get yourself in trouble if you view it as the be all and end all, not one more tool. There are cases where I'll put in a guide, I'll do the case and I'll take out the guide and look, make sure I know where I am.

**Howard Farran:** Another thing I want to talk about is I'm always afraid the dentists treat dentistry too much as an engineering physics when I see my problems everyday as a biology problem. I feel like dentists will always talk about how good the margin of the crown fits or they'll complain about someone else's work because the margin is maybe open, and I'm like dude, streptococcus mutans wiped out that tooth when it was a virgin tooth.

When I see termites going into a barn, I don't see them attacking at the barn hinge door, that barn door is not very good, I mean they just walk up to the wall and start eating. I'm very excited that titanium can't be eaten by streptococcus mutans but I want to pick your brain about, a lot of people say they see there's periodontal disease around this implant. I see peri-implantitis but that's very different than periodontal disease around tooth.

**Bill Holden:** Well it is and it isn't. The bugs are pretty much the same. We're pretty clear on the fact that the bugs in peri-implantitis are very similar to what we see in periodontitis. We're learning a few things over time because remember even though implants have been around for 40 or 50 years, they've only been heavily used in the last maybe 15 years. So we're starting to see follow up on enough people that you can start to make more I think assessments. Not just somebody's research paper but people getting an empirical idea of what's going on with their own cases and anecdotal evidence and comparing it to what their friends see.

We're learning a few things. We know that people who have lost their teeth to perio disease have a higher rate of peri-implantitis afterwards. That would make perfect sense. You've got the same bugs hanging around the mouth. We know that some implant designs are more prone to suffering from periodontal disease and we also know

that, and I'm pretty convinced that a lot of these things are multifactorial, and by that I mean if the patient has got a heavy bite and they don't have a lot of teeth left and they've got a history of gum disease and maybe it's not the biggest implant or there's a bone stint, any one of those things probably would have been okay, but you start adding them all together and the implant never had a prayer.

I don't know if that makes sense or not.

**Howard Farran:** Yeah it makes sense. So obviously an implant can't get a cavity, it's immune to streptococcus mutans. When I go into the nursing homes, Phoenix Arizona is the desert so we call them snowbirds who just come down here for the winter and a lot of people come down here to retire, a lot of them from Canada, I'd say 10% from Canada just because they don't want to weather the cold when they're 80 years old and when I go into the nursing homes it's pretty obvious Bill that it's all women, so guys like us we don't live long enough to get to the nursing home. It really it almost all women.

You can go down an entire wing and not see a single guy, but number two they're just wiped out by root surface decay within a year and a half and so many of my patients I've treated in the last 27 years, I did a root canal build up and crown on this tooth and it was just like mush after a year and a half and I did an implant and a crown over here and it's just sterling. It's just shiny and sometimes I can rattle off five names in my head where the only thing left in their mouth was the implant crowns and I look at some of these ladies that had all these root canals and crown and bridge and they didn't last 18 months.

Some of these other ladies that had four implants or six implants on a twelve unit bridge or four implants on over denture, they're like the luckiest lady in the nursing home. Are you seeing root surface decay wiping the elderly out in nursing homes?

**Bill Holden:** Yeah I'm seeing the same thing as you of course. So if you're going to lose all your teeth, you're going to lose them for one of a couple of reasons. You're going to lose them because you've got rampant decay, or you've got rampant periodontal disease or you have a tremendous amount of wear. Now implants don't do well with patients who have tremendous amount of wear. If you ground your teeth down to nothing, your implants don't like that kind of force. If you lost your teeth to gum disease, you're a little bit better off but you still have an increased chance compared to the average person of having problems, but the patients that we love are the patients who lost their teeth to root caries because implants is never going to need a tap, a filling is never going to need endo, those patients I feel great about.

The interesting thing though is that some of these patients when they get into those environments, oral hygiene is not great. It's interesting to see some of these patients because they'll have implants just caked with calculus and yet they have no problems

around- some people with teeth have all kinds of calculus around them and no gum loss, no periodontal inflammation, in other people a little bit of anything and it's the end of the world.

So maybe, I don't mean to back this up, but maybe we need to take a closer look at people when we're taking their teeth out and say these teeth were taken out because they have root caries. There's calculus there but there's no inflammation, the bone's rock solid. The worst extraction case there right? So maybe those people are better implant candidates because when things get worse, looking paternalistically into the future, when things get worse for their oral hygiene, they're going to stand up better with implants.

**Howard Farran:** I also think with case selection, in my mind I'm so jaded on boy versus girl because the average American boy lives to be 74 and the average American girl 79, so they're outliving us five years and like I say, when I go to those nursing homes they can't brush their teeth with rheumatism, a lot of them have dementia, some of them have Alzheimer's but what's really the saddest part is it's usually one little girl nurse assistant for \$11 an hour treating 22 people on a wing, so do you really think they're going to go brush and floss and rinse and give them a bath and dress them and get them to dinner. It's not going to happen.

The brushing bill, it's like a two minute exercise. It's like ding-ding, spit in a cup, done.

So you said the lowest hanging fruit, the very lowest apple hanging from the tree was an upper bicuspid. What would be the next one?

**Bill Holden:** I think you're talking about a first molar, then like you'll say upper or lower. One of the interesting things, I'm going to tell you this. One of the interesting things with teaching this course is this, and it happens year after year after year, the exact same thing. People sign up for a course and they say you know what I've signed up for your course but I'm really worried if I'm going to be able to find a case. I don't know if I can find a case to bring in because they bring in their first case and they do it here with us holding their hand etc. and I don't know if I'll be able to find a thing and the exact same thing with everyone- every single time.

So we go through the first stage of the course, we talk about treatment planning and stuff and then they always come back and go well I've got these four or five cases and I don't know which one to choose, every time it's uncanny and what that tells me is that, and these aren't dentists who go with the flow like you said before, these are sharp people but it tells me that an awful lot of general dentists have a ton of undiagnosed and untreated edentulous spaces in their practice. These people are bringing in cases after cases of them that have been in their recall practice for 10 years.

**Howard Farran:** Specifically what are talking about, are you talking about you're putting on a course in implantology?

**Bill Holden:** Yeah so when I tell the students you have to bring in your patient-

**Howard Farran:** So you're talking about this is something you do with your dental school?

**Bill Holden:** We actually have a center here in the same building, but yeah.

**Howard Farran:** But I mean if I'm a podcast viewer and I'm out in the middle of Shawnee, Oklahoma can I go to your office and take this course?

**Bill Holden:** You could but I would steer you away from that and this is why: I think there's great benefit in trying to learn locally. There's a lot of different ways you could learn to do implants. You can go do a two year residency someplace, you can go take one of these continuums where's it's a weekend a month for a year or whatever, you can go do, I would hesitate to steer you towards the one weekend hotel course, I think there's risks involved with that but what we do here is we offer the very entry level low hanging fruit course like you say and I think those courses exist in a lot of places, but one of the benefits that people don't think about is that after they've done the course, who do they have to support them locally?

Because we have people come take my course that have already taken a course somewhere else, they've flown across the continent because if it's far away it must be much better, we all know how that works, and then they come back and they go I don't even know where to order saline. I'm at a loss and so if you can find something locally where you've got some support, if something goes sideways they can pull you out of the fire, they can help your staff, your staff can come hang around and learn. There's great benefit in that so I would tell people to try and find something in their neighborhood first.

**Howard Farran:** And the proof of that is Dentaltown is coming up on 190 000 members and I've been saying all along that all these dentists are alone and solo and shy and I even learned endo. Every endodontist in your town is a shy, introvert, engineer, scientist geek and you just call him and say hey buddy, can I come over and watch you all day? He's like oh my God a friend! Oh yeah! You know. Periodontists, these people fly across the country to set up a perio program in their office when they've got a periodontist three miles from their office who would love to meet you but he's too shy and whatever and oh my God the street smart dentist can sit there and call their periodontist and say will you come down and teach our hygienist how to do a perio program? Absolutely! Can I watch you place the implant? Everyone's dying for a friend and dentists are just shy, introvert people and so they would rather pay thousands of dollars and fly across the country because if I give you \$5000 I have permission to walk in there and be your

friend and the guy next door- the street smart people do it next door. The other street smart people are listening to the podcasts like this or on Dentaltown taking a course.

By the way, when I told everybody I was interviewing you today, I must have told about a dozen different Townies, they're all like when is he going to put up an online CE course on Dentaltown? A lot of people want you to put a curriculum up.

**Bill Holden:** In my free time, yeah.

**Howard Farran:** In your free time. But think about that because that was the main feedback everybody told me. They're like but at least we're getting him on a podcast.

So back to surgical guides. We talked about different systems. You said that for a big case half the time you use it, a single tooth implant almost never use it. Give me specifics, how would you do your surgical guide for let's say four on the floor. We hear it a lot on the media. They're advertising it all over TV, come to my office, four on the floor, isn't that a Nobel Biocare product?

**Bill Holden:** It's an old school term. Refers to four actually straight up and down implants in this mandibular symphysis which we still do but that's the old four on the floor you'll hear. You're talking about All-On-4.

**Howard Farran:** Oh All-On-4.

**Bill Holden:** All-On-4 is the Nobel registered trademark name for when we're doing four implants and the back ones are angled, typically just the back ones but sometimes all four. I do that from time to time, on the upper I prefer six but yeah we angle the back ones sometimes to avoid the sinus if I don't want to graft- it's a great tool to have in our toolbox.

One of the problems with All-On-4, dentistry is bad for dentists for loving one treatment and then trying to squeeze all their patients into that treatment. People do tremendous surgical gymnastics to try to make the patient fit their favorite treatment instead of the other way around and having a number of treatments at their disposal and I actually even see cases where patients come in with the angled implants and there was no reason to angle, so anyway going back to your question- what are the mechanics for me crank out an All-On-4 case.

Let's say the patient is edentulous, they've had a denture for a while so things are healed, they don't want their denture anymore for whatever reason, they can't function with it and you want to do a guided case so what I'll do is typically in those cases I'll recognize them right at the consult so when I'm doing the consult I say okay we need a scan on this case. I'll actually nip downstairs to my lab with their denture, I've got an old obturation gun from endo filling and I'll put a number of blobs of gutta percha in on their



denture and then we bring their denture upstairs and we scan their denture separately and then when the patient has their scan done for diagnostic purposes they're wearing this denture and then you can flick all these pieces of gutta percha off. Now I don't have to subject them to more radiation and rescan if I decide I want to go ahead and do this as a full arch guided case because I already have all the information I need. So what will happen is because I'm too busy and lazy to design it myself most of the time unless it's something else, I'll upload it to one of these centers wherever I'm using that month.

I'll upload the case, all the scans of the patient and the denture with the markers in it to the case. They'll have somebody, typically a retired dentist or somebody who designs the case. They'll phone me up, I have a go to meeting with them to confirm the placement, takes five or ten minutes, then they crank out the guide, it shows up and hopefully doesn't get caught in customs which is an adventure when you're in Canada. I have done cases freehand because I gave up waiting for the guide that was stuck in customs for weeks. When the guide comes back there you go.

That's not a complicated way to crank these out without me getting involved in too much stuff. I've got five, six, seven different software but they're not cheap some of them too so people can avoid that as well.

**Howard Farran:** Give them one or two names of a software and one or two names of a lab.

**Bill Holden:** Okay so let's say you want to do your first ever guided case. You can go to somebody like 3DDX in Boston. They've got some information on how to do it. There's a lab in the States called ROE Dental Labs. It does some, I've had some cases with them. The last one they sent me they had the wrong sized guide pins in the front so I was a little bit disappointed but all of these cases you have to know what you're getting a little bit because these guys that are doing this are working with a whole bunch of different systems and sometimes there's issues like that.

The other thing that people don't realize with guided surgery is you're going to need a specific surgical kit. You can't just take in most cases, you can't just take your surgical kit and just run it through a guide because the drills are too short. So it's more than just getting this piece of plastic if you're going to do fully guided surgery.

**Howard Farran:** Shed some light on this: we know the largest dental company in the world is Danaher out of Washington D.C, they own lots of dental companies. One of the companies they own is Kerr which bought Jerry Resnick's business Implants Direct and last week they paid two billion dollars for Nobel Biocare, yet a lot of dentists say titanium is titanium. If they sold this titanium plant at any store, titanium is titanium.

So if every implant is the same, if titanium is titanium and Danaher already owns Implants Direct which is a nice titanium implant, why would Danaher, I mean obviously you can't get that big without knowing something a lot more than me, why would they write a check for two billion dollars for Nobel Biocare? I mean basically what I'm saying is, is a titanium implant with a Nike logo, Nobel Biocare, is that better than an implant you've already got that just is Implants Direct and the Nobel Biocare is associated with the legend implantologist Mr. Branemark who's now retired in Brazil and he's from Sweden where they have the Nobel peace prize and he called it Nobel Biocare and did they just buy a Nike logo? They already had a \$99 implant, why did they pay two billion dollars for Mr. Branemark's Nobel Biocare?

**Bill Holden:** Well I don't know if it's worth two billion or not, that's their call, it's their money. We're seeing a lot of changes in the implant industry right now where implant companies are becoming these big vertical organizations where they offer full service implants and they also have under the same company they also have an economy version so you're seeing things like Nobel Biocare is mixed up in that group and they also own Adin which is an economy implant. You're seeing Straumann, Straumann is the company that runs around saying if you use any non-profit parts, you will be burning in the flames of hell because- but they also just happen to own a big chunk of BioDentica which is the knock-off company and they also own Neodent which is a Brazilian I believe company that makes economy implants, so they say it on one side of their mouth but on the other side they're buying more companies.

I think, and this comes up on Dentaltown all the time, but I also see it even in the students that I teach. People think that they're buying a commodity, they're buying an implant. The implant cost, machines poop them out, more every day. They don't cost a lot to crank out the actual physical implant so when you're paying a chunk of money for that implant, you're paying for the support, you're paying for the rep to come around and help you. Some people don't avail themselves with that so I don't know what to tell them but at least you know if you're buying something from a mainstream company, you have a pretty good idea of what you're getting. Now I use a number of knock-off products but the key to that is you have to know what you're buying and when you're a new guy, you've just started placing implants, you don't know what you're getting and you're a lot safer if you stay with the mainstream companies.

Then maybe you want to add a few things to your arsenal over time.

**Howard Farran:** Give them some names.

**Bill Holden:** Okay so I see people who are seduced by price. I see people that will take my course and they've got all the stuff to go get set up with any of the major companies and then I find out later they've bought, who should I pick on, they bought the latest

thing from let's say Implant Direct because they don't have rep coverage and Implant Direct you can buy implants for cheaper but you can get yourself in trouble because you don't know the difference.

So now let's say the guy has a Nobel replace kit and he's bought Nobel knockoffs from Implant Direct to say, they call it the RePlant. What they don't tell you is that everything has to be a little bit different to beat the patent, so there's a little bit of differences there and the RePlant for example has a different threading around the implant, it's got a Zimmer thread, not a Nobel thread so if you use the thread tap and create the threads in your osteotomy and then you put the RePlant in, it's a different thread you mush all the volume of your initial stability. Well then if you don't have a feel to deal with that or recognize that's going to happen you can get yourself, not into big trouble, but you can make misery for yourself.

So there's nothing wrong with knockoff companies, I use them myself, I think they're a great benefit and I like seeing competition but I think you can get yourself into trouble when you get mixed up with them before you know what you're buying.

**Howard Farran:** And also what you're saying is the good old fashioned rep who sells the more expensive implant and you're just starting out, at least you'd have a relationship. You'd have someone that can show up that day who knows all the local, who knows everything.

**Bill Holden:** A good rep is worth their weight in gold. Not all reps are good reps sadly and there's a lot of turnover in reps in dentistry, not just in implant dentistry but I heard a joke once from a guy who's a sales manager and he says yeah, look at all the booths here at the trade show, when the music stops everyone moves over one booth right because there's just so much turnover but if you have a good rep and you're starting out they can be a boon for you, they can make sure you've got everything set up before you get there. They're going to come in and hold your hand and you should take advantage of that.

**Howard Farran:** I've only got data for the US but in the United States of America the average Americans will only have their jobs for three years and then they'll switch to another company so there's a lot of turnover. Based on the average American that changes jobs every three years and in Phoenix every year 10% of the homes flip. So every year in Phoenix 10% of Phoenicians are gone and replaced by someone else.

So you would not say titanium is titanium, and implant is an implant, you do like some of these designs, you do like some of these research, there are things you like and you're just not buying an implant on price.

**Bill Holden:** No I mean we're a unique situation because we stock and place eight different systems here in our center. I think we have like \$200 000 in inventory, something outrageous, it's ridiculous but that does not make sense for most dentists. You want to try to find one system, if you're a general dentist placing implants, you want to try and find one system that you can use in almost every situation and stick with it because it makes a lot more economic sense to keep your inventory down.

**Howard Farran:** Well doc give them that name, he hasn't placed one and you've placed more implants than you have posts on Dentaltown. Give them a name brand or two. Where should that person start?

**Bill Holden:** Well look at the mainstream implant companies, that's where you start, you start with Nobel, Straumann, Adin, BioHorizons, Zimmer in the States more than here. If you stay with one of those companies and they have a rep-

**Howard Farran:** Okay name those five again slower and give each one a sentence why. You said Nobel Biocare, is it fair to say historically that was the first, I mean that was Branemark in Sweden? Nobel Biocare?

**Bill Holden:** This is a bit of a history lesson I guess. Nobel originally was set up, their model of business was that they wouldn't deal with general dentists, they would only deal with specialist. So they would only deal with general dentists now in the States of course evolved Sterios which is another company and they kind of gravitated towards the general dentists. Now Nobel bought or merger with Sterios back in about 2000ish I think, 2001 somewhere around there maybe, so there's actually specialists to this day who won't use Nobel because they're still peeved off that Nobel started selling to the general dentists, because how dare they.

**Howard Farran:** We have that same company in the States where most of your 10 000 orthodontists won't buy any orthodontic supplies from a company who will sell ortho supplies to any general dentist. So that's still a huge issue for suppliers in America. So Nobel Biocare is the old Branemark merging with Sterios and that's probably the biggest, oldest brand name in implantology?

**Bill Holden:** Yeah, Straumann claims they sell more implants than Nobel now, I believe it's probably true.

**Howard Farran:** And that's right next door in Switzerland right?

**Bill Holden:** Yeah Nobel was in Sweden but they moved to Switzerland for tax reasons, okay and Straumann is from Switzerland as well. I would stay away from their tissue level implants but at bone level Straumann is a way to start. It's an expensive implant but you know you get, there's no surprises.

Then you're looking at companies, interestingly you look at something like some of these companies, you look at their parentage too. You see the BioHorizons booth and the CAMLOG booth at the trade show and they're scrapping up against each other and Schein owns them both.

**Howard Farran:** Yeah BioHorizon that was the company started by the infamous Carl Misch.

**Bill Holden:** They make a number of implants. The mainstream one I suppose would be the tapered internal. It's got the same inside connection as a Zimmer. That's not a bad place to start.

**Howard Farran:** And Schein owns BioHorizon and what was the other one you said? CAMLOG? And those are good systems too?

**Bill Holden:** CAMLOG is a good older, you know what, one of the things, where you're going is where should the new guys start and you know what one of the things that I think is a big driving force should be if you're taking the local course I talked about before, what are they teaching because what you've taken in your training is a good place to start because that's something you're more familiar with, that's what you're mentor is comfortable with and can help you and has all the extra parts in his back closet when you forget to order something at the eleventh hour.

The local labs will be familiar with it because a lot of this is very geographical too. You might go to a part of the country where everything is 3i, there's parts of the States where 3i has all kinds of penetration. Maybe that's a good implant for you there simply because the lab is used to it, everyone has parts and that's what you've been trained on and that's not a bad way to look at it as well.

**Howard Farran:** So this is really interesting, basically what I've been hearing from a very seasoned implantologist, you're a legend on Dentaltown, you've got a couple of thousand posts, you've been doing this for a couple of decades, you're pioneering a new area of implantology that's not even a specialty yet and probably won't be for another decade or so. But basically what you're saying is there's no magic bullet in a 3D x-ray versus a 2D, there's no magic bullet in one implant company versus the other, there's no magic bullet on a surgical guide. Just relax, it's good old fashioned oral surgery. Start with the low hanging fruit where it's just replacing one upper bicuspid. The most common missing tooth in America is obviously a six year molar because home care was so much worse at age six than at twelve obviously and you never really did say if you would prefer to pick a maxillary versus a mandibular?

**Bill Holden:** I don't think I have a preference there.

**Howard Farran:** And that basically this is just good old fashioned oral surgery. So then I want to end, and you're giving great advice, you're saying instead of worrying about the name brand of the implant and the price, why don't you get a local relationship and instead of flying to Dominican Republic for a weekend course or something or coming up to visit you in Canada, why don't you find someone local, why don't you find some local relationships and why don't you use the, get in with some local people so what when you're ready to do a case and you're missing something, the buddy up the street that got you into this system might have that part, might have that piece. When you get into trouble you have a relationship.

**Bill Holden:** I'll expand on that too for one point. People when they take a course, they take our course, they place an implant and they go what course should I take next? And I say no courses. Go place a handful of easy implants. Cherry pick some easy cases. Plant the seed with your other recalls, if you see a case come through, plant the seed and say I've been doing more of these, we might have to talk about this next year but cherry pick some easy cases and then we'll do another course because when you've already placed a handful, then go take the course especially if it's something like a cadaver course or whatever, now you get way more out of it because you know what you're looking at.

**Howard Farran:** I've only got you for another minute and a half and we have a dilemma here where the people most likely to be missing their teeth are smokers and so when I'm picking a low hanging fruit, should I avoid smokers? Do you avoid smokers? Talk about smoking.

**Bill Holden:** The Reader's Digest version, I tell people that they have a higher rate of having complications and failures. Now I'll be honest with you, the research on that is there's some that says no, but I believe, and I think there's enough research to back me up that says you have an increased chance of problems if you smoke and I counsel people to quit smoking and it's surprising how many of them do.

**Howard Farran:** But for this low hanging fruit, these initial first cases, for the guys getting started, is there any health history where you would say run?

**Bill Holden:** Well yeah and if you're not learning that in your course, you need to reassess the course but there's a few things. People are taking in certain kinds of injected drugs for cancer-

**Howard Farran:** Yeah I'm sorry I'm not talking about an acute disease, just the chronic stuff, would you do a smoker who takes insulin for diabetes and is obese?

**Bill Holden:** These are all relative contraindications, they start adding up but you know what you need to look at, you have to say if I took out a wisdom tooth on this person,

would they heal nicely? That's a good way to look at it because people do generally get that, they say oh man if I take out a wisdom tooth this guy is going to be back in my office next week. I know the wound is going to open up, it's going to be a mess and I have to pack it- if they will heal decently from a wisdom tooth there's a good chance that their implant is going to be fine.

**Howard Farran:** That was very well said, that's a great takeaway. So that's my last question even though I just went into overtime by one minute. I see tons of dentists who say yeah I love extractions, I love removing wisdom teeth but I've never placed an implant. What's harder Bill, placing an implant or removing a wisdom tooth or is that the same skill set?

**Bill Holden:** Well if you're cherry picking your cases the easy cases with implants are much easier than your typical impacted wisdom tooth. In fact I'll go one better, I think the simple flapless implant cherry picked case is easier than a class two composite by far.

**Howard Farran:** Wow. That's the quote, I'm going to push this tape with. Thank you so much for your time, I know you're the busiest man in Canada, it's been awesome. Thank you so much for doing this. Thank you so much for your 2000 posts on Dentaltown. I've been a big fan of yours for a long time. Thank you for all you do for dentistry and for Dentaltown.

**Bill Holden:** Thank you for asking me. It was a pleasure and I was honored.

**Howard Farran:** Okay thank you very much, bye-bye.

**Bill Holden:** Take care.