

## Your Next 7 Medical Emergencies

### Howard Speaks Podcast 049

**Dr. Catharine Goodson**

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- Medscape mobile app - <http://www.medscape.com/public/android>

**Howard Farran:** It's an honor today to be speaking with you Catharine. You're a Townie, you have a course on Dentaltown, medical emergency mastery which has been a huge hit and thank you for joining me today. You practice outside of Houston and I've got to tell you my Houston story.

The first time I ever went to Houston I was lecturing and I went into my room with my luggage and I ran back downstairs and jumped in a cab and I said take me to the border, and the cab driver looked at me and said what? I said the border, I want to go visit Mexico. Take me to the border. And he goes that's like six hours away? I'm like no, Houston is right on the border of Texas and Mexico! He's like no sorry guy, you're six hours away. I was all devastated. That was my big plan.

Before we start, I've been doing dentistry 27 years, you said you've been doing it 30 years, I got out of school in '87, you got out in '85 right? First of all, gosh women dentists, that's come a long way.

Do you realize when I was a freshman in dental school there was one girl in the senior class. There was one. It was literally an all male profession.

**Catharine Goodson:** It's interesting because there were 10 in our class and a couple of them dropped out, so yeah there were very few.

**Howard Farran:** And now I think in the United States 56 dental schools last year's graduating class was 45% women and most of the deans tell me that in five or ten years it'll be more women than men because women-

**Catharine Goodson:** Have smaller hands!

**Howard Farran:** They have smaller hands. Well actually what they tell me, this might be too much information, but they tell me that girls start going through their hormonal changes real early, 10, 12, 13, 14- and boys do it at 17 and it kills their freshman year GPA and they say boys go to college freshman year and their away from mom and dad and their on heat and their drinking beer and they just walk out of freshman year with a 2.0 so the girls are crushing them on the GPA.

Now, it's really changed. Catharine, I know you're here to speak about medical emergencies and we'll do that, but what do you think about all the generalizations that men are writing in columns and articles about women dentistry that'll change, that they won't want to own their own business, they'll just want to be employees because they have husbands and children, so that will be fuel for corporate dentistry and change, and a lot of people say that when you have a change in demographics, that's where you get the big changes.

Do you think women dentists will, do you think they'll be very different than male dentists as far as like years they'll do dentistry, hours a week, per cent own their own business versus be an associate?

**Catharine Goodson:** What's interesting about that is when I was interviewing for dental school, there's only three dental schools in Texas so there's two University of Texas schools and one Baylor. When I interviewed at Baylor the question they asked me is why should I give you the seat when a man will work longer than you will? So this was back in the early 80's. I said there's no logical reason that you should, but I can assure you that I'm going to work as much as a man works. What I have found is with women, before we have children, we definitely do dedicate more hours per week and more time to the profession but when our children are young, that's just a natural decrease in the amount of time and then as our children age and go to school and get involved in activities, then often we'd be able to increase the number of hours or the number of days so I don't buy into the fact that women do not dedicate the time to the profession. I just feel that there's a transition at certain times of her life.

If you think about it, all of us as we age have physical problems. We all get back problems as we get older, our eyesight, we have problems with that so that naturally causes docs like you and I, practicing for the number of years that we have, to cut back. So we kind of have to take those people out of the pool and then look at the people who are in the mid range of their career.

I had children much later in life so that natural decrease in hours didn't happen until I was in my forties, but it was just for a season. So I say that as long as we're compensate of the fact that there's going to be times that women are not going to be practicing full time, now whether that equated to being in corporate dentistry, I think you

and I know that DSO's are a whole other subject so I don't agree with it that women are not equals as far as their work ethic. I just find that women actually balance two completely different careers exceptionally well.

**Howard Farran:** I just have to say one thing. I think the smartest people are the ones that have left the country they've been born in and travelled around the world and you look at history, some of the greatest minds- Peter the great, he did a whole long tour of Europe and collecting all this knowledge and information, Marco Polo and just Mark Twain, you know all these guys had one thing in common, they left their village at a time when 99% of people never left their village and they travelled the world and learned new things and the neatest thing about becoming a dental speaker was I've lectured in 50 countries and I want to say the biggest difference between men and women is the fact that, just like America there's no money in teaching, so it's all women and when you go look at the two million dentists around the world, if there is no money to be made in dentistry, Africa, most of Asia, it's mostly women and I've been aware of this for a long time.

One woman made me actually start crying. I said to her how many hours a week to you work? And she says you know, about 10 hours a day, five days a week. And I said I'm just curious, in US dollars about how much money do you make? And she's standing there with her three helpers and she said I'm so lucky, my husband has a really good job and I've lost about \$50 US a month for 20 years. And I just thought oh my God, she's just busting her butt, and \$50 US in Kathmandu, Nepal is a lot of money and that's why I just feel the women are sanely for this profession because so many men go into medicine, military, insurance banking, finance for money, money, money and suits and ties and gold watches and my God when there's no money it seems like there's usually no men either.

**Catharine Goodson:** It's interesting you should say that because I have no difficulty being the breadwinner of the family now. My husband's an engineer and does exceptionally well but if we're willing to be open minded about our role, yes, having a husband that earns substantially more than you actually frees up your opportunities because you're able to try new things, you're able to take risks without the devastation that goes along with being a practice owner or someone that's required to support a family.

So if you look at it like that, women are the risk takers.

**Howard Farran:** Well when a man walks up to me at a party and his wife is a dentist and he tells me the fact that my wife makes more money than me kind of makes me feel less manly, I always tell them try not to think about that while you're vacuuming.

Okay so let's get to the on point topic. So how did you get involved, tell us your story. I've heard it before but tell our viewers your story about how you got into medical emergencies because this hit home to you personally.

**Catharine Goodson:** Yes. What happened to me and actually for me is about 12 years ago I was caring for a patient and we weren't doing extensive dental procedures, we were doing a couple of root canals and crowns and a couple of extractions with the use of oral sedation at that time.

So what happened during the procedure is she began having an asthma attack. So the attack just started off very slowly, insidiously and then before I knew it, it was the full blown crowing and wheezing and it became an asthma attack that was actually out of control in a couple of minutes.

So we administered an albuterol inhaler and by then she woke up so we were helping her use the inhaler herself. We went from that to switching right over the using an EpiPen.

Long story short on this, we ended up calling an ambulance and thankfully she didn't have any- she survived the attack very well. She ended up needing to be intubated, that's how severe her attack was. So in the aftermath of that whole entire emergency I'm looking at the office and it is in shambles. The emergency kit is strewn out, there's paperwork everywhere and the staff was all off having adult beverages. I just sent them out the door.

So I looked at everything that was going on around me and the first thing that I asked myself was: what is my part in all of this? What could I have done differently and what factors led to this happening?

So it took me a while to really sit down and assess. I certainly couldn't do it all that night and the first thing that I realized is I looked at her medical history and I asked the question do you have asthma, but I didn't ask anything else, so I was using one of the stock forms at the time, that alphabetizes the medical conditions- asthma, allergy, angina, but mine didn't ask anything more.

So that was the first thing, I had no indication that she was a severe asthmatic because I asked, do you have asthma, and she checked yes, so I was prepared for someone that needed an inhaler occasionally. So I knew the medical history was a problem, it wasn't extensive enough and didn't ask the right questions.

The second thing is we had not been routinely practicing medical emergencies. I thought that because we'd been together 15 years that we inherently could read each

others minds and know what to do. So we had a very cohesive staff but we were, it was chaotic when we were in the throws of the emergency.

The third thing was our emergency drug kit was strewn all over the office. The drug that were sitting there inside the kit looked like this and looked like that so in the heat of the moment, we couldn't remember.

I knew to use an inhaler. I couldn't think anything past the emergency and then the fourth part of it was how did we respond to the emergency?

So it took me a while to realize those were the four components of the disaster that happened to me and one of the things that I decided was that I was going to develop a system for my office that would never allow that to happen again to me, or to decrease the probability of it happening to me.

That's how medical emergency mastery was started. It actually just started at my kitchen table with me brainstorming with the staff, deciding what we can do as a team to prevent this from happening. So, do you want me to keep on going?

**Howard Farran:** Sure. It's interesting what you said because every military general from any military will tell you the first casualty of war is the battle plan and when a medical emergency happens it is usually complete chaos if you haven't planned the emergency and even if you've planned it several times, the plan is still probably the first thing that dies.

**Catharine Goodson:** That's absolutely true and statistically speaking the average dentist, if they practice 10 years, will have seven medical emergencies.

**Howard Farran:** Seven every 10 years?

**Catharine Goodson:** Seven every 10 years. That's from the AMA and then the ADA, they did a separate study on it. So we just plugged in the number of dentists and extrapolated, so let's me just say this: I feel that more of us have emergencies that are not reported because we feel that there's shame associated with the fact that we had an emergency. Well we didn't have the emergency, the patient had the emergency and how we responded to it determines our mindset. There shouldn't be any shame or guilt in the emergency happening. It's our response to it that we need to have pride in and better preparation.

The first thing that I did was took the medical history and just threw it out and I realized if I would've asked better questions about her asthma, then I would have got better answers and I would have made better decisions. So I took every possible thing I could think that I wanted to ask about asthma and wrote it down.

Are you asthmatic? When was your last attack? Have you ever been hospitalized? So everything that I found out about this patient I put in a new medical history. So I went through every system and in doing that my medical history is grouped in systems so all of the asthma questions are together, all of the allergy questions are together, all of the cardiac, diabetes, so there are nine systems that I ask questions in and it's a logical progression. Now what I find from the medical history is number one, you ask a better question, you're definitely going to get a better answer. Number two, we invite patients into our practice so we get to decide who comes in our practice, who's a member of our family.

The same way that you really can't choose your family you're related to, well if we've accepted a patient into our practice without having comprehensive knowledge of their medical history, we're in essence bound to them. I think we know it takes a tremendous amount of effort to dismiss a patient so before we decide to invite a patient in, let's get better information.

Statistically speaking the average patient is on between three and five medications. So we're not going to find the perfect patient anymore. As we age, then obviously our patient base is going to age and the majority of us, in private practice or even group practice, we're finding that the baby boomers give or take five or ten years are the majority of our patient population.

So we have to be knowledgeable not only in the medications that they're on and the interactions but we also need to be able to speak to physicians in a language they understand. They don't understand that we want to use four carpules of anesthesia to take out five teeth. They understand micrograms, so on my medical history I actually have a section for conversion of anesthesia so that when we decide that we're going to do a consultation with a physician, because there's really no such thing as a clearance from a physician. They don't clear us from our responsibility of caring for the patient.

So after the medical history was completed I gave it out to all my friends and the doctors that I treated the patients with IV sedation and I asked them to critique it. In doing all that, there were some great questions that my colleagues added so after it was complete we were really happy with it and I just started sending it to everyone.

I said won't you try this and see how it suits you. Overwhelmingly I got the same response all the time. Oh my gosh, I wish I would have asked these questions because now that this patient and that patient are in the office and I'm having all these issues with them, if I would've asked that question I might have done something different, whether it wasn't accepting them as a patient or whether it was asking a physician to work with them to administer meds to get their blood pressure down or to use sedation or to have appointments in the morning.

They are just a variety of decisions that we'll make differently if we have a properly constructed medical history. So that was the first thing that I did and that was more substantial. I feel that if you're only going to do one thing correctly in whatever we're going to talk about in this system, it's to have a medical history that's comprehensive and that provides you with accurate information about the state of the patient's medical history the minute they walk in the door.

Yes it takes a few extra minutes to fill this out but it's well worth it. We just send it to our patients online or if they're elderly and they don't have access to a computer we just do it with them when they come in. It takes five minutes.

**Howard Farran:** So can you go over those nine group systems of med allergies?

**Catharine Goodson:** What do you mean?

**Howard Farran:** Well you said you grouped the health history into nine systems.

**Catharine Goodson:** Oh, you know what, if we take a little break I'll go and get it. Either that or I'll just bring it up here because I don't have it sitting in front of me right now. We cover asthma, allergies, cardiac issues, diabetes, thyroid, cancer and then we have like a miscellaneous group. So in that, I have found that everything that we need to know about a patient is on the page in front of us.

Now one of the things that I talk to, when I'm lecturing or just sharing this with other people, is as dentists, we want to be treated like physicians of the mouth so we have to act like it and we really have to up our game.

It's not expected that we be knowledgeable about every medication but we need to have the tools to do that and one of the things that I really like is using handheld apps because those are constantly updated like Medscape, so if you use something like that on your phone and you see a medication that's not familiar, we just ask the patient to give us a moment.

**Howard Farran:** What's the name of that app?

**Catharine Goodson:** It's Medscape and it's free. Not only does it give you the name of the medications, it'll give you contraindications and it just really helps you understand what that medication does and how it effects other organ systems.

**Howard Farran:** I think it's kind of funny that a lot of dentists want to be called physicians of the mouth but they always say I've met the enemy and it's me, it's the man in the mirror. I love the Theodore Roosevelt quote, he says if you ever found the person responsible for all your problems and kicked him in the butt as hard as you could, you wouldn't be able to sit down for a month. I see dental state boards are the

ones that pass laws that dentists can't give a flu vaccine, but the pharmacists can. How come a pharmacist can give a flu vaccine and not a dentists?

**Catharine Goodson:** That even extends to something in Texas like the facial esthetics. Dentists in Texas used to be able to administer BOTOX and JUVÉDERM and that's been removed because of a lobby to be honest with you. It was a whole group of dentists and most of us didn't do that to generate revenue, we just did it as one extra tool in our tool belt and I used to say I want to be like the Walmart of dentistry. I just want to be able to offer what the patients want and have them drive up into one driveway, not go all over the place. Their comfort level is with us.

**Howard Farran:** Yeah so dentists are taking away their own right to do BOTOX. Oral cancer, a certain oral cancer related to oropharyngeal cancer from HPV, and you don't see anybody asking about the HPV vaccine, administering the HPV vaccine, but you go into a hospital and a four year degree registered nurse will ask you the question and give you the vaccine.

**Catharine Goodson:** Right and we go up to the precipice, so we're going to use oral cancer screening devices but if we find something that's unusual, we've got to refer it so we have to send it to a surgeon, we have to send it somewhere else but you're absolutely right to have those conversations like that and if you really look at it, there are some things that probably will never change in dentistry, at least maybe in my career but that doesn't mean that we stop the fight, that doesn't mean that we're not vocal about it because we really want younger doctors to be able to have the reign to really practice comprehensive dentistry.

**Howard Farran:** So Catharine, tell our viewers, you committed 15 years ago, you actually went back to school one weekend in the month for two years up in Alberta, Canada to learn how to give IV sedation. Was that a good move for you? If there was a dentist, what should a dentist be thinking about committing to a two year residency one weekend in the month for two years? They have them in implants, they have them in anesthesia, tell us about your experience. Are you glad you did that? Would you recommend that to any of our listeners?

**Catharine Goodson:** I will tell you something. People have asked me about that many, many times and I told them that that was the single most significant decision of my entire career.

**Howard Farran:** I hope your husband doesn't hear that. Oh career! You said career. I thought you were going to end that with life.

**Catharine Goodson:** That decision changed my career forever. Prior to that time I was administering oral sedation so what I had determined was problematic about oral



sedation, I knew was so problematic for me that I was willing to do anything to provide what I knew was a more comfortable experience for the patient because in my hands, oral sedation was not consistent. So if I did the same thing, or altered it, because Texas is a state that doesn't allow you to titrate oral medication, so you get what you get and every factor that played into that, whether it's the patient's fat composition, whether it was that the patient had sleep apnea, whatever the situation was that that patient didn't respond ideally, then of course the blame is placed back on the dentist when the factors that we influence are very little.

So at the time I was hiring an anesthesiologist to come into the practice and one day the doctor that we hired didn't show up so we had a lengthy patient treatment that had to be rescheduled and actually it was the staff. They sat down, we had one of those pow-wows again and they said this is it, you have got to learn how to do this. So I went home and just kind of kicked the idea around and the next day I came back and they said you're going to school in Canada. I said that sounds like a really good idea, and they paid for it. I said how did you pay for it? We took your credit card and we paid for it.

**Howard Farran:** Now Catharine that was 15 years ago?

**Catharine Goodson:** It was 15 years ago.

**Howard Farran:** Has there been a big change in pharmacology? I've got to be honest with you, when I got out of school in '87, it seemed like when I was in dental school and I was reading legal settlements, board settlements, it seemed like for my four years at dental school and the first 10 years out, anytime you ever read of a million dollar judgment against a dentist or whatever it was a death and they all had one thing in common, they had an IV in their arm and I was always scared to death. I always thought you know what, it just wouldn't be worth it to work for 40 years and help all these people and have one guy die. It scared me. Has drugs and pharmacology changed in 15 years? Big time.

**Catharine Goodson:** What's so interesting about your statement is this: as a general dentist we have a limit on the meds that we can administer, so in saying that the meds that we can administer are reversible and the majority of the injuries or the deaths that have occurred are actually from the propofol or propofol mixed with something else.

As a general dentists in Texas at least, we are not able to administer that so there's a huge safety net that's built in for us as general dentists.

**Howard Farran:** Are they going to rename that the Michael Jackson drug?

**Catharine Goodson:** Probably, I think there's someone else-

**Howard Farran:** I don't think anybody had heard the name of that drug until Michael Jackson OD'd on it.

**Catharine Goodson:** Well actually that drug was one of the one's that was used in Joan River's procedure too.

**Howard Farran:** Oh is that right? So hers was an anesthesia accident?

**Catharine Goodson:** Yes it was. So that's so interesting because-

**Howard Farran:** So back up a little bit. Explain to the viewer who's not 52 like me, what's the difference between, when I came out of school in '87, there weren't reversible, explain what this new pharmacology reversibles are?

**Catharine Goodson:** Well the primary drug that we use is going to be something in, what we're more familiar with, the Valium family. The IV equivalent of that is Versed or Midazolam so with that particular drug, there is a reversal agent which is Romazicon or also called Flumazenil. Now when you're using oral sedation, you're also using a drug in that same family, that's Triazolam or Halcion. That is reversible as well with that same reversal agent.

If you only used IV sedation with that one primary drug, it's reversible.

**Howard Farran:** And that's because the reversible agent has a higher affinity for the receptor site and competes more heavily for it, knocking it off?

**Catharine Goodson:** Yes, as a matter of fact it does because we understand the lock and key theory and what we find is that if we titrate and administer small amounts of the reversal agent, it's not an instantaneous reversal like the patient is going to open their eyes and get out, what they're going to do is they're going to become more responsive to stimuli and that's really what you want from a patient that's sedated. The patient of course is breathing on their own, the patient has control of their protective reflexes and that's what is appealing about this level of sedation of general dentist.

We want the patient to be in control even if they have to use the restroom, they're able to tell you that with IV sedation.

**Howard Farran:** And compare that back in the day, in the 80's, there were mostly narcotics that didn't have reversals? What was the general IV sedation in the 80's?

**Catharine Goodson:** In the 80's they used Nabothian and Promethazine. They used that as a bolus, they mixed it together first and then they piggybacked, whether it was Versed or some other meds like Fentanyl, they could use all those back in the 80's so all of those, the common factor among all of those is respiratory depression.

Once a lot of those deaths occurred they took some of the combinations off the table and left dentistry with a tried and true, which is the Versed. We find that we need such a small amount because one of the things that we council the patient is that we tell them this is conscious sedation, so if we are accurate and straight forward with the patient, it's not unconscious sedation. If they happen to fall asleep then that's just beautiful but we have to be realistic and talk to the patient about and the patient has to have realistic expectations.

When it's unrealistic, then as general dentists we're not a match for them, that would be something that we would either suggest they do in a hospital or have oral surgeons take their teeth out or periodontists just do their implants but if we communicate honestly with our patients we find that what we can offer them is sufficient for their dental needs and it provides such a beautiful experience.

The majority of the patients have amnesia of the event, so even if they're awake they don't remember it and that's what's really beautiful for them. What it has done for me and that's why I can not recommend it more highly, even if a general dentists doesn't use it on a consistent basis that's the tool in their tool belt that we're talking about. Now you do have to use it consistently enough so your proficiency remains high but it's changed my practice of dentistry so much because if we're all honest with each other, I think we all get that knot in our stomach when we're getting ready to start caring for a patient that we know is anxious, they say they never get numb, that they have a huge spike in blood pressure when you anesthetize them, everything that we know causes us upset or when we're taking out a tooth that we know it's going to be difficult and we really wish the patient's brain just wasn't there so we could just focus on the dentistry. It's allowed me to focus on dentistry because the patient is relaxing.

The patient is either asleep or they don't care but I'm able to do the best dentistry that I've ever done in my career and I never realized how much the patient emotionally affected me.

**Howard Farran:** So Catharine, the American Dental Association recognizes nine specialties and the new one, the ninth one since I've been a dentist was oral radiology and I believe, most people believe that the reason that came about it because going from 2D x-rays to 3D x-rays. There's just so much information there, you really need someone to help you read that x-ray. Do you see dental anesthesiology becoming a specialty in your lifetime?

**Catharine Goodson:** Let me say this: there are programs in our state at least where the participants complete dental school, then they go to medical school and do a residency in dental anesthesia so they are truly a specialty but I very much believe that general dentists must maintain the ability when properly trained to provide that in their

office. I've been to Austin to help lobby for the ability to do that because in our state there's a move to remove that privilege from general dentists. So one of the things I find is every time something is taken away from us it becomes the responsibility of a specialist when in essence it's still our responsibility when we refer a patient to another practice to make sure that they're monitored and cared for properly. So the specialty in Texas does exist but by the same token, general dentists must maintain their ability to care for their patients in the most relaxed way possible. So in the beginning it was just oral sedation. I cannot encourage doctors more to make that transition to up their game and study IV sedation.

**Howard Farran:** So there's 125 000 general dentists in the United States and if a dentist committed to this and did a weekend a month for two years, describe what you think his practice would be like five years after they did that versus before? Does it change the mix of your dentistry? Do you get more word of mouth referrals? I always believe that the number one barrier to dental treatment, and the answer in all economics is price, but outside of price dentistry is a little special in the fact that fear is huge and it's a weird fear because I mean we've all seen the patient that came in with nine pierced earrings, clip through their nose, a clip through their lip and fourteen tattoos and they say I'm afraid of needles. And you're like dude, that tattoo was four hours of needles, so describe what that dentist- she's been practicing for ten years, she commits to this dental anesthesia a weekend a month for two years, what would her practice look like five years later? How did it change your practice?

**Catharine Goodson:** Well what's beautiful about that is that our state boards want us to become proficient before we actually offer the services to our patient population so they require that we do not only a certain number of cases in training which is 20, but they require that we keep our certification by treating a certain number of patients each year. What I find as the biggest factor to people utilizing their IV sedation training is them actually doing it. They're waiting for perfection, they're either waiting for the perfect patient, they're waiting for the perfect time- it all boils down to the same thing though, they're afraid. So what does that fear look like?

I say in most instances fear coming out sideways looks like something else. So fear looks like, I can't accept that patient because they're medically compromised or I don't have the time to do that or whatever their excuse might happen to be. This is what I found happen in my hands in the beginning when the staff was learning how to work with me, when I was really getting proficient in my IV lines, to be honest with you, that was my biggest stumbling block was getting the IV in and getting the stick right so for me I dedicated one day a week to just doing IV sedation so that was repetition and then I purchased a mannequin arm and at home at night I practiced the sticks on the arm.

Both of those things together, saying yes on Fridays, then that changed to Thursdays and Fridays, but not only does the doctor, it's essential that you make the commitment to whether in the beginning you have to offer it at no charge, or in my practice, the cost of the sedation is the most minimum it can be. I charge a very, very low amount. I don't want the cost of the sedation to be a reason for the patient not to accept treatment and that's what we find with most dentists.

They take the cost of their education and they say well it cost \$25 000 so I have to charge \$450 an hour to recoup that money in two years. I did the exact opposite. I offered it at a very low fee because for me as a general dentist before sedation and a general dentist after sedation, I want to be able to say yes. No matter what, yes I can do this filling now. Yes I can make time in that schedule and yes I can make time to sedate you and take that tooth out.

So for me everything I do is to increase the yes factor and that's what our staff, we talk about every day in our huddle, who can we say yes to? So that's what I find will be the most appealing to general dentists and I even as part of my training will go into dental offices where the doctor has been trained in IV sedation and they've literally never used it.

So I go in and we actually practice on the staff members, we have some patients there that we do some cases on and we just refresh that doctor's knowledge and build her confidence and then I go back when they do their first couple of cases and I just stand there in the corner because I find the biggest fear level is getting the IV started and putting that first drug in.

So once you get over that and you begin to make the mental commitment, I'm going to do five cases a month and then you increase to 10 cases a month and for me I had goals and obviously if the patient doesn't need it I'm not going to suggest it but in many instances I didn't charge for the sedation because I not only wanted to build my confidence but we need to be able to see how every type of patient responds.

Patients that are medically compromised or patients that are larger, patients that are smaller, patients that are elderly, all of those patients are going to give us that confidence that we need to be able to treat the patients and focus on their mouth and not worry about the monitors going off.

**Howard Farran:** So Catharine talk about your handbook, treatment of medical emergencies in a dental office. You have in office staff training, you have office type. Talk about your website and talk about that book which is down at Second Edition and tell the listeners about that, how they can find it, what they can learn.

**Catharine Goodson:** Okay. We were talking about the medical history and I'll just touch on really briefly the other elements that I feel like as a center for a cohesive team and I have a website that's actually my name, so it's Catharine Goodson and what we have on there-

**Howard Farran:** That's Catharine with a C. Catharine Goodson.

**Catharine Goodson:** One of the things you'll find is actually an education section for the dentists and we talk about what you can expect to cover in your training because we talked about the development of a comprehensive medical history. The second thing that I've done that I feel is significantly different than anyone else in the profession is I took the drugs out of the emergency drug kit and eliminated everything that the general dentist either wasn't qualified to use or didn't know how to use and I think we all know we've got ampules of medication in there and we don't know what to do with them.

So I took the drugs and I relabeled them, like what we were talking about. We went from a drug that looked like this which is an Albuterol inhaler, to one that looks like this.

So what I did was, these are ammonia ampules that are used to treat syncope or fainting and on this label I put the name of the drug, the medical term and the layman's term and the directions for use. So every one of the seven drugs that I've included in the emergency drug kit are labelled like that. This is what the treatment for hypoglycemia looks like. So each one of them are labelled like that. They've got the name of the drug, medical, layman's, directions for use.

This is what I found- when a patient has a medical emergency, all we're required to do is the next right thing and for doctors the next right thing is maintaining an airway and monitoring vitals. If you don't do anything else except those two, you're going to be fine. This is where the staff training, which is the third step in my system, the staff training needs to be concise and reproducible so that when you're in the throws of the emergency, if the staff or you can only recognize one or two symptoms, you can go into your drug kit and say oh they fainted, here's my drug or oh they have chest pains, here's my drug.

With this system, anyone can recognize it.

**Howard Farran:** Correct me if I'm wrong but 27 years of reading these emergencies come and go, it seems to me that one common thing is a natural reflex, is to hit the button and set the patient up. They're having an emergency and you hear these stories where the patient was sitting up and when the paramedics got there the patient is sitting up and the head is over and they suffocated.

Do you think it's a natural reflex for the assistants to hit the exit chair and get this patient up? Talk about maintaining the airway because it takes two weeks to die without food, it takes only a week to die without water but it only takes five seconds to die without oxygen. Will you talk about maintaining the airway and do you think that's the number one lethal issue?

**Catharine Goodson:** Well it's very interesting you should say that because if you think about how we're programmed as doctors and assistants is the major reason a patient is going to have difficulty with their airway is if they've aspirated something so that is where our go-to response come in. It's to set the chair up, it's to pat the patient on the back, it's to try to get them to clear their airway themselves, so that's the only response we know.

If we're really doing our job well it is so automatic that to relearn that required consistent training and that lead me into the third step of my training program. If we don't learn anything else in this training program but one thing, in my system the doctor never leaves the patient's side and if you think about emergencies, the doctor is going to get a drug, the doctor- and even when I go in to do the training, the doctor's eyes never need to leave the patient and we hammer that home over and over again.

So what I've done in my system is I've given every staff member a specific role. We call them responders. So the first responder has very, very certain roles and doesn't deviate from those and in this system we only need three responders so very small staffs, very large staffs.

The second responder will key off what the first responder does so it's a hierarchy and the determining factor, the doctor start the cascade so the doctor will say whatever they believe the emergency or they'll say if they don't know what the emergency is they're going to focus on maintaining the airway and they're going to get oxygen.

So I say that this training system will alleviate every responsibility of the doctors except maintaining the airway. Now the final decision to call for assistance lies with the doctor only and in the majority of our emergencies the go-to response is to sit the chair up and call 911 and there's a frantic confusion about it so I've also written a 911 script, so you just read off the script. The script is at the front desk, the script is taped in all different areas and in that script you just read it like it's presented and there is one of the staff members, one of the responders that's just responsible for making the call, clearing the reception area, making sure that the responders can get in so this system can be reproduced with as few as three responders and a doctor.

**Howard Farran:** How many times- the last big one in the news that when the responders got there, the doctor is in a medical dental building, and they were running down the hall of the medical dental building looking for other doctors in their medical

dental building and then of course the patient was sat up, slumped over, dead. That's so sad because they just panicked.

**Catharine Goodson:** It's so sad and I want to add some other key point to this. The person most likely to have the medical emergency in the practice is going to be the doctor.

**Howard Farran:** Say that again?

**Catharine Goodson:** The person the most likely to have the medical emergency in the practice is going to be the doctor. So the doctor may have a cardiac arrest, the doctor-

**Howard Farran:** The doctor himself? The most likely medical emergency is that I'm going to croak?

**Catharine Goodson:** Statistically speaking you're going to have a problem.

**Howard Farran:** Are you serious?

**Catharine Goodson:** I'm totally serious. So one of the things that we do as part of our training and the staff doesn't know this, only the doctor does, towards the end of the afternoon but I ask the doctor can you go into another room and get me a drink of water or something like that, or they go in the other room and they just lay on the floor.

I send a staff member in and I say please let doctor know we're ready, and there's the doctor laying on the floor. So the staff needs to be able to reproduce that same system when the doctor is the patient. So when we do the in office training we delegate the roles for responders and in the morning we cover the material we're talked about.

How to construct a medical history that's customized for your practice, how to recognize signs and symptoms of the seven most commonly occurring emergencies and how to treat those so that's what we do in the morning.

Then in the afternoon we actually put some life into it. We assign responder roles and we go through every emergency and the beauty of that- and I tape it. So I have the video camera there and I tape it and then I make a little iMovie for them afterwards and they can use that as their continuing education.

So one of the things that we find is the fear and the apprehension of caring, they're caring for each other as the responders and the patient, and they're still so afraid so by the third or fourth emergency the comfort level is increasing, the confidence is increasing and so by the end of the day they feel very comfortable treating every emergency. Then we do the doctor emergency at the end and make sure of course that they can care for their doctor and it's an amazing progression from the beginning of the afternoon, where they're afraid to touch each other, they're afraid to ask each other the



questions about the symptoms they're having, and the realization is this, they've all said the same thing: if we're afraid to touch each other, that's what would happen with a patient.

So we eliminate the fear where we've got a comfort level and we make sure that even if they don't remember anything else from the training except allowing the doctor to focus on the patient maintain the airway and maintaining the patient's vitals, the doctor doesn't do anything else but that and then start the chain.

So once he delegates to the first responder, he can either identify what he believes the emergency is or just say my patient is having difficulty breathing, and the first responder just goes and gets the whole drug kit because now there's only seven components in there, there's nothing else and one of the other points that I want to make about the emergency drug kit, it's very important to understand this.

If you don't know how to use the drugs in your drug kit, you need to get rid of them because you're held responsible for being able to utilize and properly administer the drugs that are in your drug kit. Saying I don't know how to use that, that Epi-ampule, so if the patient needed that, if that would've been their solution to their problem and you didn't know how to use it, you might as well just get ready to write a check or go to jail.

So that's the one thing that I realized early on as I checked, as least in the areas around our state and I've travelled to Chicago, Florida, New York, Arizona training in these and I've checked the laws out in each state and you are held responsible for knowing how to administer the drugs in your kit. So take the ones out that you're not qualified- learn the seven that you are qualified and that you're required to use and know them like the back of your hand and if you can't remember them, put a sticker. I mean I have a label but every dentist can do this.

They can do this at home. They can make their own labels, they can package their own drugs but when we took all the drugs out and made it simple it changed the doctor's lives that we worked with. They said gosh, I can do this. If there's an emergency that I can't identify, I can at least look through seven.

**Howard Farran:** Do you want to go through those seven?

**Catharine Goodson:** Yes absolutely. Now I'm going to put my glasses on because I have them in order of what I find is the most common to the least common, if that's okay.

The most commonly occurring medical emergency is syncope. So we find that the patients are going to faint or lose consciousness more than any other emergency and the most important thing that I can say about that emergency is so many dentists have

these little ampules taped up above their light, or by their light handle and those have been denatured by the heat from the light for a long, long time. So that is a drug that you absolutely need to keep fresh. You just discard all the ones that you have in your office right now and you can keep it throughout the office but there's no reason not to keep it in your emergency drug kit.

**Howard Farran:** Say the drug again?

**Catharine Goodson:** It's an ammonia inhaler, so it's these little bitty ampules.

**Howard Farran:** And those need to be, should they be in the refrigerator to last longer?

**Catharine Goodson:** No, they can, and really I've never refrigerated them but the way that I have it packaged, you can clearly see the expiration date and that's what I recommend is that once a month the staff go through a verbal drill and then the doctor will assign a staff member. You talk about syncope, you talk about angina and it keeps it fresh for the staff too so they'll take the drug out and remind everybody else how to use it.

So that's the most commonly occurring medical emergency and if you can master that, which is real straight forward. You're just going to separate the ampule or break it and you're going to wave it really far down from the patient's nose. You're not going to actually put it up in their nose so it's much easier to use than you think because you think it's like a magic wand, you wave it like that and they're supposed to wake up but it really doesn't happen like that. You want to just gently wave it and then you're going to use supplemental oxygen too.

The second most commonly occurring medical emergency is asthma. Whether it's of the extrinsic type or the intrinsic type, you don't have to know which is which but you have to be able to understand that in most instances the patients are used to using their own inhaler, so when a patient is asthmatic you want to ask them to bring their own inhaler with them to the appointment. You're still going to have your supplemental Albuterol inhaler for them but the patients are used to using their own and they know when they're getting ready to get an asthma attack and most of the time the stimulus for that is going to be fear. It can be cold, the temperature, it can be an irritant in their throat so any of those things occur, it can precipitate an attack but they know it's coming on so you're going to offer them yours if theirs is empty or something like that but they're going to want to use their own.

The third most commonly occurring medical emergency is a mild allergic reaction. Now most of us are completely latex free, so we don't have that instance but the practices that don't, I recommend that if a patient is latex allergic that they treat them first thing in the morning because the powder from the latex just disperses through the office, so if

you treat your latex allergy patients first in the morning, you very rarely are going to have an incident at all. So for that we have Benadryl tablets in here and the most important thing about the Benadryl is you can't allow a patient to drive home after.

**Howard Farran:** You can't?

**Catharine Goodson:** You cannot because it is a sedative so they either need to have transportation or you need to provide transportation for them.

**Howard Farran:** And what are your thoughts on the subject after nitrous oxide?

**Catharine Goodson:** What I recommend first is doing an oxygen flush for almost as long as you had the nitrous on, so let's just say you've had it on for an hour, I believe it's going to be necessary to maintain the oxygen flush for about 45 minutes but I feel quite comfortable with the patients driving home after that if they feel comfortable. I will tell you something, patients are straight forward with you. If they don't feel up to it, they're not going to get out on the road so it's kind of like someone not driving when they've had a couple of drinks. Most of us are quite straight forward about that.

So the fourth most commonly occurring emergency is going to be a severe allergic reaction. So that's either going to be contact with an irritant that they've never been in contact before. It could even be a bite from something that happened in the office. We're going to use an EpiPen for that. So even things like the red dye in Prophy Paste, if you don't ask that question on your medical history, whether you're allergic to red colors or red flavors, which my medical history has that on there, you might use the wrong kind of Prophy Paste on them and precipitate an acute allergic reaction so that's what we use the EpiPen for and all of that is covered on the label that's at the front of the pen.

The next most commonly occurring medical emergency is going to be chest pain or angina. There are two different types of chest pains and one is a chest pain that occurs periodically in the patient, that's the norm for them so some of it's induced by exercise, some of it's induced just by fear, there are many patients that take Nitroglycerin as part of their daily regimen. Their controlled, it's something they know when a chest pain is coming on.

The other type are patients that are having chest pain that is actually precipitating a cardiac event. Regardless of which type, you're going to start off with the same thing. You're either going to use Nitro tabs or Nitro spray. I prefer the tablets for two big reasons. Number one is you can see that it's dissolved, so you've placed it in the floor of the mouth and you want to use a cotton applicator that's moistened and you just want to move it around the floor of the mouth until it's absorbed into the tissues down there.

You don't want to use your finger through your glove. It's absorbed through your blood so you'll have a big decrease in blood pressure as well and you'll get the headache too, so you really don't want to touch it. You really just want to-

**Howard Farran:** I want to stop you right here on a detail. If a patient was in the chair having chest pain and you start thinking oh my gosh, this guy is having a cardiac event, before you would go and get nitro tablets would you already call 911?

**Catharine Goodson:** No, I wouldn't have and I'll tell you why. Number one is we're going to administer supplemental oxygen first. I'm always going to use a vasodilator first. It just takes a moment to differentiate. So if you're using a vasodilator and there the angina was just caused by stress, and I ask that question in my medical history, do you have chest pains that are stress induced? Do you have chest pains that are exercise induced? So the bottom line is to know your patient. If your patient says yes I have chest pains every time I walk up a step or every time I'm rushing around in traffic and he says oh my chest is hurting me, then you know it's induced by stress or it's induced by a factor that you can alleviate.

On the flipside of that, if the patient has never had chest pains before, I'm still going to go through the protocol quickly. We're going to administer supplemental oxygen, we're going to vasodilate and then we're going to use an Aspirin and if those chest pains don't decrease, now in my training I recommend two minute cycles. If you don't see a decrease in two minutes, then yes we will make a call but we must go through the protocol first because even if you're calling 911, those are all the next right things to do. You want to vasodilate, you want to take the pressure off the cardiac tissue musculature and the veins, then you want to go ahead and administer that Aspirin and then you make your decision to call, and I'm talking about going through it in two minutes.

**Howard Farran:** Okay.

**Catharine Goodson:** So after that, and we've talked about any chest pains or cardiac, let's just go into an actual heart attack. Now a heart attack may be insidious, like we're speaking about now, or the second thing it could be an overt cardiac arrest where the patient just simply loses consciousness and they may say my chest is really hurting and they may just lose consciousness.

Then you know of course your patient is having a heart attack. You're not going to want to place an aspirin in their mouth or anything in their mouth. You want to supplement their breathing and then call 911.

**Howard Farran:** And what you're saying is the dentist stays by the patient's side, maintain the airway, the supplemental oxygen and person number two or three is on the phone for 911?

**Catharine Goodson:** Exactly. If the doctors don't remember anything else except to administer supplemental oxygen and maintain the patient's vitals, they've done really well.

**Howard Farran:** And it's sort of tough because again, back to military, those generals say, you train these kids for a year but the first gunshot fire most of them are panicking and that medical emergency is frightening and everything we're talking about, when it actually happens, they have a heart attack, the assistant might be the calmest person in the entire office.

**Catharine Goodson:** No doubt. What I ask the doctors to do is to set up a dummy emergency just a couple of days after the training. So I'll ask them to have their neighbor come in or somebody come in and do a mock, or a fake emergency. That way it keeps it fresh. It keeps it fresh.

**Howard Farran:** We always hear the silent shopper, man that would be a service, a silent medical emergency. Someone who just goes to a dental office and passes out in the waiting room.

**Catharine Goodson:** You'd be so amazed and when we do the consultation for the doctors to see if they're a candidate really, if they really are willing to make the time commitment because after the training is complete I provide all of the documentation for a medical emergency. So the doctors have their documentation, should they have one they've got the contents of the 911 call, they've got a worksheet to make sure that they can maintain the quality of their emergency drugs so we have all the expiration dates listed as well as the oxygen and you want to make sure of course that you have an adequate amount of supplemental oxygen.

**Howard Farran:** Did you say there were seven and you went through five?

**Catharine Goodson:** No there are seven and we've covered six.

**Howard Farran:** Okay. Syncope, asthma, mild allergy, severe allergy, chest pain.

**Catharine Goodson:** Heart attack.

**Howard Farran:** Okay heart attack, that was six.

**Catharine Goodson:** And the last one was hypoglycemia. So for hypoglycemia that can run a gamut from everyone that is diabetic and either hasn't eaten or is apprehensive or just whatever it can be. Two, a young girl that's studying for finals in college and you're getting ready to take out third molars and she hasn't had anything to eat because she's a nervous wreck. So she has a drop in blood sugar too so the hypoglycemia can really cover a wide gamut of patients.

So those are the seven that we do our training for, that you've got emergency drugs for and that I want the staff to be proficient.

**Howard Farran:** Go over the biggest one in the news, that was the Jerry Garcia, the Grateful Dead, they say he died because they didn't know he was a diabetic.

**Catharine Goodson:** I believe that and in our section on diabetes, whether the patient is a type two and is controlled by medication, whether they're type one and controlled by Insulin and or medication, we're going to ask those questions. One of the questions is have you ever used medicine for diabetes because so many patients, if they were controlled years ago, they don't feel like their sugar levels were normal or whatever it is and they take themselves off medication. The other thing that I ask that I feel is essential for diabetics is on the medical history, you ask: when was the last time you took your blood sugar and what was the reading? If someone is controlled they're going to say I took it this morning, I took it yesterday or I took it last night but if someone says I haven't taken it in six months then before you do any treatment you're going to want to take it so part of the armamentarium that I suggest that doctors have is a glucose monitor.

**Howard Farran:** So Catharine, we're out of time so before I let you go, the final question is, if someone wants to learn more from your amazing mind, tell them what they can learn on your Dentaltown course versus the book on your website versus the videos on your website, just real quick go through more tools if they want to learn more.

**Catharine Goodson:** Absolutely and thank you for giving me the opportunity to talk about it. The course that we have on Dentaltown covers everything that we talked about today, so it covers it in about an hour and we go through construction of a medical history, the components of the drug kit, how to train your staff, what to do afterwards. So it covers all of that. If you visit the website-

**Howard Farran:** Catharine Goodson.com.

**Catharine Goodson:** Yes Catharine Goodson.com.

**Howard Farran:** And by the way to our viewers we always put a full transcript in the notes and that'll have the website links in there so if you're on your StairMaster right now or you're on a bicycle or doing laundry, this will all be in the notes.

**Catharine Goodson:** And of course it goes through in detail what each section will cover and there's so much information on there. There's some blog posts and there's videos that I've done with Randy Alvarez from the Wellness Hour and it goes through each of these sections. Now I wanted to say that I'm very grateful to have the opportunity to speak at the Townie convention this year and we're going to go into this

in more detail, I'm going to pass out the copies of the medical history, all of the forms that you'll need to document that you've practiced in your emergencies, your equipment, your supplies so all the attendees will receive that and then they're going to see if they want to reconstruct their own emergency drug kit, how to do that as well. So I'm going to provide you with the tools to do that.

**Howard Farran:** Well Catharine, I love your amazing mind, I love your commitment to dentistry. Thank you not only for what you do for your patients and what you do for dentistry but what you've done for Dentaltown. I'm your biggest fan, thanks for spending an hour with me.

**Catharine Goodson:** Thank you so much Howard for the opportunity. I'm looking forward to seeing you in Vegas.

**Howard Farran:** I can't wait. I hope we drink so much at the bar that I'll have a medical emergency at the bar at the Bellagio.

**Catharine Goodson:** Well when you see a red purse, that's my kit.

**Howard Farran:** Okay.

**Catharine Goodson:** Thanks, I'll see you then.

**Howard Farran:** Alright, see you Catharine, bye-bye.

**Catharine Goodson:** Bye-bye.