

Dr. Gould: Hello, everybody out there. This is Get Your Smile On with me, Dr. Joel Gould, your wellness dentist. I am broadcasting live from beautiful Manhattan Beach, California. We have an incredibly exciting show tonight, and we have our guest who's going to be Dr. Mark Cruz, and we'll be getting to him shortly. As per usual, we're talking about wellness dentistry. In the past shows I've mentioned, made sort of an admission, that I found that I have something called sleep apnea.

Tonight we're going to actually talk about the larger group of conditions that we're calling sleep disordered breathing. What that really means is when you are trying to get your good night's sleep there is some issue with your airway that is preventing you from getting that good night's sleep. If we think back to the old days and our grandparents and what used to be going on back in the day, there is nothing better than a good night's sleep. These days it seems that we have a lot of medications, that's for sure, but what I want to talk about is the idea that having a good night's sleep is critical to who we are as people. It is only in sleep, and it is only in the deeper stages of sleep, that our bodies can truly heal themselves.

Everyone's heard of REM sleep, rapid eye movement. That's the point in our sleep cycle where our whole body becomes paralyzed. When our bodies become paralyzed, our airway also can become paralyzed. What sleep disordered breathing is is a list of different conditions that happen to people while they're sleeping, and particularly in the deep stages of sleep. Why is this so serious? We've talked about sleep apnea before and how deadly it can be, and we're going to talk about it more. We're going to break it down, but what's really crazy about sleep apnea is that it prevents you from getting quality sleep.

We all have a whole genetic profile that we're programmed to have, and our bodies are these incredible machines that have hormones and chemical mediators that will repair our bodies and keep us functioning well. When we are not getting the right amount of sleep, and it's not 8 hours. Maybe for some people it is 8 hours, but if you're not getting at least 5 good hours of sleep then you're very sleep deficient. That's a major issue. If you're sleep deficient your whole life is going to be affected.

How do you feel when you wake up and you haven't had a good night's sleep? Pretty terrible. How would you feel if you woke up not having a good night's sleep over and over and over again? After a certain point in time that would be normal, and so the admission I made by having sleep apnea is that I really didn't know that I was having problems. I was, and now that I've become more educated on this topic I really see all the signs that I've been missing.

What I want to go over real quickly here, before I bring my guest on, is why is a dentist even talking about sleep and sleep disorders? The answer's very obvious. Besides the fact that all day long I see people, and I look right down their airways with the bright lights, very different than most doctors. I have a completely different perspective about what someone's airway looks like. In addition to that, the very clear signs of sleep

disordered breathing are bruxism, grinding of your teeth. I am a great dentist when it comes to making brux guards. I made one for myself. I made many for myself. They work really well. What that brux guard or grinding guard does is it's just masking the true issue that I have, and that is sleep disordered breathing and sleep apnea.

Not everybody has sleep apnea, but a lot of people do. There's something that's out there that's a little different called UARS, upper airway resistance syndrome. We've mentioned this before, and we're going to talk about it more. This is the petite female version of sleep apnea. Everyone thinks sleep apnea is a larger man with a big neck, and the truth is that sleep apnea can affect anyone and everyone. There's a huge genetic component to it, and it's very important that the symptoms and signs are seen and noticed, because early intervention will lead to a much easier treatment. The likelihood of someone needing to go on a more serious treatment such as a C-PAP machine would be reduced.

We are doing a treatment called a mandibular advancement device. I'm calling it a mandibular adjustment device, because we adjust how you have your mandible to open your airway. When it comes to UARS, the problem is that people who are having a hard time with their sleep, nobody thinks they have sleep apnea, because they shouldn't. The reality is this is something that's going on all around us.

Today we're going to be talking to my guest, who is a dentist in Orange County, and he has been dealing with this for a lot longer than I have. We're going to get all of his insights. Before we do that, I just want to go to a quick commercial break, and then we're going to be bringing our guest on, Dr. Mark Cruz. I'll be right back.

All right, everybody, welcome back. Tonight my guest is Dr. Mark Cruz. Dr. Cruz, are you there?

Dr. Cruz: I am here, Joel. How are you? Can you hear me?

Dr. Gould: Fantastic. I can hear you just great. Thank you so much for calling in. How's it going tonight?

Dr. Cruz: It's going fantastic. Thank you for asking.

Dr. Gould: Tonight we have so many things that I want to get to, but I want you just to tell my listeners who you are and what's been going on in your dental practice. Why don't you go ahead and introduce yourself?

Dr. Cruz: My name is Mark Cruz. I've been practicing since 1986 down in south Orange County, California. Our paths, Joel, as you know, our paths crossed as a result of Steven Park, who wrote the book *Sleep Interrupted*. He has actually been a speaker in my mini residencies going up to a number of individuals that speak on this very complex topic, which is not necessarily about sleep, more about airway functioning, dysfunction. Although often times we focus on sleep, disturbed sleep, just being a symptom rather than the cause. It's a symptom of a bigger problem, which is airway dysfunction, which is a common problem in our species, homosapiens, the last 500 or so years. It's a

worldwide problem. I've been focusing more and more the last 8-10 years in my practice, and yet it is completely germane to what we do as dentists in restorative dentistry. Did that answer your question?

Dr. Gould: Absolutely. I guess I'll just clarify that we came in contact through Dr. Steven Park, and you've actually put together a group of medical professionals, including doctors and dentists and other allied healthcare professionals, because this is an issue that affects all of us, and someone you know. You were doing a mini residency, so for our conversation this is because this is not a well-known issue, all of this sleep disordered breathing and issues with airway.

Before we talk about how you got your group together, I want to get into how you came on to this topic. As a good dentist, we're taught a lot in dental school, and we gain a lot of experience out there in the real world. Each dentist has their own personality, and their practice may move towards one direction or another, orthodontics or root canals. What got you into the whole idea of sleep disordered breathing and airway?

Dr. Cruz: Pretty much from the outset I was always focused on comprehensive global treatment with the emphasis on diagnosis versus just drilling and filling or veneers or crowns or whatever. I always pursued a continuation in my education in treating what is known as gnathology and occlusion.

Dr. Gould: I wanted to interrupt, so you're saying gnathology and occlusion. For our listeners, I know you're so used to talking to dental professionals. Gnathology starts with a G. This is about how people's teeth come together and how they chew and how they function. I'll let you continue.

Dr. Cruz: Right. Exactly. I was just going to explain that. Those are fancy words for how the upper and the lower jaw function together with the temporomandibular joint and the teeth being just a part of a complex system. I use the fancy terms somatognathic system that describes the muscles, the bones, the joints, the ligaments, the tendons, the suspensory muscles of the neck that allow us to eat, speak, breathe. This is really what we deal with in dentistry, although we may choose to focus on one part of it like the teeth or the gums or the temporomandibular joints or the muscles. They don't work by themselves. They work in a synergy with each other, and in fact are part of the whole body in the way the entire body works.

That's mostly what I would work on, complex full mouth rehabilitations. People would come in with problems, often times to fix problems that were created many times by the dentist where unwittingly they would take care of a tooth that was hurting without really asking the question, why was the tooth hurting? Maybe it was because there was night grinding, as an example, what we call sleep bruxism. In more recent years coming out of the medical literature, specifically sleep medicine, we're starting to understand more that nocturnal bruxism and grinding, and even diurnal clenching, are related to airway dysfunction or sleep disordered breathing as part of an arousal response to maintain our proper breathing and airway function.

I started more and more focusing on dealing with the underlying problem versus the symptom. Traditionally we go ahead and say, "You're grinding. Let's make a night guard." The problem is although it mitigates the effect of the clenching and the grinding on the teeth, often times it makes the airway problem worse. That's a kind of synopsis.

Dr. Gould: Sure. The regular listeners on my show will know that I have defined what wellness dentistry is, and really I've defined it fairly clearly that we can't separate the teeth and the mouth. It's a part of the whole body. As dentists we're doctors of the mouth and all the associated structures, so it was really nice to hear you sort of summarize that. We talked that I've been a good boy giving my patients brux guards or grinding guards when I see signs of wear, and you're absolutely true that the biggest issue when it comes to sleep disordered breathing is that it isn't just dentists. It's the medical professionals, medical field in general.

We're treating a lot of the symptoms, and that's why I think that this makes sense that you were looking at the whole body. It makes perfect sense that you would have gotten into this. As far as I'm concerned this is quite a ways back, so you're definitely one of the leaders, or one of the most forward thinking people when it comes to this. In your practice did you come across this on a regular basis then you investigated, or you just said there's more to this and I want to investigate? What brought you to this position? How did you get interested in it?

Dr. Cruz: In taking the philosophical approach that I just described I always questioned and always asked why versus just how do we do this? I think it led me to that. Also having somewhat of an accident career being at UCLA and teaching and being on faculty and being in the faculty group practice for 10 years or so. Doing research. I guess it created a mindset to critically think about these things and ask why? What is the evidence to support what we're doing? What I found often times is it was butting up against dogma that I was taught that didn't fit well with me. The reasons why I was told that things happen just didn't make sense. So that's why I started going outside of the discipline of dentistry per say and started looking in other areas.

The problem is in healthcare in general in the United States specifically, to some extent in Canada, but less so, is that we focus on managing disease instead of making people well. We have gotten very good at managing disease symptoms. The American public want a quick easy fix. They want that pill. They want that device. They want that surgery. Then they're in, they're out, and they're done. Unfortunately that's not really the way things work with our bodies.

Dr. Gould: You touched on a lot of things there. Being Canadian myself, living half of my life in Canada and half of my life here, I'm really familiar with both medical systems. I still haven't quite figured out the US system yet, but being somebody who has been guilty, when I first started getting into sleep apnea, before I knew that I had this issue myself personally, it didn't make much sense to me what was going on. If people have this disorder why are more people not finding it out? I know now that just really no one's looking at it. People have an idea of what sleep apnea is, and they don't know that there's sleep disordered breathing that could be anyone and everywhere.

One of the things that I really like about the Canadian system in theory is that it's more based on science and research rather than drug companies trying to push their drugs. I don't want to blame anybody, because I think that we're all sort of guilty of just treating symptoms, especially as I see my bruxism patients as they come in day by day, and I have to tell them, "I've misdiagnosed you. There's something deeper going on here." In some cases.

What would you say, as for bruxism, because that's what we see so much in dentistry, what would you say the percentage of people who have obvious bruxism that is definitely related to sleep disordered breathing versus just what we would normally consider I'm under stress I grind my teeth? How do you think that breaks down?

Dr. Cruz: We actually spend quite a bit of time in that discussion. It's a hot topic. The evidence is mixed, and the problem with the evidence is the population that's looked at. First of all, let me just break it down. Obstructive sleep apnea is an end stage diagnosis. Another way of saying that is it's like let's look at cancer. Obstructive sleep apnea, when you have full blown obstructive sleep apnea, moderate to severe, that's like saying you've got Stage IV cancer or Stage III cancer. It's late stage. Our role really is to detect it before it becomes clinical, like carcinoma in situ or where you're at risk of developing cancer. So sleep disordered breathing is a spectrum where we're focusing just on the end stage. I would say obstructive sleep apnea is really just the tip of the iceberg of a major problem that is so pandemic worldwide.

Just think about this. Someone's who got obstructive sleep apnea, they're suffering from two types of big events. One's called an apnea, and one's called a hypopnea. An apnea is where you stop breathing for 10 seconds or more, and a hypopnea is where we have 30% of oxygen coming into the system or air coming into the system for 10 seconds or more. It's somewhat of an arbitrary cutoff for diagnosing a condition. Think about it. Physiologically the reason somebody stops breathing for 10 seconds or more while their sleeping is because something has gone wrong. There is damage in the central nervous system that says, if you stop breathing, no problem. It gets worse and worse.

Those individuals often times are not very symptomatic. If you actually talk to an obstructive sleep apnea patient they say, "It's no big deal. Might bother my spouse. I snore a little bit, but I'm fine. No problem." They're not even aware how much damage there is.

Dr. Gould: Mark, I want to interrupt you and say that I unfortunately was one of those people. I really didn't know that I had a problem, but in retrospect looking backwards everything that I have sort of come to know makes perfect sense. I feel a little embarrassed that I really should have recognized these symptoms, because as I'm seeing my patients a lot of them now that I mention this to some of them are saying, "I think maybe I might be having an issue." There's a lot of denial as well, because I know that people jump right to a C-PAP machine. They don't want to wear that gas mask forever.

I interrupted you. Sorry to stop you there. Go ahead. Go on.

Dr. Cruz: You're right. That's part of the problem. I've had patients say, "I don't care if I die. I'm not going to wear that mask." They don't understand that, first of all, there are many options to get the person out of a mask or not needing it to begin with. The point I'm trying to make, it's about early diagnosis. In fact, this can start as early as birth. We know that that is the case. Ron Harper from the UCLA brain research institute actually has done some studies as well as others, looking at children, premature babies or very young babies that can have what's called periodic breathing. It can start as early as the first year of life. It can actually cause brain damage that manifests and the snowball continues to build, if you will, and finally by the time it's caught it's already the individual's had this condition literally for decades.

A real important point I'd like to make. Individuals that are the most symptomatic are those individuals where it's earlier in the spectrum, and the reason for the awareness of symptoms and signs is because they're relatively healthy. Their autonomic nervous system is keeping them alive, keeping them breathing, which is the most important thing that we do from the moment that we're born to the day that we die, from one moment to the next. Not one hour to the next or one day to the next, but one moment to the next. Our entire physiologic systems are driven to protect that first and foremost, whether it's our metabolic system, our cardiovascular system, our brain function, our digestive function. That evidence is very clear. So many of the symptoms that an individual will report are related to that, yet those dots aren't connected, even by the primary care physician, the internist, the cardiologist.

That's the problem. We're looking at symptoms and not looking back at why is this occurring. An example, anxiety, depression, irritable bowel syndrome, chronic fatigue. Those all fall into the category of functional somatic syndromes that are functions of our airway dysfunction. I could on in more detail.

Dr. Gould: Okay. This is a half an hour show, and these are such interesting and important topics. From previous shows I have already confessed that myself personally I'm sort of the poster boy for this, because from a very early age I had problems. I was diagnosed with Crohn's disease, which is an autoimmune disease, but I also did not see an orthodontist until I was 13 years old. I was one of those kids that had the typical very retruded jaw, and I had a high narrow vaulted palate, and I had terrible allergies, so my nasal passages were completely blocked. I know looking back that it's kind of sad for me to think that it's taken us this long to figure this out, and I know that me being treated for my sleep apnea now I don't know what it's going to do for my Crohn's disease, but I do know that raising awareness on this incredibly huge topic, if I can spare one single child the childhood and medical issues that I have I'm willing to do anything to do that. That is sort of part of why I wanted to have you on the show, and why I really want to get the message out.

Wellness dentistry tends to come back to a lot of sleep apnea and sleep disordered breathing, but the reality is, and what I've come to learn and what most people are maybe just starting to figure out, is that this is everywhere and, again, I have a lot of patients they fill out their paperwork, they go to see a psychiatrist. The psychiatrist says,

what's the problem? I'm anxious or depressed. Here's a prescription. There's no thought that this could be an underlying issue causing that. I'm here with you. I know that we spoke, and my job and my goal, because after a dentist of 25 years' experience just doing general dentistry, to me this is the most important topic in public health, medical care, that's global really.

I just wanted to make it clear to everybody that we're understanding this. The message is not getting out there as much as it should, but I think we're working on it. We've got a few minutes left before we close. I wanted to ask you. You have your regular patients who you see, do you have people who send people to see you?

Dr. Cruz: Yeah, more and more now. In my local community I literally interface with my patient's physicians in integrating their care on a daily basis. Those physicians, whether it's an internist, cardiology, primary care physician, pulmonologist, sleep physician, neurologist, psychiatrist, OB-GYN, literally.

Dr. Gould: Everyone.

Dr. Cruz: They will refer patients to me, because they're understanding we've shared patients together. They're actually connecting the dots themselves as well, and we actually now are collaborating in what we call the multidisciplinary wellness collaboration, where we actually do case reviews on a video conference on a regular basis looking at our patients, beyond just our individual specialties. It's continued to increase and normal people in the public are demanding wellness. The whole question, just like the whole question on ADHD. We now know that most ADHD is caused by fragmentation of sleep, and put them on drugs. What are those drugs? It's speed. Really the first thing we should be looking at with our kids is how they're sleeping.

Dr. Gould: You brought up a lot of great points, and I want to have the opportunity to have you back on my show again. It is a half hour show, because I don't want to keep people occupied. I want to thank you so much, and I would love to have you back on a more specific topic. I think you really helped my listening audience understand what kind of a major issue this is. I thank you so much for your time. I look forward to seeing you very soon.

Dr. Cruz: Sounds good. Take care, Joel.

Dr. Gould: Thanks, Mark. Bye. Okay, everybody, we're just about out of time, and I want to say thank you to my producer, Maria DiGiovanni. You're the best. You can find us on SoundCloud and soon to be on iTunes, and our website. You can find Mark Cruz at www.MarkACruzDDS.com. Look him up on Google. He's great if you're in Orange County and you have an issue. Give him a call. All right, everybody, thank you so much. I look forward to next week's show where I'll have some pretty fantastic mind-blowing exciting guests. Thank for listening to Get Your Smile On. Have a great night. Goodbye.