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	GFX Center **dLife** **For Your Diabetes Life!**	**VO Jim Turner** **dLifeTV, the only show for your diabetes life. Packed with information, insights, cooking, and real stories about real people. dLife brings it all together to help you life a healthy diabetes life.**
	Various shots of upcoming segments.	**VO Nicole Johnson Baker** **Today on dLife, an office visit to one of the world's premiere diabetes doctors. Also a digestive disorder that affects many people with diabetes. You may have it and not even know it. Plus more real stories about real people living with diabetes.**
	Lower Third: **Nicole Johnson Baker**	Nicole Johnson Baker Welcome to dLife, your source for a healthy diabetes life. Some of the most important clinical trials in the history of diabetes have been performed by Harvard Medical School professor, David Nathan. His research has convinced him that tight blood sugar control helps patients live longer, better lives. dLife visited Dr. Nathan at Massachusetts General Hospital where he is the Director of the Diabetes Center.
	Lower Third: **David Nathan, MD** **Director, Diabetes Center** **Massachusetts General Hospital** **Various shots of Dr. Nathan at work.**	Dr. David Nathan My name is David Nathan. I'm a physician. I specialize in the area of diabetes and have done clinical research and clinical care in diabetes for about 25 years.
	Lower Third: **David Perkins** **Type 1 Diabetes** **Shot of David Perkins walking through hospital.**	**VO Dr. David Nathan** **David was referred to me about 7 years ago by his ophthalmologist and he was seeing him at that time because he had actually fairly progressive eye disease.**
	Various shots of Dr. Nathan with David Perkins.	Dr. David Nathan: Hi, David. How are you?

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		David Perkins: Good to see you. Dr. David Nathan Good to see you as well.
		Dr. David Nathan Today's visit is going to be a typical routine visit.
	Shot of Dr. Nathan talking to David Perkins.	Dr. David Nathan So tell me, how have you been doing since I saw you last time?
		Dr. David Nathan During that, we'll discuss his diabetes control, I'll look for whether the complications are stable and we'll just generally talk about what's going on his life so we can help manage his diabetes.
	Shot of David Perkins talking to Dr. Nathan in exam room.	David Perkins I've been doing real good. I've been focused on my number lately. I think I've brought it down uh… significantly.
		Dr. David Nathan At the time he came to me, his glucose control was quite poor.
	Shot of Dr. Nathan talking to David Perkins in exam room.	Dr. David Nathan I just looked actually before you came. Your A1c was like 13 percent almost. It was over 12 percent. It was really high.
	Lower Third: **An A1c of 13% represents a 3-month blood glucose average of 380 mg/dl.** **The recommended A1c goal is 7% or lower.**	David Perkins For a number of years, I didn't manage the disease properly. I wasn't taking control of the daily routines that a diabetic needs to, so I kind of spiraled out of control. I needed to see a specialist to develop a plan to get me in tighter control.
	Shot of Dr. Nathan with David Perkins in exam room. **Lower Third:** **People with diabetes should have a dilated eye exam annually.**	Dr. David Nathan Now this is not the eye exam that your eye doctor did because I'm not going to dilate your eyes. But I want you to do, look straight over there and I'm going to look right in your eyes.
		David Perkins

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		Initially, the impact of my eye disease was that I was having vision problems in my left eye. My right eye was keeping me going. It was a problem reading and having to, you know, write out documents. It really was a scary time for me. I'm in business sales. Were I to lose my ability to drive, that would reshape my career dramatically.
	Shots of computer animation. **Upper Third:** **Courtesy of www.cartoonMD.com**	Dr. David Nathan The eye disease that accompanies diabetes is basically an abnormality in the blood vessels in the back of the eye. Elevated glucose levels affect the cells that line these vessels, make the vessels weak and then they start leaking fluid and also leak blood, cause scar formation and lead to loss of vision.
	Photo of David Perkins and family.	David Perkins Life's a long road and I've got young children now and I want to be there and experience all the things and see everything. So I think the loss of your vision is a serious complication that I had dismissed.
	Shot of David Perkins having his eyes examined by Dr. Nathan.	Dr. David Nathan And In this eye, I can see the old laser scars.
		Dr. David Nathan David's complications early on were probably affected by his poor diabetes control. That is, he developed eye disease that actually needed laser therapy, he developed some neuropathy which is nerve disease which is quite common in people with diabetes.
	Shot of Dr. Nathan examining David Perkins' foot.	Dr. David Nathan: Do you feel it when I touch you on each toe? David Perkins: Yes, I do.
		Dr. David Nathan The usual follow-up of a person with diabetes is that they need to see specialists to take care of specific complications.
	Shot of Dr. Nathan examining David Perkins' fingers.	Dr. David Nathan So what you had was a trigger finger, right? Was that the finger? So it was triggering like this.

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	Lower Third: **Trigger finger is caused by glucose sticking to tissue and/or tendons.**	David Perkins Trigger finger is just your finger gets stuck. So on one of the recent visits in, Dr. Nathan recognized that. And I had a small procedure done by a hand surgeon called a release, and since then, there's been no pain and that's been the extent of my complications.
		Dr. David Nathan Diabetic complications have two flavors to them. One of them is the diabetes-specific complications; eyes, kidneys and nerves. The higher your blood sugars over time, the more likely it is that you're going to get one of these manifestations or all of them. The other flavor is the cardiovascular.
	Shot of Dr. Nathan taking David Perkins' blood pressure.	Dr. David Nathan 122 over about 70.
		Dr. David Nathan And those are f- not specific to diabetes, but they occur more often in diabetes. For the first one, sugar control makes a difference. For the second group, there are a number of things that make a difference; the fat in your diet, your cholesterol levels, blood pressure levels and the diabetes control.
		David Perkins Dr. Nathan's been a great coach for me. He really has. He has been very instrumental getting me back on path.
	Shot of Dr. Nathan talking to David Perkins in exam room.	Dr. David Nathan Well, David, great checkup. Your eyes are stable, as your ophthalmologist thought, neuropathy is totally stable, and your A1c came back at 6.7, so that's actually- that's great. <laughs>.
		David Perkins In managing it, you've got to wake up every day and say, "What can I do today to make my number better?
		Dr. David Nathan

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		It's hard not to get personally connected with your patients when they have diabetes. It affects every part of their life and every part of their life affects them; having children and school and jobs and their schedule. So you end up having a really close connection with them because you know what's going on with their life if you're doing your job.
		David Perkins Staying in tight control is very important to me. I recognize that it is a disease and it needs to be treated daily as a disease and the only person that can take control of it is yourself.
		Dr. David Nathan In the end, you really are a coach. You're trying to coach them as to how to deal better with this chronic condition, and how to maintain blood sugars and their overall health long term.
		Nicole Johnson Baker Thanks to Dr. Nathan. Up next, a look at an under-diagnosed complication and what can be done about it.
	GFX **dLife** **For Your Diabetes Life!**	
	Shot of Howard and Dr. John De Csepel on stage. **Lower Third:** **Howard Steinberg** **Creator, dLife**	Howard Steinberg Gastroparesis is a digestive complication that is under-diagnosed in people with diabetes. In extreme cases, it causes nausea, vomiting and abdominal pain, but more commonly, it can wreak havoc on blood sugar control. I'm joined now by Dr. John De Csepel, Chief of Minimally Invasive Surgery at St. Vincent's Hospital in New York. Welcome, doctor.
	Shot of Howard interviewing Dr. John De Csepel.	Dr. John De Csepel Thanks, Howard.
		Howard Steinberg Let's start with a definition of gastroparesis for the layperson.

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	Lower Third: **John De Csepel, MD** **St. Vincent's Medical Center** **Computer animation of GI tract.** **Upper Third:** **Courtesy of www.cartoonMD.com** **Lower Third:** **Gastroparesis occurs when nerves to the stomach are damaged or stop working.** **Gastroparesis symptoms include early satiety, nausea, vomiting, and erratic blood sugar.**	Dr. John De Csepel. To understand gastroparesis, I think you have to understand how the GI tract normally functions. So when you eat food, it goes down your esophagus and into a sack which is the stomach where the food is churned up and then released a bit at a time into the intestines where it's absorbed. Now, patients with gastroparesis have a weakness of the stomach and when the stomach is weak, it doesn't empty as readily into the intestines. So instead of the stomach staying perpetually relatively empty, it fills up quickly and stays filled even to the point of over- overflowing. Then the symptoms you're going to get are bloating, abdominal pain, and that might lead to heartburn, even nausea and vomiting.
		Howard Steinberg So how does this make control of diabetes more difficult?
	Upper Third: **Up to 25% of people with diabetes have gastroparesis.**	Dr. John De Csepel First off, when you have damage to the nerves that run to the stomach or that run within the stomach, the stomach doesn't contract well and doesn't empty well. And so you don't know, as a diabetic, how much of the food you're eating is going to get into the intestines and be absorbed or how much is just going to sit in the stomach, so it's hard to know how much insulin to take. And so the blood sugars can be very high or they can be very low if perhaps you've taken too much insulin and little food is getting into the intestines because it's all held up in the stomach. Then you could see how that could you could really run into trouble that way.
		Howard Steinberg So how do you diagnose? Besides the overt symptoms that you mentioned, how does a doctor diagnose gastroparesis?
		Dr. John De Csepel The internist or perhaps the gastroenterologist first seeing the patient might consider sending the patient for something called a gastric emptying

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	Various shots of patient undergoing gastric emptying scan.	scan. This shows how readily the stomach can empty. So what'll happen is the patient will come to the hospital or to the center where this test is taken and they'll eat a meal that has a special radiotracer label in it. And they can actually visualize how quickly the food empties from the stomach into the intestines. And if it's held up in the stomach, then you know you have a diagnosis of gastroparesis.
		Howard Steinberg So what can we do? What are the treatments that can be offered?
	Lower Third: **Gastroparesis patients may need liquid supplements for nutrition & hydration.**	Dr. John De Csepel Well, first off, dietary changes are- should be implemented right away. So patients who have been diagnosed with gastroparesis by a gastric or stomach-emptying scan then should go on to change their diet by eating a low-fat diet and a low-fiber diet. High-fiber, high-fat foods take longer to empty from the stomach so you want to do everything possible to help the stomach empty. They should eat multiple small meals. So instead of- during the course of the day. So instead of eating three normal-sized meals, they eat a smaller meal.
		Howard Steinberg What can be done to treat gastroparesis besides just dietary changes? I understand that you're pioneering some treatment called gastroelectrical stimulation?
	Lower Third: **Gastroparesis medications include: metoclopramide, erythromycin, and domperidone.** **Domperidone is effective, but not currently approved by the FDA.**	Dr. John De Csepel Well, yes. First off, what I would do is if the dietary changes don't work, then I would suggest medications. There's a couple of medications out there. One's called Reglan, also known as metoclopramide which is the most commonly used medication for this condition. Unfortunately, it doesn't help about 50 percent of people so if they fail the dietary changes and the medications, then they might ask their doctor about being referred to a surgeon who does gastric electrical stimulator implantation which is the type of surgery that I do.

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		Howard Steinberg And you have a sample of what that looks like with you?
	Shot of Dr. Csepel showing stimulator. **Various computer animation shots of implant procedure.** **Lower Third:** **About 4,000 gastric pacemakers are implanted annually.**	Dr. John De Csepel This is the stimulator here. The stimulator is about the size of a cardiac pacemaker. It is implanted in the abdominal wall. In a very thin patient, they might even see the stimulator bulging out just a little bit. And then two wires are attached to the stimulator, brought through the abdominal wall and plugged into the stomach where it delivers a very low-voltage electrical pulse every 5 seconds to the stomach and it helps the stomach to contract better.
	Lower Third: **www.dLife.com/gastro**	Howard Steinberg Thank you so much, Dr. De Csepel, for coming in and making our audience aware of a very important subject. Find out more about gastroparesis at dLife.com/gastro. Later in the show, we'll show you how a leading diabetologist tests for gastroparesis in his office. When dLife returns, our own Jim Turner with myths, misconceptions and big fat lies about diabetes.
	GFX Center **dLife** **For Your Diabetes Life!**	
	Lower Third: **Jim Turner** **Actor, Arliss** **Shot of Betty Brackenridge on stage with Jim Turner.** **Lower Third:** **Betty Brackendridge** **Author, *Diabetes Myths, Misconceptions and Big Fat Lies*.** **FACT OR MYTH?** **You are cured from diabetes…** **If you are able to go off your meds.**	Jim Turner Less than half of people with diabetes ever get diabetes education. No wonder so many diabetes myths are alive and well and they can be very misleading and some even downright dangerous. Well, here to demystify some common diabetes myths is author of Diabetes Myths and Misconceptions and Big Fat Lies, Betty Brackenridge. Number one, fact or myth? You are cured from diabetes if you are able to go off your meds.
	Shot of Jim Turner interviewing Betty Brackenridge.	Betty Brackenridge

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		Ooh, that's wrong. <laughs>.
		Jim Turner Really?
		Betty Brackenridge That's just plain old wrong.
		Jim Turner Oh. I can't just stop?
		Betty Brackenridge No, you can't just stop. There are times when people with diabetes do stop medicines. Someone newly diagnosed with type 1 may go into a honeymoon in the first year after diagnosis for a while. Most people do.
		Jim Turner I did. I was very excited about it.
		Betty Brackenridge <laughs>. I'll bet. Disappointing when blood sugars start going back up again.
		Jim Turner Yes.
		Betty Brackenridge In type 2, that can happen as well. People change how they're treating their diabetes. They lose a little weight, they become more active, and what that does is help their body get by better on the amount of insulin they're still making. But the thing is, diabetes is a chronic disease. It doesn't go away and eventually, you're doing to require that medicine again. It wasn't cured; it was just well treated in the case of type 2 diabetes with something other than medicine.
	FACT OR MYTH? **People with type 2 diabetes…** **Don't have to take insulin.**	Jim Turner All right, number two; people with type 2 don't have to take insulin.

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		Betty Brackenridge Yeah, that's a really common myth. You know, they used to call it non-insulin-dependent diabetes and that's why <laughs> they changed the name to type 2 because it got people all confused.
	FACT OR MYTH? Kids only get type 1 diabetes.	Jim Turner Number three; kids only get type 1 diabetes.
		Betty Brackenridge Boy, you know, I've been at this so long that I actually remember when that was almost true. <laughs>.
		Jim Turner Because when I got it, it was called juvenile onset.
	Lower Third: **177,000 people under age 20 have type 2 diabetes.**	Betty Brackenridge Juvenile diabetes, you know, old terminology like, you know, now type 1. It used to be that only about 1 to 2 percent of kids diagnosed with diabetes had type 2 diabetes. Now the number's like 45 percent of kids newly diagnosed with diabetes that have type 2. That number varies on the population, so if you're in an area where you have a lot of people of color where a lot of adults get type 2 diabetes, African Americans, Latinos, Native Americans, then there's going to be a higher incidence in the youngsters as well.
		Jim Turner What about adults getting type 1?
	Lower Third: **Type 1 diabetes is typically diagnosed in childhood but can develop at any age.**	Betty Brackenridge Oh, sure. That happens too. I think the oldest person that I've cared for newly diagnosed with type 1 was 67.
	FACT OR MYTH? **People with diabetes… Should only eat sugar-free foods.**	Jim Turner People with diabetes should only eat sugar-free foods.

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		Betty Brackenridge Boo. No. There's carbohydrates in many sugar-free foods as well. One of my favorite examples is chocolate bars because, you know, everybody likes chocolate. Now these folks know me well. <laughs>. They say a serving is a bar. They know I'm not going to share, right? The people that are <laughs> selling the sugar-free chocolate, they have a much better opinion of my nature and they think that I'm going to break it in half and give the other half to somebody else. But if I were actually that kind of person and I only ate half of this one versus the whole one of the real chocolate bar, there's actually 1 gram of carbohydrate difference between the two. And you'll find that's the case with many, many sugar-free foods. There's very little difference in total carbohydrate between the regular food that the sugar-free food seeks to replace. They're different carbs, but the only way you can really tell what effect they have on your blood sugar is you don't guess, you test.
		Jim Turner Yes. So it's all about the carbs and it's not about the sugar. Sugar-free just means…
		Betty Brackenridge Sugar-free is a labeling term. And there are folks that will say, "Well, we only call- you know, those are carbs. They don't raise blood sugar." But many of them do. The only way you can tell is with testing.
	FACT OR MYTH? **No matter what I do… I will get complications.**	Jim Turner Number 5; no matter what I do, I will get complications.
		Betty Brackenridge Complications are far from inevitable and we've got great research that shows us that. For the person living with diabetes, for you and me, what we do is take into our hands the things that protect us and

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		that's great blood sugar control and that's great control of blood pressure and that's watching our lipids and getting the test done, getting into the doctor every year. With those things in hand, no one can guarantee you that you're not going to get complications, but your odds are very, very small if you can take those things in your hand and you monitor what's going on.
	Lower Third: **More from *Diabetes Myths, Misconceptions & Big Fat Lies* at dLife.com/myths.**	Jim Turner Thank you very much for sharing the truth about diabetes today.
		Betty Brackenridge Thanks.
	GFX Center **dLife** **For Your Diabetes Life!** **Various shots of upcoming segment.**	**VO Jim Turner** **When dLife returns, to tell or not to tell; diabetes and disclosure.**
	GFX Center **dLife** **For Your Diabetes Life!**	
	Lower Third: **Nicole Johnson Baker** **GFX Center** **dLife** **For Your Diabetes Life!**	Nicole Johnson Baker It can be a complicated and stressful decision whether or not to tell the people around you that you have diabetes. It can also say a lot about how you relate to your own diabetes. We asked some people how they handle the disclosure issue.
	Do you tell or not?	
	Various shots of people talking about disclosure.	Woman in Pink Shirt Initially, it's a little embarrassing to have a disease that you have to disclose, but it's also my responsibility to do that, so I do.
		Man with Moustache I don't really tell people unless maybe something comes across.

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		Man in Blue Shirt I was concerned about being perceived as being different, having a handicap, and I didn't want that to happen.
		Man with Glasses I'm in the fishing industry; I work on a fishing boat. They can accept it or don't accept it. That's up to them.
		Man in Blue Shirt I was sitting at my desk and all of a sudden, I had an extremely low blood sugar and I was bouncing- literally bouncing off the walls. And nobody knew what to do. So they ended up having to call the paramedics.
		Woman with Dark Hair I needed to step off that field and I did alert the referee, as you know, that, "Yes, I am a diabetic, I'm a type 1. I may need to step off. It's because I have a, you know, a medical condition." And I had a teammate actually come up and start to get to my face.
		Man in Blue Shirt I was embarrassed. That was my biggest thing is I was embarrassed.
		Woman with Dark Hair "And the whole team seems to know, but I guess you didn't know. But if I need to step off, I need to step off."
		Man with Beard I guess I'd like people who think they know about diabetes, but really don't not to offer advice to diabetics.
		Man in Black Shirt Yeah, sometime I don't like when people are on me about telling me how to eat.
		Man with Beard A health fanatic friend of mine, when she learned

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		that I was injecting insulin advised me not to take insulin because I was injecting a foreign substance into my body.
		Man in Black Shirt Oh, it's just- it's hectic sometimes. <laughs>. It's just really, really hectic, man. It's really hectic, but I'm living with it though.
	Side of Screen: **Are you public when you test or inject?**	Woman in Pink Shirt And I can remember when I first had to start injecting insulin and I was so flustered about that and going to the restroom in a restaurant and having to figure that out. And it was difficult for me.
		Man with Moustache I don't do anything in public. I don't want to give anybody a bad feeling because if they don't know what I'm doing, then they might automatically assume that it's drug-related or you know, you never want somebody to get the wrong idea, so I just always do it in privacy.
	Do you wear an ID bracelet? **Various shots of people's ID bracelets.**	Man in Blue Shirt I've had one with me for 45 years. That's when I first found out that I was a diabetic and I was 14 years old.
		Man in Black Shirt I got the ID bracelet in case I get very, very ill and I was alone by myself. Someone could come and help me.
		Man with Beard I got it a couple of years ago when I started using insulin. I just feel a lot more secure having it.
		Young Guy in White Shirt I grew up wearing Medic ID bracelets and they say Medic Alert and they have a snake. And I got very used to wearing that when I was little, but kids would come up to me and say, "What's wrong with you? Why do you wear that?" Kids from my class, kids from other classes, and I'd constantly be explaining because I was wearing this thing, "I have diabetes and I need to do this and I need to do that

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		and I'm not going to die and I can't eat sugar," and all these things. And, "Yes, I have to take shots and no, it doesn't hurt." It opened up this dialogue, a dialogue that I don't necessarily want to have all the time.
		Man with Glasses I really don't think I need a bracelet.
		Woman with Red Hair Personally, every one that I've seen is ugly.
		Woman with Dark Hair I wear one that is fairly unattractive. <laughs>.
		Young Guy in White Shirt Every time someone recognized that piece of jewelry, it meant that I had a lot of explaining to do. And I don't necessarily always want to be explaining.
		Woman with Dark Hair And then this other one is actually a Tiffany's bracelet and it's a little bit more attractive when I go to the bars or clubs and it says diabetic on one side and then my initials on the other.
		Man with Glasses I don't feel ashamed of it; I don't want to hide it. I've done things in my life that I'm ashamed of and I want to hide. <laughs>. I'm not perfect. But this is my health. I have to take care of this and I don't care who knows.
	GFX Center **dLife** **For Your Diabetes Life!**	
	Lower Third: **Take the dLife Weekly Poll at www.dLife.com**	Nicole Johnson Baker So what about you? Who do you tell about your diabetes? Visit us at dLife.com and take our homepage poll. Up next, Dr. Richard Bernstein's test for gastroparesis that your own doctor may not know about.
	GFX Center **dLife**	Nicole Johnson Baker As we discussed earlier, many doctors fail to

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	For Your Diabetes Life! **Lower Third:** **Nicole Johnson Baker**	diagnose gastroparesis in their patients with diabetes. dLife asked Dr. Richard Bernstein to show us how he screens for this challenging digestive complication.
	Lower Third **Richard Bernstein** **Diabetologist and Author** ***Diabetes Solution & Diabetes Diet*** **Various shots of Dr. Bernstein testing patient.**	Dr. Richard Bernstein Rita, I'm hooking you up to a standard electrocardiograph machine. It's a very easy test, as you'll see. I'm going to have you take deep inspirations and deep expirations. Open way in. Gastroparesis most commonly occurs as a result of diabetic neuropathy, usually neuropathy of the vagus nerve. The vagus nerve controls heart rate also. We're gonna be measuring the activity of the vagus nerve by seeing how your heart rate slows down when you exhale. It's an automatic reflex. Whenever you exhale, the heart slows. Relax, breathe normally. I can tell by looking at it that you have about 18, 20 percent variation in heart rate between inhaling and exhaling. That would tell me that you have significant gastroparesis, but not severe gastroparesis. The classic early sign of gastroparesis is frequent low blood sugars after dinner and high blood sugars the next morning.
		Patient So it can be affecting your blood sugar, but you don't even know it.
	Lower Third: **The R-R interval study is not universally accepted for diagnosing gastroparesis.**	Dr. Richard Bernstein That's right, unless you're measuring it.
	GFX Center **dLife** **For Your Diabetes Life!** **Lower Third:** **Hear more from today's guests on dLife Backstage Podcasts at www.dLife.com.** **dLife TV on CNBC next Sunday 7 p.m. ET/4 p.m. PT** **To order a copy of any dLife TV**	Nicole Johnson Baker Thanks, Dr. Bernstein. That's all the time we have. We'll be back again next week with another edition of dLifeTV to inform, inspire and connect for a healthy diabetes life.

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	episode, visit www.dLife.com/orderdlifetv.	
	GFX Center **dLifeTV is produced by LifeMed Media and does not represent the views or opinions of CNBC, Inc.**	
	Credits roll. **Shot of Nicole Johnson Baker at right side of screen.**	Nicole Johnson Baker Remember, we are not role models. We are people living with diabetes just like you. What we do and how we manage may work for us, but everyone is different and you have to work with your diabetes caretaker to find out what is best for you. Remember, it's your dLife and there is no substitute for getting control of it.
	GFX Center **Life Med media**	