

dLife Graphics

VO 1

**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 live a healthy diabetes life.**

Shots of doctor in office

Nicole Johnson Baker Voice Over

Today on dLife a doctor who is using cutting edge technology to improve patient care. Also setting goals. Is your doctor pushing you too hard? Not hard enough? A discussion about the right goals for diabetes control. Plus more real stories about real people living with diabetes

Shots of patient using diabetes equipment

Host in studio

Nicole Johnson Baker

Welcome to dLife, your source for a healthy diabetes life. I'm Nicole Johnson Baker. There have been so many breakthroughs in the treatment of diabetes over the last few years that it's surprising to see how few doctors are up-to-date on what's available. One of the leaders in this field is Dr. Irl Hirsch, the Medical Director of the University of Washington Diabetes Care Center. He himself has diabetes and knows first hand what a difference cutting edge technology can make.

dLife graphic

Shots of Irl Hirsch in office

Irl Hirsch

**Sign: University of Washington
Medical Center, UW Medicine
Shots of Irl Hirsch working
Sign: UWMC Diabetes Care
Center 101
Interview with Irl Hirsch
Lower Third: Irl Hirsch, MD,
University of Washington**

My name is Irl Hirsch. I am a professor of Medicine here at the University of Washington in Seattle. I've been Medical Director of the Diabetes Clinic here for 16 years. I've had type 1 diabetes since I was 6, so I understand a lot of what these patients are thinking and going through.

Interview with Stephanie Westgor Stephanie Westgor:

Shots of Stephanie at doctors office
Lower Third:
Software is available to track blood glucose trends from meters.
Shot of Dr. Hirsch in office

My name is Stephanie Westgor. I was diagnosed with type 1 diabetes when I was 11 years old. A typical visit with Dr. Hirsch is to come in, get weighed, blood pressure and then they'll take my blood sugar meter and they'll go and download it and they usually give the results to Dr. Hirsch. And then he comes in and we sit and talk about everything.

Appointment between Dr. Hirsch and Stephanie Westgor

Irl Hirsch: How are you Stephanie?

Stephanie Westgor: I'm good. How are you?

Interview with Irl Hirsch

Irl Hirsch

My philosophy and the clinic's philosophy is the entire life affects the diabetes.

Interview with Stephanie Westgor

Stephanie Westgor

Lower Third:
Stephanie Westgor, Type 1 Diabetes

He knows what's going on in my life and where I'm working usually and if I'm looking for a new job. We share our- our lives

Shot of Stephanie's appointment with Dr. Hirsch

Irl Hirsch: Tell me what is going on with your love life. You haven't told me anything.

Stephanie Westgor: Yeah, my love life is my dog.

Irl Hirsch: Your dog?

Stephanie Westgor: Yes, that's it. Uhm.. I'm not dating anybody...

Back to interview with Stephanie

Stephanie Westgor

And if I'm really upset, stress is a huge factor that plays with your blood sugars. You know, he needs to know that if something's going on.

Interview with Dr. Hirsch

Irl Hirsch

What's going on with her job, what's going on with school, what's going on with their spouse. I mean I wanna know that stuff. It doesn't sound important but it's actually very important because it does affect the diabetes.

Dr. Hirsch walking down hallway

Stephanie Westgor

Interview with Stephanie Westgor

The first time Dr. Hirsch approached me about new technology I was taking roughly six shots a day. And he approached me about going on an insulin pump.

Stephanie walking through Drs. Office

Appointment between Dr. Hirsch and Stephanie Westgor

Irl Hirsch You've been on your pump how long? I don't remember.

Stephanie Westgor: Uh.. about five years now.

Back to interview with Dr. Hirsch

Irl Hirsch

**Lower Third:
Pumps replace injections by regularly administering small amounts of insulin.**

Like most people when they get good training and they're motivated, they do very well on an insulin pump.

Stephanie with insulin pump

Stephanie Westgor

It's made a huge difference in the way that I'm controlling my blood sugars.

Appointment between Dr. Hirsch and Stephanie Westgor

Irl Hirsch: Could you imagine going back to shots now?

Stephanie Westgor: No. No.

Shots of Stephanie's appointment with Dr. Hirsch

Voice over of Stephanie Westgor

It's making such a difference in how I feel just in my overall health.

Interview with Dr. Hirsch

Irl Hirsch

Shot of Stephanie doing finger stick testing

If you have a patient like Stephanie who's willing to do the finger stick glucose testing, who understands how to match insulin with food, they do great with this technology.

Appointment between Stephanie and Dr. Hirsch

Dr. Hirsch: The sensor's working fine with your leg?

Stephanie Westgor: Yeah.

Irl Hirsch: And where- where else do you wear it?

Stephanie Westgor: Uhm.. in the back.

Interview with Stephanie Westgor

Stephanie Westgor

**Lower Third:
Continuous glucose monitoring can be used to manage types 1 and 2.**

Along with the insulin pump they started developing technology that I can actually upload all my blood sugars. It'll register when I've had insulin, how much insulin into the computer and then Dr. Hirsch can look at those charts whenever he wants to pull that information out.

**Shots of Stephanie using computer Charts
Interview with Stephanie**

Appointment with Stephanie and Dr. Hirsch in office

Irl Hirsch: I just took a quick look at your download. Let me show you what I'm seeing here. This is going back over a week and this actually- you had a couple of nights where you spiked and I'll show you those nights. But for the most part this is absolutely amazing. The higher the highs, the lower the lows in any given patient, the greater the risk we believe of complications from diabetes. You were low here at midnight, I don't know if you were asleep yet.

Stephanie Westgor: Right.

Irl Hirsch: And you obviously ate, you got an alarm.

Stephanie Westgor: Right

Irl Hirsch: You went back to sleep.

Stephanie Westgor: Right.

Irl Hirsch: And your blood sugar started going up.

Interview with Stephanie Westgor Stephanie Westgor

Whatever is uploaded off my insulin pump he's gonna see it.

Appointment between Stephanie and Dr. Hirsch Irl Hirsch: I don't know if you remember this, this was April 7. Do you remember what you ate here?

Interview with Stephanie Westgor Stephanie Westgor

And I have to be honest with him and tell him okay, yeah, I- I had a bowl of ice cream last night.

Charts
Back to appointment with Stephanie and Dr. Hirsch

Voice Over of Irl Hirsch

We would show her where the problems were, we would show her where she was doing well.

Irl Hirsch

You have a great average but I'm concerned that you may be having too many lows in here.

Stephanie Westgor

Interview with Stephanie Westgor From looking at the charts and getting the feedback from Dr. Hirsch I start making changes in how I'm controlling what I'm eating, the amount of insulin, when I'm taking the insulin.

Charts
Back to interview with Stephanie

Appointment between Stephanie and Dr. Hirsch Irl Hirsch: Why when you wear the sensor do you have better blood sugars?

Stephanie Westgor: 'Cause I pay attention to it more.

Irl Hirsch: That's right.

Stephanie Westgor: The days that I don't wear the sensor I feel lost.

Irl Hirsch: I think the sensor has taught you how to take better care of your diabetes.

Stephanie Westgor: Yeah.

Irl Hirsch: Do you agree with that?

Stephanie Westgor: To maintain it absolutely -- absolutely.

Irl Hirsch: Your blood pressure was good, your- your cholesterol is good, I mean everything- everything else looks great.

Stephanie Westgor: That's great, good news.

Interview with Stephanie

Stephanie Westgor

I am so blessed and so lucky to have him as my doctor. I consider him my friend.

Consultation with Dr. and Stephanie continues

Irl Hirsch: Go celebrate with a glass of wine tonight.

Interview with Dr. Irl Hirsh

Irl Hirsch

Stephanie with pump Charts

She'll take the technology as far as it will let her. She did that with the pump and now she's doing that with the continuous sensor.

Interview with Stephanie Westgor

Stephanie Westgor

Shot of Stephanie's appointment with Dr. Hirsch
Interview with Stephanie Westgor

I know that I have better tools, I have better understanding, I've got a wealth of knowledge in Dr. Hirsch and I can go to him anytime that I want.

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Back to show in studio

Nicole Johnson Baker

Lower Third:
www.dLife.com/techupdate

Thank you Dr. Hirsch. For more on new diabetes technologies, visit dLife.com/techupdate. Different doctors have different opinions. We talk to the experts when dLife returns.

dLife graphic

(commercial break)

Interview in studio

Howard Steinberg

Lower Third:
Howard Steinberg, Creator, dLife

We turn now to a subject that is really interesting to me personally: a debate within the diabetes community over what really is good control? Is it simply about the goals doctors set for their patients? Trying for an A1c of 5 can be discouraging, but an A1c of over 7 may be dangerous. Our guests today have different opinions and approaches to diabetes care. Dr. Howard Wolpert is a senior physician at the Joslin Clinic in Boston; Dr. Richard Bernstein is a diabetologist from Westchester County, New York and author of Diabetes Solution. Gentlemen, welcome to dLife. Let's start by talking about A1c goals. In your opinion what is a good A1c goal? Let's start with you Dr. Bernstein.

Lower Third:
The A1c test is a measure of long-term blood glucose control

Shot of Howard Wolpert

Shot of Richard Bernstein
Shot of Diabetes Solution book
Back to interview in studio

Richard Bernstein

Lower Third:
Richard Bernstein, MD
Diabetologist and Author,
Diabetes Solution, The Diabetes
Diet

Diabetics are entitled to the same blood sugars and the same A1c's as non-diabetics. Non-diabetics, whom I have tested run between 4.2 and 4.6, so I think that's a reasonable range for diabetics and it's reasonably easy to obtain.

Howard Steinberg

Reasonable? Dr. Wolpert, realistic? What do you think?

Interview in studio continues

Howard Wolpert

**Lower Third:
Howard Wolpert, MD
Director, Insulin Pump Program
Joslin Diabetes Center**

**Lower Third:
An A1c of 7% is equivalent to a
three-month glucose average of
170 mg/dl.**

Well that's obviously the ideal in the sense of reducing risk for long term complications, but I think when one gets down to practicalities for most people lows are impossibly difficult goals to measure up to. I mean the American Diabetes Association has come out with a goal of less than 7% for hemoglobin A1c but obviously one strives for whatever a patient can accomplish without them running into problems with severe hypoglycemia.

Howard Steinberg

**Lower Third:
Hypoglycemia occurs when one's
blood glucose is lower than
normal, usually less than 70
mg/dl.**

So, Dr. Bernstein, is this realistically achievable by patients with diabetes? What do they have to do to achieve goals that you set?

Interview in studio continues

Richard Bernstein

It's very easy and it's very commonplace to put the onus on the patient, that some patients are not up to this. It's the physicians who are not up to this. They don't have the time and that's what's so unfortunate about the system and it really should be farmed out to paramedical people and to working with patients in groups. Doctors can't make money doing this.

Howard Steinberg

Dr. Wolpert, that's an interesting statement. Is it about the system and the doctor or is it about the patient? Why don't you weigh in on that.

Howard Wolpert

Well, without question I think Dr. Bernstein is- is correct on that score. But I think philosophically there- there is a difference in our approaches. I view myself as a diabetes clinician primarily as a

coach. I mean there to actually engage the patient and get them focused on improving their diabetes control as best they can. And I think one of the key issues is not to actually overload the patients with over idealized goals, like Dr. Bernstein so describes, because for many people that just becomes a recipe for...

Howard Steinberg

Self defeat.

Howard Wolpert

Exactly.

Howard Steinberg

How do we manage patients to goals without making them feel like they're failing?

Interview in studio continues

Howard Wolpert

**Lower Third:
The A1c measures excess glucose
that sticks to red blood cells.**

I think the one thing one doesn't want to do is actually give a value judgment to these numbers. It's not about a number being bad because I think for many patients the A1c is not just simply a measure objectively of their glucose control but it's a measure of their confidence and their self-worth and I think one needs to be very sensitive to how one actually describes the goals or the level that they're measuring up to. The challenge really is in terms of giving people a program that can- they can kind of stick with. So when it comes to meal plans, for example, or eating behaviors I think it's a matter of actually giving people goals and slowly kind of advancing them because for most people it's a matter of actually changing their habits so that they become routine.

Howard Steinberg

So Doctor, what do you think about that? You

might be, you know, putting these kind of challenges upon your patients and beating them up might defeat them. And have you lost patients who have felt defeated and just couldn't do it?

Richard Bernstein

**Lower Third:
Carbohydrates directly impact
blood glucose levels.**

Very rarely have we lost patients. Getting a person to switch to a low carbohydrate diet, which is essential, there's no way to control blood sugars on a high carbo diet. You have to do it fast, all at once, otherwise it takes forever. Those where you change them immediately they lose the cravings and you forge ahead and they see the results. When patients see the pay off they stick with it.

Interview in studio continues

Howard Steinberg

Dr. Wolpert, can we replicate Dr. Bernstein's approach across the diabetes population?

Howard Wolpert

Well, it really depends on the patient's level of motivation. He's describing people, who because they have complications for example, feel very activated, so to speak to- to get on top of and in control with their diabetes. That doesn't necessarily apply to everyone and you know, food is one of the pleasures of life, people want to indulge occasionally and I think one has to sort of set up a program that kind of allows people a certain amount of flexibility because, you know, one of the challenges here is that if it comes down to a situation where the demands of diabetes sort of control one's life and one's routine, for many people that becomes too much of a price to pay.

Howard Steinberg

Well again, gentlemen, thank you so much for coming. This is an extremely important subject. We can talk about it more and more. We'll be right

back with more from Dr. Wolpert and Dr. Bernstein

dLife graphics

(commercial break)

Back to interview in studio

Howard Steinberg

**Lower Third:
Howard Steinberg, Creator, dLife**

I'm here with Dr. Howard Wolpert and Dr. Richard Bernstein. So, gentlemen, we spend a lot of time during the day managing our blood sugars. We're awake. But at night while we're sleeping we can't make the corrections and test our blood sugar as we would during the day. How can we manage this? Dr. Bernstein.

**Lower Third:
Richard Bernstein, MD
Diabetologist and Author,
Diabetes Solution, The Diabetes
Diet**

Richard Bernstein

The key to it is small doses of insulin given in a physiologic fashion. For example, if you give a large dose of a long acting insulin at bedtime you're asking for trouble. It should be split into two smaller doses. Furthermore, if you're expecting to cover your meals with a long acting insulin you're asking for trouble, at least if you're dealing with type 1 diabetics -- should have fast acting before meals, small amount of long acting at bedtime and on arising in the morning.

Howard Steinberg

Let me understand. Are you suggesting you wake up and take a second does of insulin?

Richard Bernstein

No, you get a dose of insulin at bedtime; you get a does of insulin when you wake up in the morning. It's long acting and the amounts are small.

Howard Steinberg

Well now, what about type 2's who aren't on

insulin?

Interview continues in studio

Richard Bernstein

Type 2's who are not on insulin we don't have to worry about the hypoglycemia unless they're taking oral hypoglycemic agents.

Howard Steinberg

Dr. Wolpert, what about these terms I've heard and never really understood, dawn phenomenon and Somogyi Effect, where you have high blood sugars during the night or in the morning that are caused by something else?

Howard Wolpert

**Lower Third:
Howard Wolpert, MD
Director, Insulin Pump Program
Joslin Diabetes Center**

**Lower Third:
Biochemist Michael Somogy
theorized that hypoglycemia
causes a hormonal response that
raises blood sugar**

**Lower Third
This occurrence was dubbed the
Somogy Effect or "rebound".**

Well, there are a number of different hormonal responses that can develop in response to hypoglycemia, which would be the case of the Somogyi phenomenon which is a rebound increase in the glucoses. So what happens when the glucose level goes down low the body will produce so-called counteractory hormones like adrenaline and these will trigger the liver to produce glucose and the end result is that a person may arise or this can also occur during the day with a high blood sugar. The dawn phenomenon relates to growth hormone spikes which occur over night which will trigger the liver to produce glucose and this particularly manifests itself during the dawn period when people are getting up. I think the key issue around this though is that the individual responses physiologically will vary quite a lot, so for some people you'll see a very pronounced dawn phenomenon and in other people, there's no dawn phenomenon at all. And the same thing applies with rebound.

Howard Steinberg

So what can we do about this, these kind of

unpredictable or hormonal causes for blood sugar variation?

Howard Wolpert

**Lower Third:
Overnight lows are more common
in people taking insulin**

Well, for the dawn phenomenon, that comes down to actually individualizing the insulin replacement approach. So for someone with type 1 diabetes the option there may be an insulin pump where one can vary the basal insulin replacement, increase it during the dawn period. There are also situations where one can use longer acting intermediate insulin to try and control that.

Interview continues in studio

Howard Steinberg

That sound right to you Dr. Bernstein?

Richard Bernstein

Well, the last part. The Somogyi Effect, if you look through his papers there's never any hard evidence of an automatic response. I have seen no evidence amongst my patients of any kind of rebound from low blood sugars except from over eating.

Howard Steinberg

So it's all about the food you eat.

Richard Bernstein

Right. Now, the dawn phenomenon is for real. If I get up in the morning I'll typically have a blood sugar say of 85. By breakfast time, an hour later, I'll be up to 130. And this applies to virtually all of my type 1 patients and even to some type 2 patients.

Howard Steinberg

So- by the way, we should point out that you yourself have type 1 diabetes, right Dr. Bernstein?

Richard Bernstein

That's correct.

Howard Steinberg

So the dawn phenomenon is certainly something you both agree on and that needs to be paid attention to and worked with your doctor on how to- how to manage that. Dr. Wolpert, I've heard this expression bed dead or dead bed. Can you shed a little light on this?

Howard Wolpert

**Lower Third:
"Dead-in-Bed Syndrome" occurs
in less than 5% of type 1's, and
may be caused by severe
hypoglycemia.**

There has been a description in the literature of cases and situations where people with type 1 diabetes have been found dead overnight. And it's thought to be related to hypoglycemia, with that triggering some arrhythmia or irregularity of the heartbeat being the root case there.

Howard Steinberg

And that happens in a very small percentage of patients so it shouldn't be striking fear into the diabetes population.

Howard Wolpert

Yes, it's a very small subset of people. But I think it's a shadow which hangs over a lot of people and which holds them back from trying to strive to tighten up in their glucose control.

Interview in studio continues

Howard Steinberg

Is there a protocol for handling overnight low blood sugars?

Howard Wolpert

Well, insulin pump is certainly a way of actually minimizing risk for hypoglycemia overnight because with an insulin pump one has much more predictable insulin delivery. I think the promise of continuous glucose sensors will help many people in minimizing that problem as well.

Howard Steinberg

Well, there's no doubt there is great tools and more and more great tools to help manage the condition. Thanks to both of you for coming in. Obviously two different points of view, but very valuable information that our audience needs to hear for them to talk to their doctor about how to manage their diabetes. Struggling with your control? Visit us online at dLife.com/askanexpert to ask our team of experts your diabetes questions.

Lower Third:
www.dLife.com/askanexpert

DLife Graphic

Howard Steinberg Voice Over

Chef cooking in kitchen

Up next, dLife shows you how to make southern comfort food into healthy fair.

dLife Graphic

(commercial break)

Back to show host in studio

Nicole Johnson Baker

Lower Third:
Nicole Johnson Baker

So we turn now to the comfort foods so many of us loved as children. You don't have to give them up completely if you have diabetes, you just have to learn how to make them so they don't send your blood sugars through the roof. Chef Franklin Becker has some tips in the dLife kitchen. You can find his recipes on dLife.com and in Diabetic Cooking Magazine.

DLife graphic

Chef Becker in kitchen

Franklin Becker

Lower Third:

Chef Franklin Becker

Card: Southern Comfort Meal

Chef Becker in kitchen

Left Half:

Typical Fried Chicken

Carbs: 20g

Fiber 0g

Fat: 30g

Preparing chicken

Lower Third:

This recipe calls for crushed pecans. Good alternatives are crusted almonds or walnuts.

Pan frying chicken

Left Half:

Pan Fried Pecan Chicken

Calories: 316

Carbs: 4g

Fiber: 1g

Protein: 36g

Total Fat: 18g

Chef washing hands

Preparing cauliflower

Hi, I'm Chef Franklin Becker and welcome to the dLife kitchen. Today, we're preparing a wonderful southern comfort meal. Cooking southern food is a little difficult for those with diabetes. It's difficult because it's usually high in carbohydrates, high in fats, and really high in sodium. I'm gonna show you how we're gonna do it a little bit simpler and a little bit better. We're gonna prepare some fried chicken, we're gonna pecan crust that. We're gonna prepare some mashed cauliflower in place of those hefty mashed potatoes and we're gonna prepare a little spinach in place of the collard greens and bacon. So let's get started. We have a boneless skinless chicken breast and we're gonna coat it in some nuts that have been finely ground. What we're gonna do then is we're gonna dip it into some eggs and this is a little beaten egg white and one egg yolk and uhm.. just once again trying to keep down the calories. And from here we just take our chicken out and we dip it back into the nuts and I have a little bit more nuts over here which are a little bit more coarsely ground. So what we're gonna try and do is make sure that that chicken is evenly coated and we're gonna move over to the pan and fry it. So what we're gonna do is we're gonna take the pan and we're gonna add some safflower oil to it, roughly a tablespoon of oil. We're gonna take our chicken and we're gonna add it to the hot oil just like so. And we're on our way to some great southern fried chicken. So the next thing I'm gonna do is uh.. wash my hands 'cause one of the most important things in-between steps is to make sure that you have clean hands. We have this wonderful cauliflower right here. Now cauliflower's a great vegetable 'cause it's low in carbohydrates and what we're gonna do is we're actually just going to remove the flowerets and the easiest way to do that is to apply a little bit of pressure, okay, if you can, to the base of the cauliflower until you hear that pop. And then from

Processing cauliflower

Lower Third:

Cauliflower Mash

Calories: 82

Carbs: 12g

Fiber: 4g

Protein: 3g

Total Fat: 13g

Preparing spinach

Serving meal

Chef Becker in kitchen

Lower Third:

You can also find great recipes & food ideas in Diabetic Cooking Magazine

Shot of Diabetic Cooking Magazine

Shot of fried chicken meal on plate

Lower Third:

Visit dLife.com/recipebox for Chef Becker's recipe.

Shot of Chef Becker in kitchen

there you can break it off into flowerets and then you can steam them with a little bit of leeks and some garlic and then we're gonna move over and we're gonna process them and turn them into mashed potatoes. And all we're gonna do is just pulse that until we get to a mashed potato consistency. And I think we're just about there. And yes we are. In place of mashed potatoes I have this wonderful cauliflower mixture with a little bit of leeks and garlic, touch of butter, really delicious -- perfect. The next thing we're gonna do is just remove our chicken from the pan and just gonna place it on the plate, along with our mashed cauliflower. As my pan's hot I'm gonna add just a little bit of oil. To that pan we're gonna add a little bit of spinach and you hear that sizzle, that's what we're looking for and we're just looking to wilt it, we're not really looking not cook it all the way. So now you can enjoy guilt free southern cooking just like this fried chicken, a little cauliflower, some wilted spinach with garlic. You know, great tasting recipes like these and useful nutritional information are in every issue of Diabetic Cooking Magazine. The recipe is also available on dLife.com. I'm Chef Franklin Becker, thank you for joining me.

DLife graphic

Back to show host in studio

Nicole Johnson Baker

Thanks Chef Becker. When we come back, a dLife tip on preventing blood sugar spikes after meals.

DLife Graphic

Dr. Irl Hirsch

Irl Hirsch

**Lower Third:
Irl Hirsch, MD
University of Washington**

If you're having trouble with the spikes after you eat, wait 10 or 15 minutes between giving a shot and eating your meal.

DLife graphic

Back to show host in studio

Nicole Johnson Baker

**Lower Third:
Hear more from today's guests on
dLife Backstage Podcasts at
www.dLife.com.**

Thanks Dr. Hirsch. 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.

Closing credits

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.

Life Med Media graphic