

Success with
Dr. Richard K. Bernstein's
Very Low-Carb Regimen,
Ages 5 to 14

Lester Hightower



Children With Diabetes

Friends For Life Conference, Orlando 2019

Notes and Disclaimers

Managing type 1 diabetes is hard work, but great success is possible and I believe that it is worth the effort.

This presentation shares information about my family's nine-year journey with type 1 diabetes.

I am not a medical professional and this presentation is not intended to give personal medical advice.

I want to thank Jeff Hitchcock and the
Children With Diabetes organization
for the invitation to speak today.

I feel privileged to have been asked.

I pray that this talk is encouraging and inspiring,
and that it benefits you.

I have a lot of material to cover and so I must present quickly...

- I will skim and possibly skip some slide content.
- You may download and review the slides later.
- Most slides include links to reference materials.

Today's Topics

- Introduce me, my family, and Dr. Richard K. Bernstein.
- Summarize:
 - My son's nine years of outcomes with type 1 diabetes,
 - The disease state and its prevailing outcomes, and
 - Dr. Bernstein's regimen & how my family applies it day-to-day.
- Discuss why we choose to manage diabetes this way.
- Demonstrate that we are not alone.
- Share some recent research done on the regimen.
- Provide some meal details and food-related tips and tricks.
- Introduce the nonprofit Rivere Foundation.

A Little About Me



Professionally

- Information technology leader and software engineer.
- Hold a bachelor's degree in Economics from Florida State University.
- Career has mainly focused on technology related to freight transportation.

Personally

- Married for 22 years and am the father of two children.
- Student and proponent of low-carb eating and Dr. Richard K. Bernstein's diabetes management regimen.
- Founding board member of the nonprofit Rivere Foundation.

My Immediate Family, November of 2018



Andrew

Ellen

Gracie

My Type 1 Diabetes Connection is Andrew

His diagnosis came June 17, 2010, a few weeks after his 5th birthday.



Diagnosis Day

June 17, 2010 at 5 years old



Nov 17, 2018 at 13 years old

Birth



4 yo

5 yo

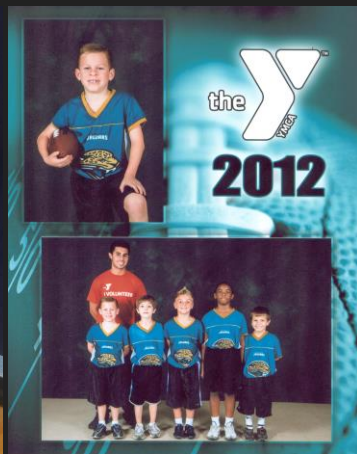


9 yo

10 yo



13 yo





Ellen and Andrew bear the brunt of day-to-day T1D management and they deserve most of the credit for the success that I will share today.



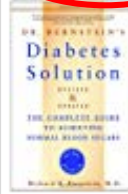
“The Best \$20 That I Have Ever Spent!”

9 days after
diagnosis

ORDER PLACED
June 26, 2010

TOTAL
\$56.39

SHIP TO
Lester Hightower



Dr. Bernstein's Diabetes Solution: The Complete Guide to Achieving Normal Blood Sugars
Richard K. Bernstein

Sold by: Amazon.com Services, Inc

\$19.79

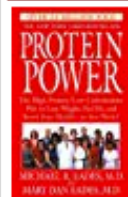


Blood Sugar 101: What They Don't Tell You About Diabetes

Jenny Ruhl

Sold by: Amazon.com Services, Inc

\$10.76

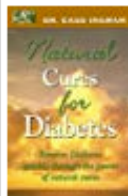


Protein Power: The High-Protein/Low-Carbohydrate Way to Lose Weight, Feel Fit, and Boost Your Health--in Just Weeks!

Michael R. Eades, Mary Dan Eades

Sold by: Amazon.com Services, Inc

\$10.88



Dr. Cass Ingram's Natural Cures For Diabetes: Reverse diabetes quickly through the power of natural cures

Cass Ingram

Sold by: Amazon.com Services, Inc

\$14.96

NATIONAL BESTSELLER

“Dr. Bernstein is a true pioneer in developing practical approaches to controlling a devastating disease that is growing at epidemic proportions in this country.”
—BARRY SEARS, P.D., AUTHOR OF *THE ZONE*

Dr. Bernstein's DIABETES SOLUTION

A COMPLETE GUIDE
TO ACHIEVING NORMAL
BLOOD SUGARS

4th EDITION
NEWLY REVISED
& UPDATED

Richard K. Bernstein, MD

4th & Current Edition,
Published in 2011
500+ pages

About Dr. Richard K. Bernstein



- Born in New York City in 1934.
- Developed type 1 diabetes in 1946, at age 12.
- By his 30s, he was suffering from many diabetes complications.
- In 1969, he obtained an Ames Reflectance Meter that gave a blood sugar reading in 1 minute. It weighed 3 lbs, cost \$650, and was only available to certified physicians and hospitals. His wife was a doctor and she ordered the instrument for him (at age 35).
- Within a year, he had refined his insulin and diet to the point that he had relatively normal blood sugar throughout the day. After years of chronic fatigue and complications, he felt healthy and energized.

About Dr. Richard K. Bernstein

- He wrote a paper describing his technique and tried to get it published, but no medical journals would accept it, in part because he was not a medical doctor. In 1977, he decided to give up his job to become a physician.
- At age 45, he entered the Albert Einstein College of Medicine, and in 1983 he opened his own medical practice near his home in New York.
- His first book on low-carb diabetes management was published in 1981.
- The first edition of *Dr. Bernstein's Diabetes Solution* was published in 1997.

At 85 years old, he continues to practice medicine in his NY clinic, to make *Diabetes University on YouTube* videos, and to conduct free monthly telecasts.

From 2016



“I’m not slowing down. I’m 82 years old and have been a type 1 diabetic since the age of 12. I have eaten a low carb diet and run normal, healthy non-diabetic blood sugars for decades. I still practice medicine and see new patients – working 40 hours a week or more on my feet. I perform high intensity interval training (HIIT) three times a week. I believe diabetics have the right to normal blood sugars. You can do it too – read my book ‘Diabetes Solution’”



Now at age 85, Dr. Bernstein has been achieving nearly normal blood sugars for 50 years.



Tony Robbins

If you want to be successful, find a person who has achieved the results you want and copy what they do and you'll achieve the same results.



Dr. Richard K. Bernstein

Every person with diabetes is entitled to the same blood sugars as a person without diabetes.

I have eaten a low-carb diet and had healthy, non-diabetic blood sugars for many decades. You can too.

In July of 2010, we chose to follow Dr. Bernstein and *Diabetes Solution* quickly became “the best \$20 that I have ever spent.”

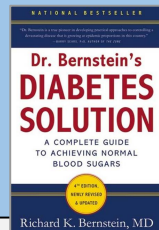
This Infographic of Our T1D Journey Shows Why



HbA1C Values Since Diagnosis

In June of 2010 and at age five, my son was diagnosed with type 1 diabetes. Early on, I devoured books on diabetes. Thankfully, one was *Dr. Bernstein's Diabetes Solution*.

Almost from the beginning, we followed Dr. Bernstein's regimen. We are now over nine years in and my son is doing great.



June 17, 2010 at 5 years old



Nov 17, 2018 at 13 years old



I Am Grateful

My deepest and most heartfelt emotion is gratitude.

I feel blessed beyond all measure that this story is my family's story.

I am excited to share more information with you, about our nine-year journey.

To Properly Tell My Family's Story,
I First Need to Summarize the
Type 1 Diabetes Disease State,
and the
Prevailing Outcomes

A Summary of Type 1 Diabetes

- Autoimmune disease that destroys the body's ability to make insulin, a vital hormone for blood sugar control.
- Severely elevated blood sugar is a hallmark of the disease.
- Synthetic insulin to lower blood sugar is imperative to sustain life.

- Healthy bodies tightly regulate blood sugar within a narrow range.
- Healthy bodies can rapidly place insulin directly into the portal vein.
- Subcutaneously injected or infused insulin is a poor substitute...

- Poor blood sugar control leads to dire health consequences, therefore, excellent control is highly desirable.
- Insulin is a powerful drug and the body blindly responds to its command.

Hemoglobin A1c to Measure Glycemic Control

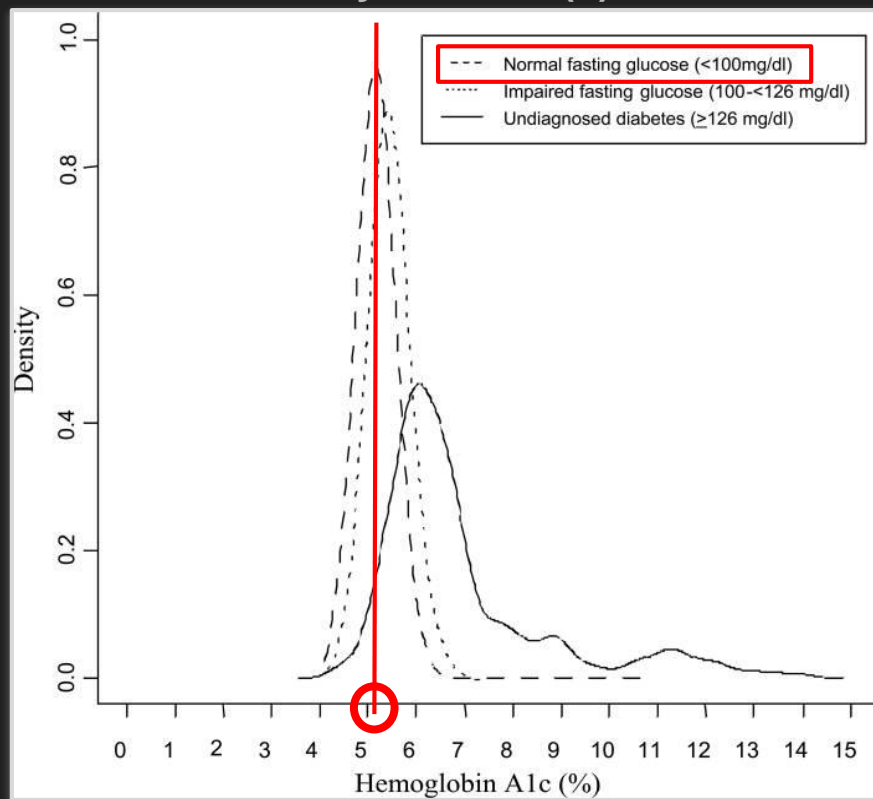
Hemoglobin A1c is a common blood test used to diagnose and then to gauge how well diabetes is managed through time.

A1c results reflect average blood sugar level for the past two to three months. Specifically, the A1c test measures what percentage of hemoglobin — a protein in red blood cells that carries oxygen — is coated with sugar (glycated).

Higher A1c levels are indicative of worse blood sugar control and an increased risk of developing diabetes complications.

Non-Diabetic A1c Levels are About 5%

ADA's *Diabetes Care*, May 2009; 32(5): 828-833. <https://dx.doi.org/10.2337%2Fdc08-1699>



The peak of the cohort with normal fasting glucose is highlighted in red.

That A1c is just a smidge over 5%.

5% equals 31.1 mmol/mol, the other global units of measure standard. <https://www.diabetes.co.uk/hba1c-units-converter.html>

Copy/Pasted From the ADA, Why A1c Matters...

High glucose levels cause complications in people with diabetes. Keeping glucose levels as low as possible prevents or slows some complications.

For the **Diabetes Control and Complications Trial (DCCT)** ... Half continued standard treatment while the other half followed an intensive-control program. Those on intensive control kept their blood glucose levels lower than those on standard treatment, but the average level was still above normal [**A1c ~7% vs ~9%**].

Findings for intensive-control compared with standard-treatment:

- Diabetic eye disease started in only one-quarter as many people.
- Kidney disease started in only half as many people.
- Nerve disease started in only one-third as many people.
- Far fewer people with early forms of these complications got worse.

References:

- <http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/tight-diabetes-control.html>
- http://care.diabetesjournals.org/content/26/suppl_1/s25
- <https://diatribe.org/issues/17/what-were-reading>

State of Prevailing T1D Outcomes (USA)

February 2019, Diabetes Technology & Therapeutics



Diabetes Technology & Therapeutics, Vol. 21, No. 2 | Original Articles

Free Access

State of Type 1 Diabetes Management and Outcomes from the T1D Exchange in 2016–2018

Abstract

Objective: To provide a snapshot of the profile of adults and youth with type 1 diabetes (T1D) in the United States and assessment of longitudinal changes in T1D management and clinical outcomes in the T1D Exchange registry.

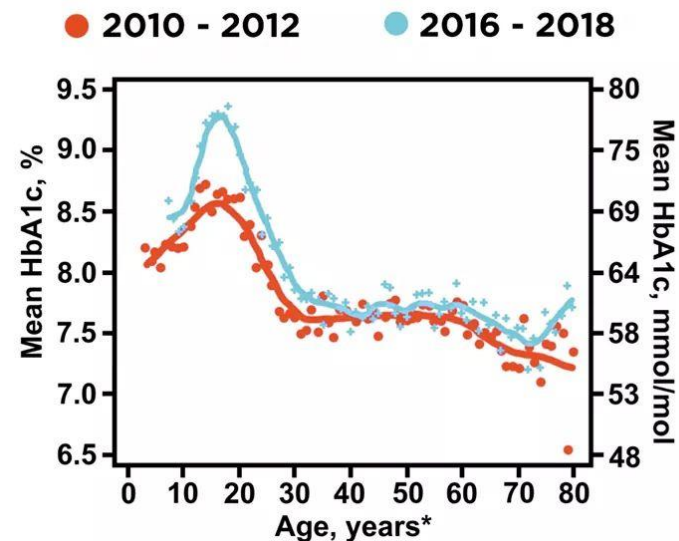
Research Design and Methods: Data on diabetes management and outcomes from 22,697 registry participants (age 1–93 years) were collected between 2016 and 2018 and compared with data collected in 2010–2012 for 25,529 registry participants.

Methods

The T1D Exchange clinic registry data collection was performed by 81 U.S.-based pediatric and adult endocrinology practices in 35 states. ... includes data from 22,697 participants collected between January 1, 2016, and March 31, 2018 ($N=3,536$ in 2016, $N=15,955$ in 2017, and $N=3,206$ in 2018).

Results

- Average A1c was 7.8%, 2016–2018.
- About half were overweight or obese.

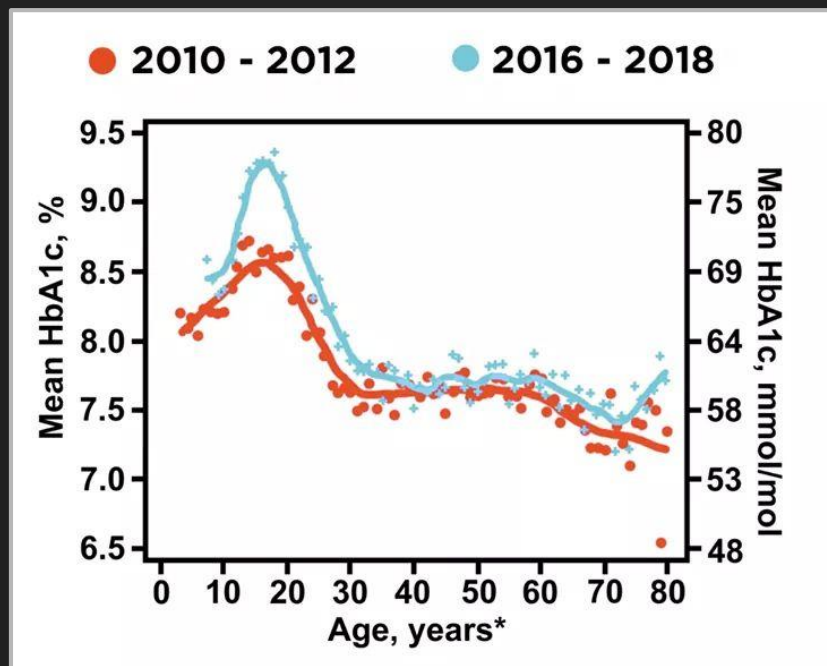


Journal Volume 21, Number 2, Feb 2019

<https://www.liebertpub.com/doi/full/10.1089/dia.2018.0384>

Technology is Not Improving Prevailing Outcomes

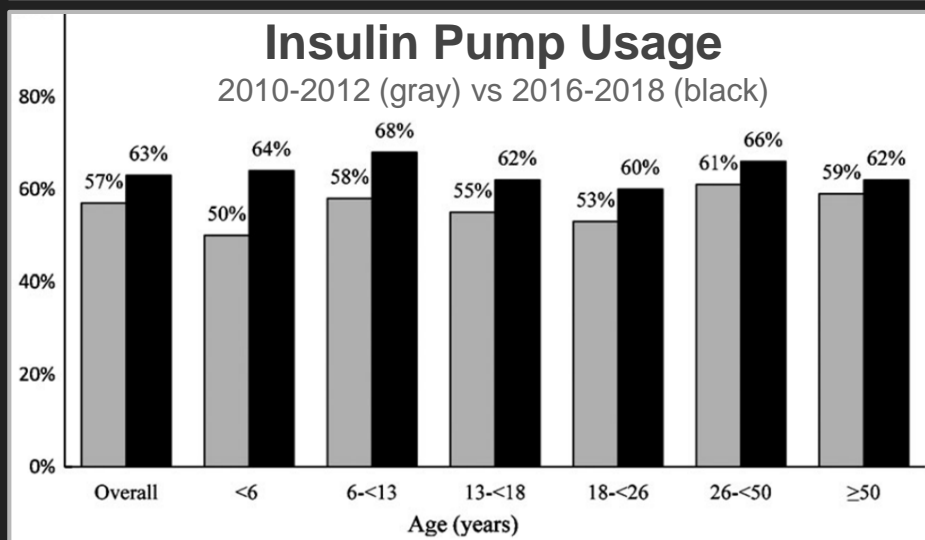
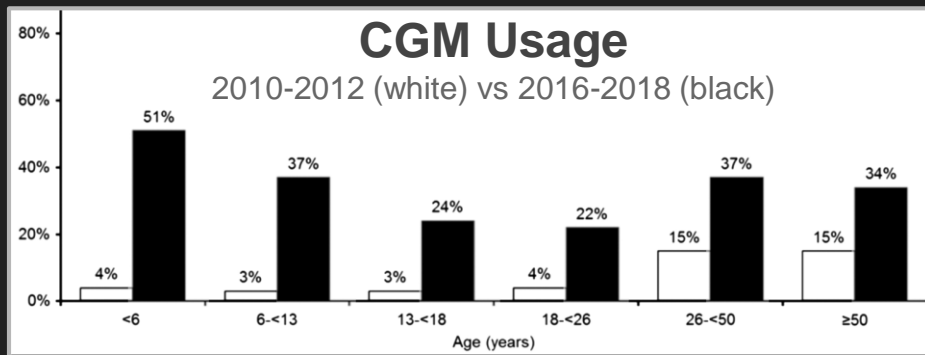
These charts are all from the same paper.



Diabetes Technology & Therapeutics

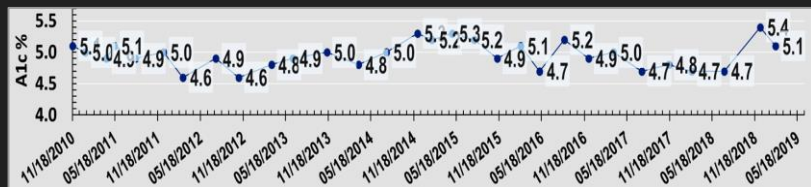
Journal Volume 21, Number 2, Feb 2019

<https://www.liebertpub.com/doi/full/10.1089/dia.2018.0384>



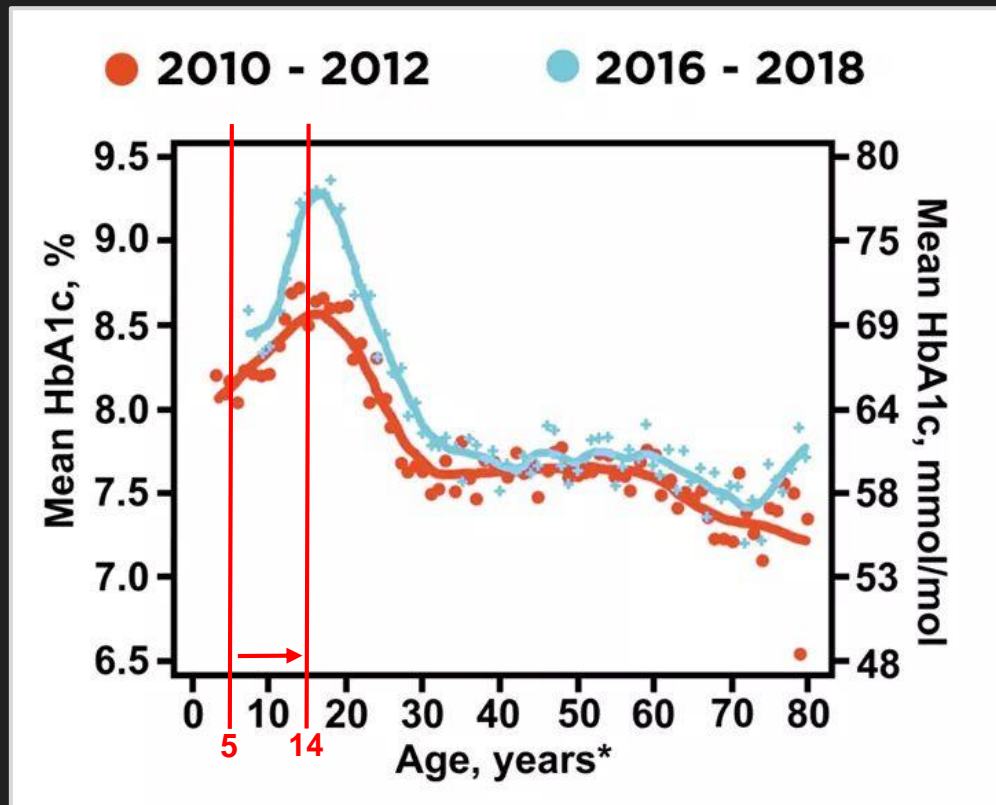
Andrew's Glycemic Control vs USA Prevaling

Starting five months after his T1D diagnosis, between Nov-2010 and Feb-2019, Andrew had 30 A1c tests:



The average is **4.96%** \pm 0.21.

Compare 4.96% to findings published in February of 2019, shown in the graph to the right.



<https://www.liebertpub.com/doi/full/10.1089/dia.2018.0384>

A1c Correlation to Average Blood Glucose Level

A1c Chart based on DCCT formula

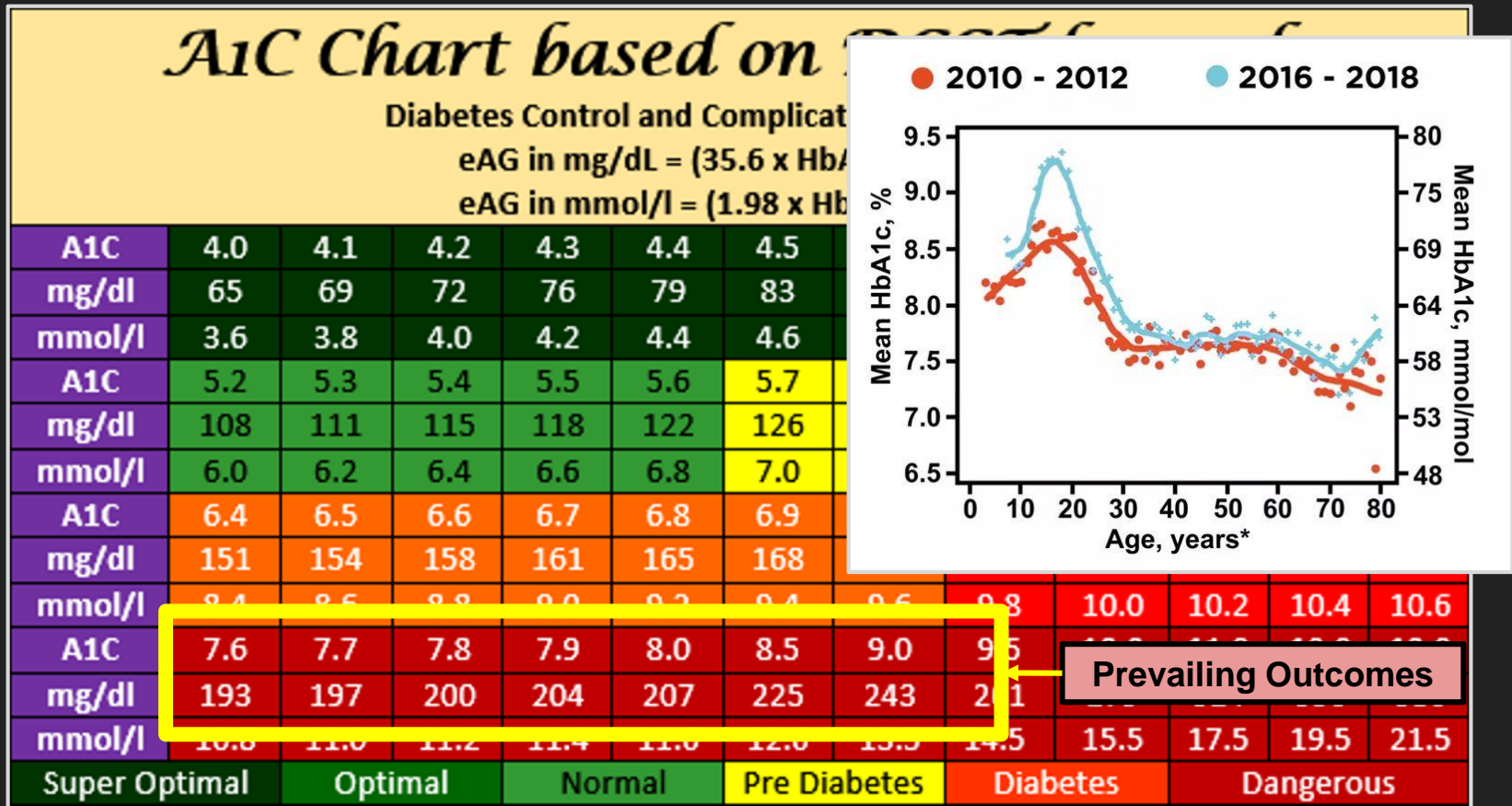
Diabetes Control and Complications Trial (DCCT);

eAG in mg/dL = (35.6 x HbA1c) - 77.3 or

eAG in mmol/l = (1.98 x HbA1c) - 4.29.

A1C	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1
mg/dl	65	69	72	76	79	83	86	90	93	97	101	104
mmol/l	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
A1C	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3
mg/dl	108	111	115	118	122	126	129	133	136	140	143	147
mmol/l	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2
A1C	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5
mg/dl	151	154	158	161	165	168	172	176	180	183	186	190
mmol/l	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6
A1C	7.6	7.7	7.8	7.9	8.0	8.5	9.0	9.5	10.0	11.0	12.0	13.0
mg/dl	193	197	200	204	207	225	243	261	279	314	350	386
mmol/l	10.8	11.0	11.2	11.4	11.6	12.6	13.5	14.5	15.5	17.5	19.5	21.5
Super Optimal	Optimal		Normal			Pre Diabetes		Diabetes		Dangerous		

2019 USA Prevailing Outcomes, Boxed in Yellow



DCCT Intensive & Standard Control Groups Added

A_{1c} Chart based on DCCT formula

Diabetes Control and Complications Trial (DCCT);

$$\text{eAG in mg/dL} = (35.6 \times \text{HbA}_{1c}) - 77.3 \text{ or}$$

$$\text{eAG in mmol/l} = (1.98 \times \text{HbA}_{1c}) - 4.29.$$

A1C	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1
mg/dl	65	69	72	76	79	83	86	90	93	97	101	104
mmol/l	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
A1C	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3
mg/dl	108	111	115	118	122	126	129	133	136	140	143	147
mmol/l	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2
A1C	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5
mg/dl	151	154	158	162	165	168	172	176	180	183	186	190
mmol/l	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6
A1C	7.6	7.7	7.8	7.9	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5
mg/dl	193	197	200	204	207	225	243	261	279	297	315	333
mmol/l	10.8	11.0	11.2	11.4	11.6	12.8	13.9	14.5	15.5	17.5	19.5	21.5
Super Optimal	Optimal		Normal			Pre Diabetes		Diabetes		Dangerous		

DCCT Outcomes

Prevailing Outcomes

My Son's Outcomes Added, in Light Green

A1C Chart based on DCCT formula

Diabetes Control and Complications Trial (DCCT);

$$\text{eAG in mg/dL} = (35.6 \times \text{HbA1c}) - 77.3 \text{ or}$$

$$\text{eAG in mmol/l} = (1.98 \times \text{HbA1c}) - 4.29.$$

A1C	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1
mg/dl	65	69	73	77	81	85	86	90	93	97	101	104
mmol/l	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
A1C	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3
mg/dl	108	111	115	118	122	126	129	133	136	140	143	147
mmol/l	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2
A1C	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5
mg/dl	151	154	158	162	165	168	172	176	180	183	186	190
mmol/l	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6
A1C	7.6	7.7	7.8	7.9	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5
mg/dl	193	197	200	204	207	225	243	261	279	297	315	333
mmol/l	10.8	11.0	11.2	11.4	11.6	12.8	13.5	14.5	15.5	17.5	19.5	21.5
Super Optimal	Optimal		Normal			Pre Diabetes		Diabetes		Dangerous		

Andrew's 9-years

DCCT Outcomes

Prevailing Outcomes

Takeaways

- Prevailing outcomes are not good.
- Recent studies show that outcomes are getting worse.
- Vastly better outcomes are possible.

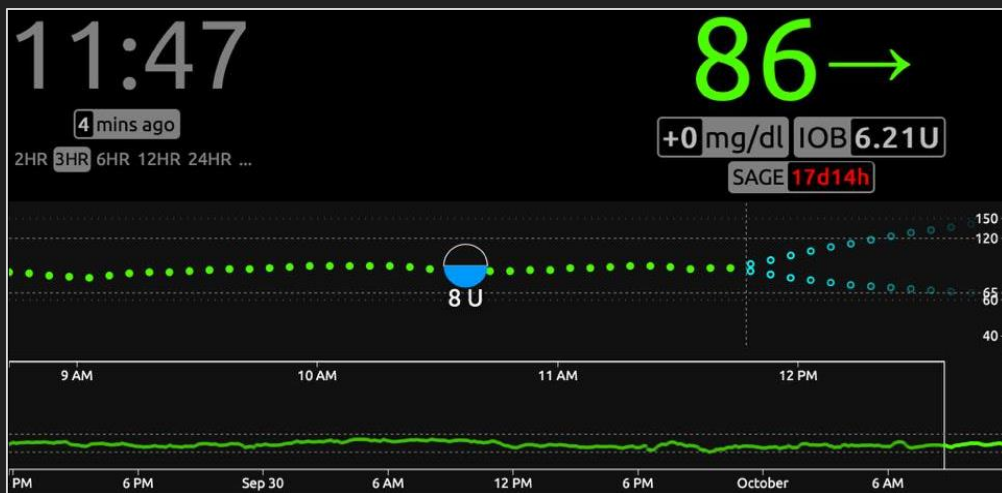
Summary of Dr. Bernstein's
Diabetes Management Regimen
and
How We Apply It Day-to-Day

High-Level Overview of Dr. Bernstein's Regimen

The Laws of Small Numbers

“Big inputs make big mistakes; small inputs make small mistakes.”

We pursue long and shallow hills.
We avoid short and steep peaks.



Low-carb, high-protein diet

- Carbohydrate has a limit.
- Protein has a goal.
- Fat comes along for the ride.

Properly using insulins

- Using the correct insulins.
- Proper dosing and timing.

Precisely correcting lows

- Using measured glucose doses.
- Not over-correcting.

High-Level Overview of Dr. Bernstein's Regimen

The Laws of Small Numbers

“Big inputs make big mistakes; small inputs make small mistakes.”

Low-carb, high-protein diet

- Carbohydrate has a limit.
- Protein has a goal.
- Fat comes along for the ride.

Properly using insulins

- Using the correct insulins.
- Proper dosing and timing.

Precisely correcting lows

- Using measured glucose doses.
- Not over-correcting.

Carbohydrate Is Not an Essential Macronutrient, but Protein and Fat Both Are



Elephant in
the room...

"We have essential amino acids, we have to eat protein or we're gonna die. We have fatty acids that are essential, we have to eat fats or we're gonna die. But there's *no such thing as an essential carbohydrate...*"

R. Lundquist M.D.

CARBLOADED.COM

<https://youtu.be/89sHwqB9PNc?t=73>

Institute of Medicine of The National Academies

Dietary Reference Intakes (1,332 pages)

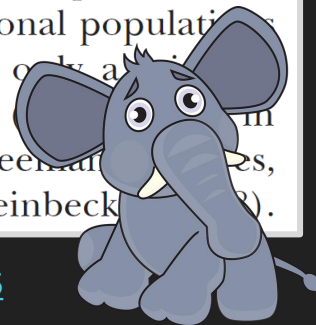
2005 Edition

Chapter 6: Dietary Carbohydrates

Page 275

Clinical Effects of Inadequate Intake

The lower limit of dietary carbohydrate compatible with life apparently is zero, provided that adequate amounts of protein and fat are consumed. However, the amount of dietary carbohydrate that provides for optimal health in humans is unknown. There are traditional populations that ingested a high fat, high protein diet containing only a minimal amount of carbohydrate for extended periods of time (some cases for a lifetime after infancy (Alaska and Greenland Eskimos, Inuits, and Pampas indigenous people) (Du Bois, 1928; Heinbeck, 1988).



<https://www.nap.edu/read/10490/chapter/8#275>

DRI

DIETARY REFERENCE INTAKES

FOR

Energy,

Carbohydrate,

Fiber,

Fat,

Fatty Acids,

Cholesterol,

Protein,

and

Amino Acids

Food and Nutrition Board
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Diets Need No Carbs, but Cells Do Need Glucose.

And several human metabolic processes make glucose.

Two of those are:

- **Gluconeogenesis** - makes glucose from non-carbohydrate substrates, including amino acids from protein foods, and is performed primarily by the liver.
- **Glycogenolysis** - makes glucose from glycogen and is performed primarily by the liver and muscle cells.

References:

- <https://en.wikipedia.org/wiki/Gluconeogenesis>
- <https://www.ncbi.nlm.nih.gov/books/NBK21150/>

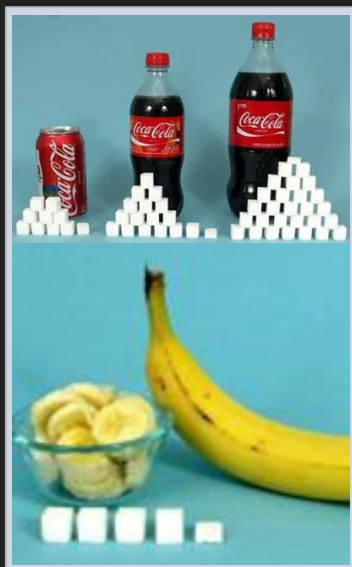


How Much Glucose is Normally in a Person?

The average adult has between 4.5 and 5.5 liters of blood.

At 83 mg/dL glucose concentration in 5 liters of blood (50 deciliters), that is:

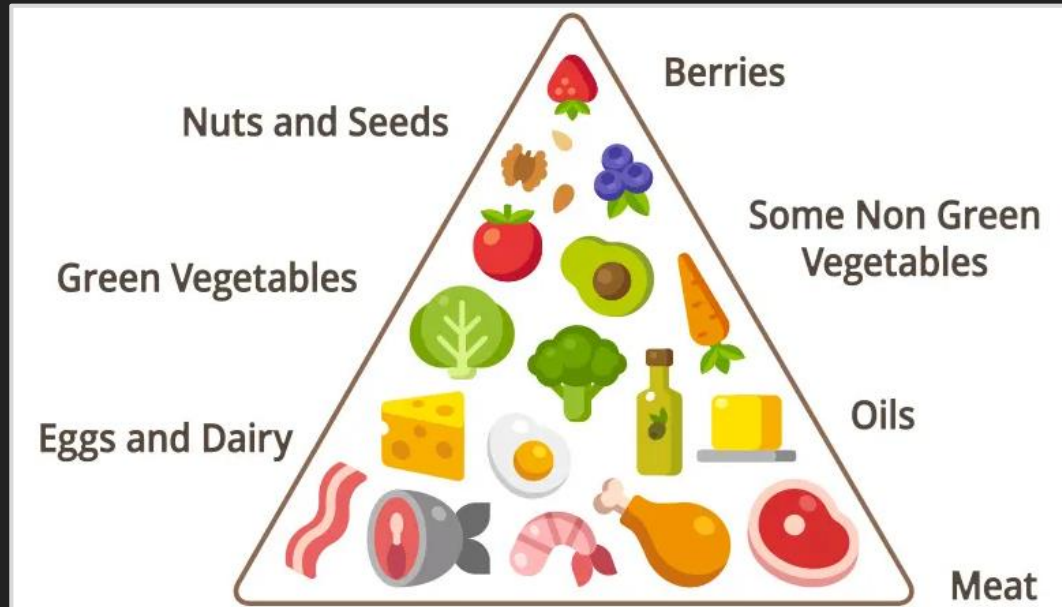
$83 \text{ mg/dL} \times 50 \text{ dL} = 4,150 \text{ mg}$, which is **4.2 grams or 1 teaspoon.**



Food or Drink Item	Carbohydrate		Versus Whole Body	
12 oz can of cola	39 g	9.2 tsp	9.2x	920%
20 oz bottle of cola	65 g	15.5 tsp	15.5x	1548%
Box of raisins, 1.5 oz	34 g	8.1 tsp	8.1x	810%
White bread, 2 slices	30 g	7.2 tsp	7.1x	714%
Medium apple, 6.4 oz	25 g	6 tsp	6x	595%
Raw pecans, 1 oz	3.9 g	0.9 tsp	9/10th	93%
Cheddar cheese, 2 slices	0.8 g	0.2 tsp	1/5th	19%
Zero sugar or diet cola	0 g	0 tsp	0	0%



Food Pyramid - Low-Carb, High-Protein Diet



Our goal is to provide excellent nutrition while avoiding rapid increases in blood sugar.

We do not fear fat, but we do not push fat, nor do we chase ketosis.

Fat is along for the ride.

COMPLETELY EXCLUDE FOODS LIKE



In Practice: Daily Carbohydrate & Protein Intake

Two random November 2018 days for Andrew averaged as follows:

Macronutrient	Grams
Carbohydrate	30.5
Protein	258



Growing Kids Need a Lot of Protein



Nov 8, 2015, age 10



Nov 19, 2016, age 11



Nov 17, 2018, age 13

Between two recent endo visits (12/10/2018 and 02/13/2019), Andrew grew 2 cm (0.8 in) in 65 days.

How Much Protein?

Andrew's hunger guides his protein consumption.

Andrew knows that he can always ask us to adjust his protein portions up or down and he does so as he desires. In recent months, he has moved his evening meat portion from as low as 8 oz to as high as 11 oz, in accordance with his activity and hunger.

- We “front load” breakfast to keep him satiated and to reduce temptation.
- By packing protein and calories into breakfast, we sacrifice a modicum of blood glucose control, but feel that the benefits outweigh that sacrifice.

Per Day, Dr. Bernstein Recommends:

- A minimum of 1.2 g/kg of body weight for sedentary adults.
- Two to five times that amount (2-6 g/kg) for active, growing children.

High-Level Overview of Dr. Bernstein's Regimen

The Laws of Small Numbers

“Big inputs make big mistakes; small inputs make small mistakes.”

Low-carb, high-protein diet

- Carbohydrate has a limit.
- Protein has a goal.
- Fat comes along for the ride.

Properly using insulins

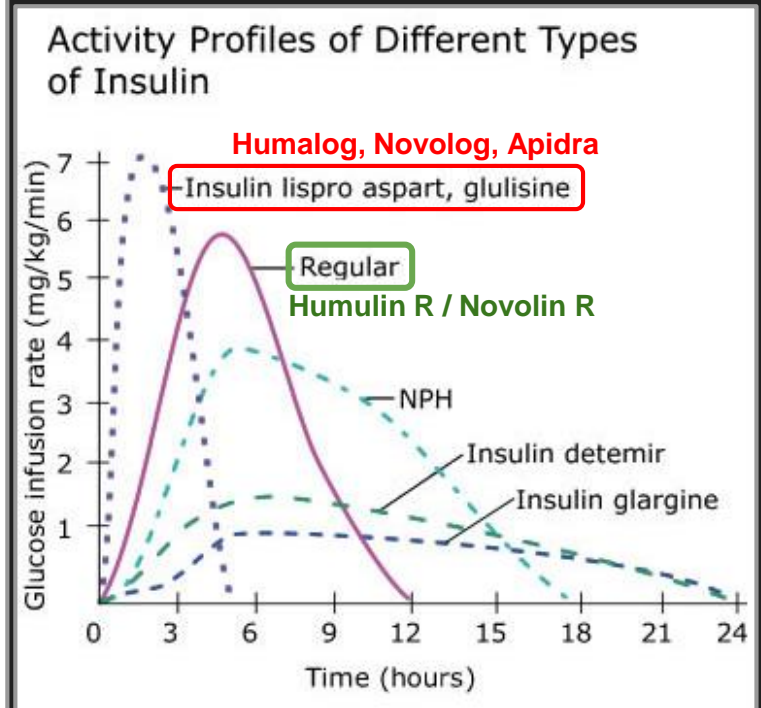
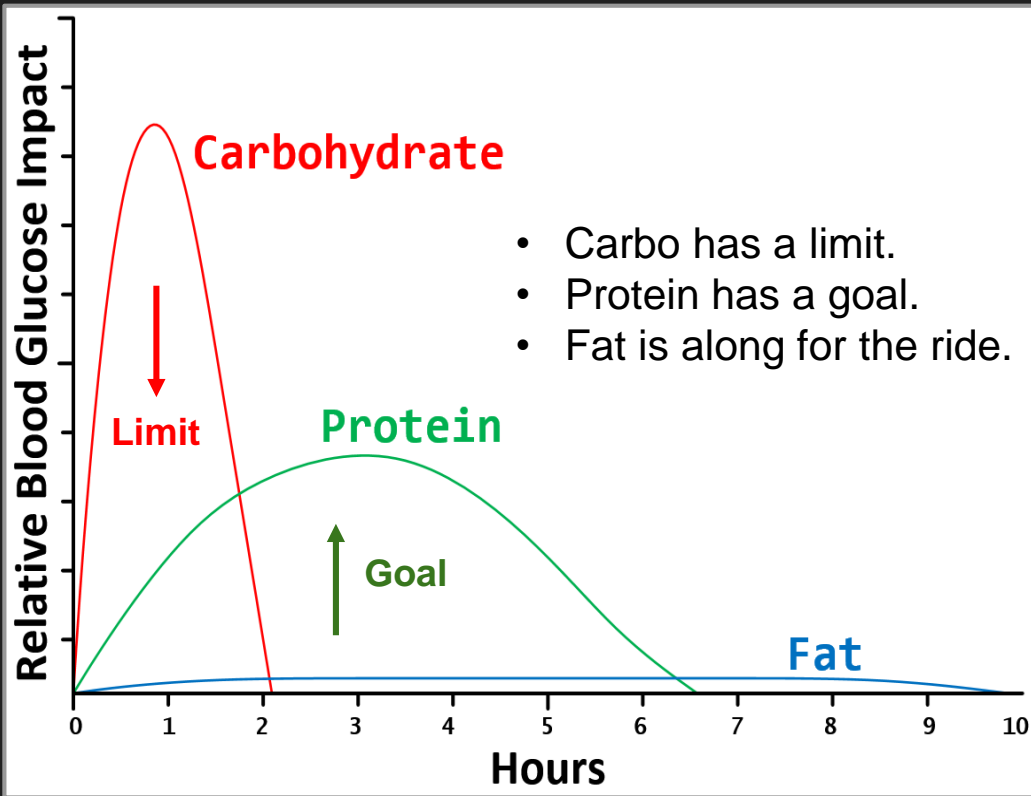
- Using the correct insulins.
- Proper dosing and timing.

Precisely correcting lows

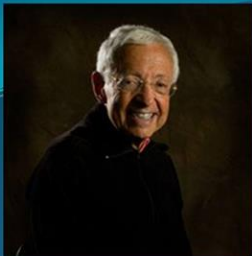
- Using measured glucose doses.
- Not over-correcting.

Properly Using Insulins

Using the correct insulins - for a low-carb, high-protein diet, Regular has the best profile of action.
Proper dosing and timing - experimentally determine correct dose and timing, per meal, per time of day.



<http://tinyurl.com/j88w4x8>

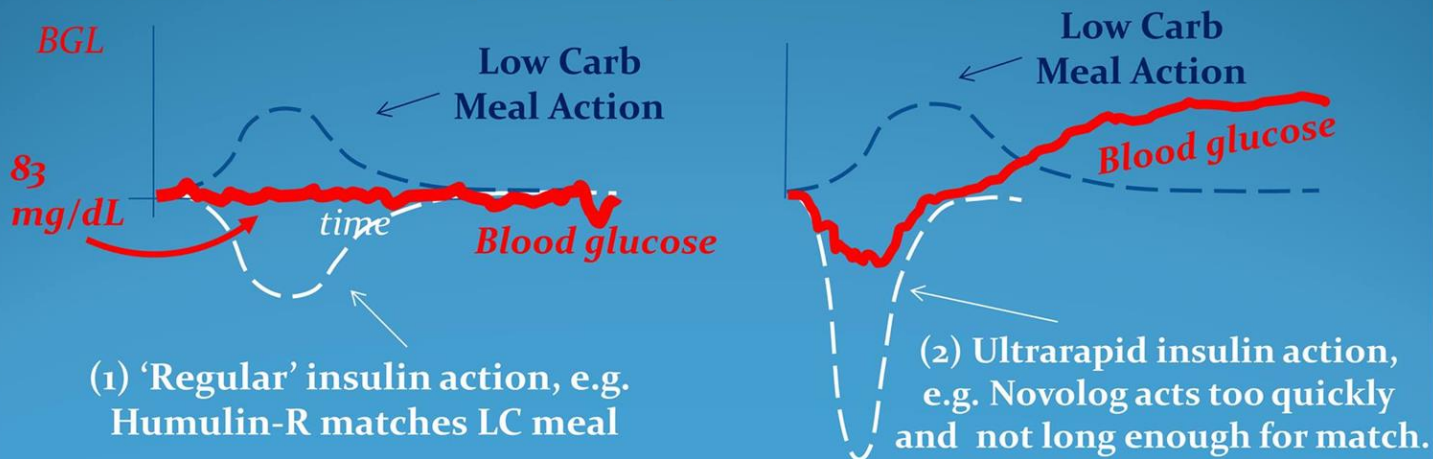


Richard K. Bernstein, MD

On the right bolus insulin for low carb meals

“If you are on a low carb diet, the timing of Regular (e.g. Humulin-R) insulin is just the timing you need.”

- (1) R insulin matches the glucose load of low carb, protein meals.
- (2) Ultrarapid insulin peak is too fast and too sharp to match low carb,



High-Level Overview of Dr. Bernstein's Regimen

The Laws of Small Numbers

“Big inputs make big mistakes; small inputs make small mistakes.”

Low-carb, high-protein diet

- Carbohydrate has a limit.
- Protein has a goal.
- Fat comes along for the ride.

Properly using insulins

- Using the correct insulins.
- Proper dosing and timing.

Precisely correcting lows

- Using measured glucose doses.
- Not over-correcting.

Precisely Correcting Low Blood Sugars

Glucose does not need to be digested or converted by the liver into anything else. It is absorbed directly through the mucous membranes of the stomach and gut.

Measured amounts of **pure glucose** to raise blood sugar **rapidly** and **precisely**.

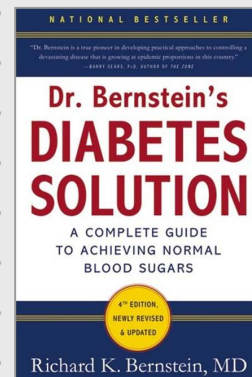


TABLE 20-1

Just a starting point. Individuals will vary.

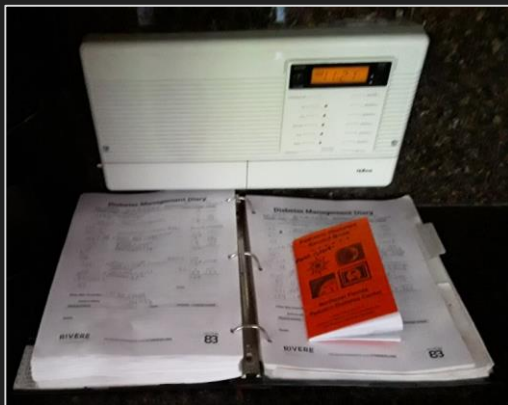
EFFECT OF 1 GRAM GLUCOSE UPON LOW BLOOD SUGAR

Body weight		1 gram glucose will raise low blood sugar	
35 pounds	16 kilograms	20 mg/dl	1.11 mmol/l
70	32	10	0.56
105	48	7	0.39
140	64	5	0.28
175	80	4	0.22
210	95	3.3	0.18
245	111	3	0.17
280	128	2.5	0.14
315	143	2.2	0.12



My Family's Day-to-Day
Application of Dr. Bernstein's
Diabetes Management Regimen

Our Day-to-Day Diabetes Management Tools



Diabetes Management Diary

Date: 11/19/2018 (Mo Tu We Th Fr Sa Su) Shot Rotation: (Right) Lower Outer

Time/BG	insulin	Food	Amount	Carbs(g)	Calories
7:10		Taco Quiche	1/8th	3	300
		Sausage		1	600
		D-Friendly Strawberry Yogurt	4oz	3	50
		Chopped Pecans	1oz	4	180
		Blueberries + Strawberries	2 tbsp	2	20
Breakfast				10	1150
9:37		Jello	1	0	10
115					
12:24		Rustic "Faux Wheat" Bread	1 slice	1.12	150
		Peanut Butter + Walden Farms Jelly	3 + 0	200 + 0	
		D-Friendly Danish Vanilla Yogurt		3	45
		Boiled eggs	2	0	140
		Cheese stick	1	0	80
Lunch		Quest Ranch Chips	1 bag	4	140
2:40		sweet tarts @ practice		11.12	155
110				2	8
7:16		Pancakes - low carb!	3	3.79	172.5
		Walden Farms Syrup		0	0
105		Fudge Crumble Bar low carb	2	6.5	404
Dinner				10.29	576.50
9:50					
97					
				Totals:	33.41 2499.5

Other BGs (Time/BG): 11:35, 104, 2:04, 79, _____, _____, _____, _____

- Actions taken: _____

Physical Activity	Times	Intensity	Carbs(g)	Protein (g)
Basketball Practice	3:00-6:00			

You can't manage what you can't see!

Advanced technology does not underlie our diabetes management success.

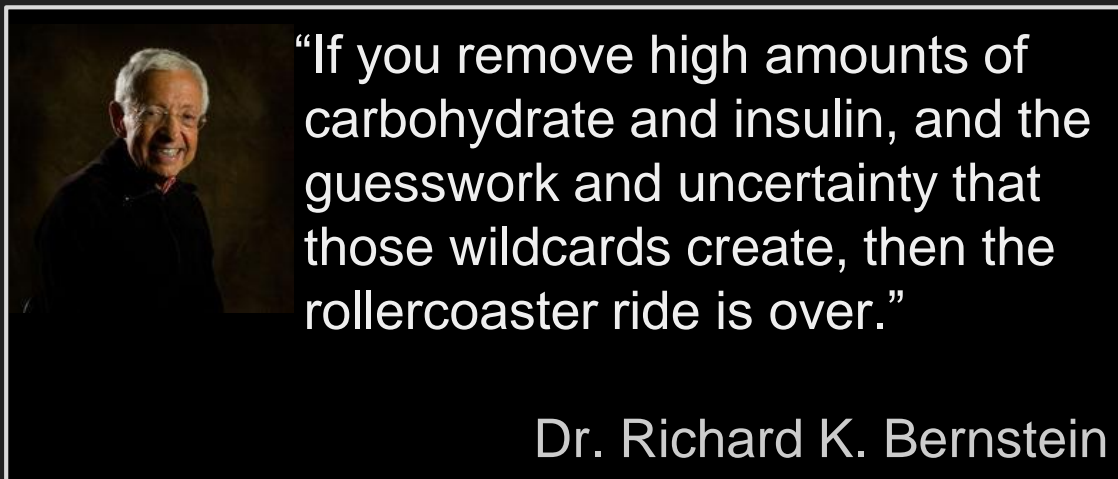
We Employ a Continuous Improvement Mindset

- Advice: **record everything**, especially in the beginning.
- We record blood glucose levels, insulin doses, foods eaten and other noteworthy events such as exercise, illness, etc.
- We reflect on that data and combine it with an understanding of the action times of insulin, to **beneficially adjust** our regimen.

Beneficial adjustments take many forms, but they most often involve raising or lowering insulin doses or moving their times forward or backward. Another adjustment might be the elimination of a certain food that spikes blood sugar.

Beneficial Adjustments Require Reliable Data

- Getting off of the blood sugar rollercoaster allows one to observe details that cannot be seen when blood sugars are in constant flux.
- Being able to observe and react to those details allows one to hone their personal management regimen.



I Am Not Anti-Technology

Diabetes technology is great, but it alone cannot provide near-to-normal blood sugars.

Even if technology someday achieves that feat, cost will keep it out of reach for most of the world's insulin-dependant population, and that matters to me...

My son is proof that technologies like CGMs and insulin pumps are not required to achieve great success.

I Am Not Anti-Technology

Despite my son not using a CGM, I recommend their use, as does Dr. Bernstein, and he insists on CGM use for all of his pediatric patients and for adults who live alone.

I know many successful insulin pumpers, but Dr. Bernstein cautions against them, primarily due to scar tissue that can occur at infusion site and degrade insulin absorption.

Lastly, I feel strongly that people deserve medical liberty. I fear a future where only ultra-rapid acting insulins are available, and are intended for use only in infusion pumps.

Our Family is in it Together

We all eat the same, low-carb and high-protein diet.

At the start, we did so for my young son's sake, but we all benefitted.

- Ellen and I both lost weight and regained health that we had lost.
- In our mid-40s, Ellen and I both weigh what we did in college!



This is a lifestyle for us - a healthy way of eating - not a “diet.”



Richard K. Bernstein, MD

On Convincing the T1 Child to Eat Low Carb:

“The most important thing at the starting point is to get the whole family to follow a healthy low carb diet that your child should be following. If you don’t do that, you’re making it hopeless.”

Q: Why Manage T1D This Way?

A: ✓ Safety,
✓ Quality of Life, and
✓ There is No Deprivation.

Why Manage T1D This Way?

Short-Term Safety

- High-carb foods require large doses of highly potent, ultra-rapid insulins.
- It is impossible to dependably match high-carb foods and ultra-rapid insulins.
- Instead, Andrew has “slower lows” and “lower highs” which are much safer.

“A high blood sugar is a low blood sugar waiting to happen.”

– Dr. Richard K. Bernstein

Long-Term Safety

- Dr. Bernstein’s dehydrating illness protocol (chapter 21) leads to dramatically fewer diabetes-related hospitalizations. Typical rates are high. <http://wrap.warwick.ac.uk/49876/>
- The commonly occurring, long-term complications of diabetes come from chronic, abnormally high blood sugar levels.

Why Manage T1D This Way?

Quality of Life

- Far less fear of diabetes due to the enhanced safety.
- Having “slower lows” and “lower highs” means that diabetes commands less constant attention.
- Becoming the “captain of your own ship” through the mastery of diabetes management is hugely rewarding.

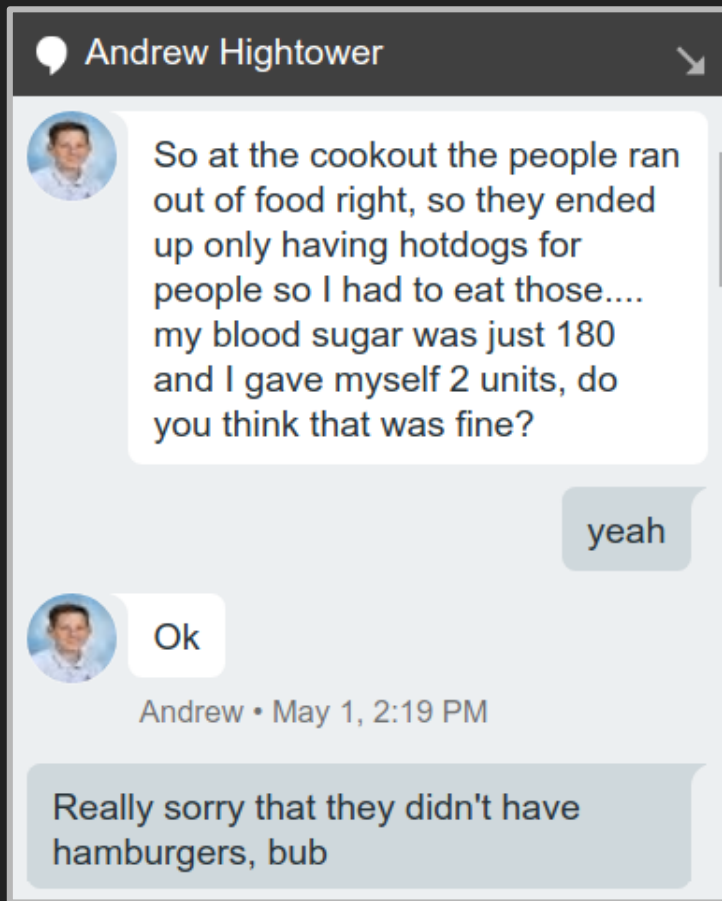


There is No Deprivation

- Most foods that we eat are from the outer perimeters of grocery stores, and we eat phenomenally well.
- We gladly trade highly processed convenience foods for enhanced safety and quality of life.



Why Manage T1D This Way? A Real Example...



This occurred on May 1st, during a 2pm conference call with Jeff Hitchcock, in which we discussed me speaking here today.

Andrew loves grilled hamburgers, but at his school's cookout, only hot dogs remained.

Fillers in those hot dogs (likely corn starch) raised his blood sugar...

Regarding his Novolog dosing, "yeah" was my simple reply.

My reply was mostly about sympathy that he missed out on hamburgers that he loves, not about the high blood sugar correction.

(2.5 hours later his blood sugar was 92 mg/dL)

What if Andrew hates you...? What if he rebels...?

My responses are:

1. The DCCT showed benefit from tight glucose control, even decades after the study ended.
2. If he rebels, he wasn't harmed on my watch.
3. He'll leave my care knowing the consequences of poor glucose control and how to avoid them.

In short, this is really just parenting with higher stakes, at least where Andrew's physical wellbeing is concerned, and I have faith in Proverbs 22:6 -

“Train up a child in the way he should go and even when he is old he will not depart from it.”

The best parenting is honest and leads by example.

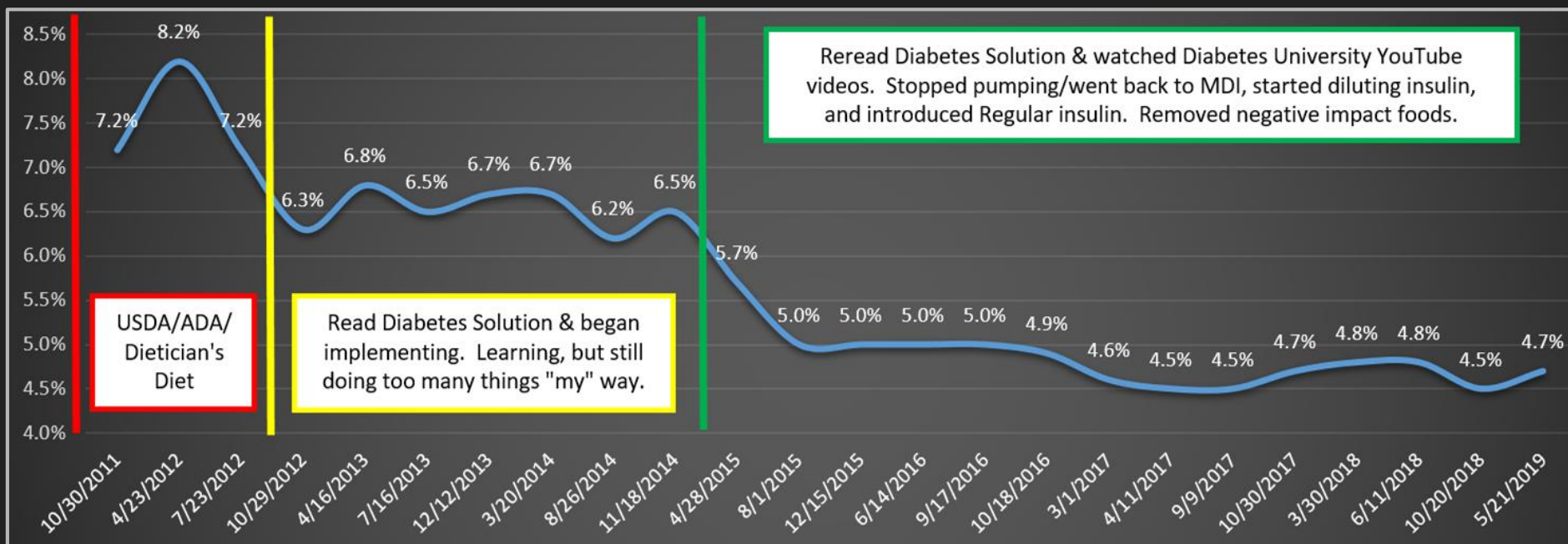


We Are Not Alone

We Are Not Alone - Age 8 Boy in St. Louis, MO

Diagnosed in 2011 and at 1 year old.

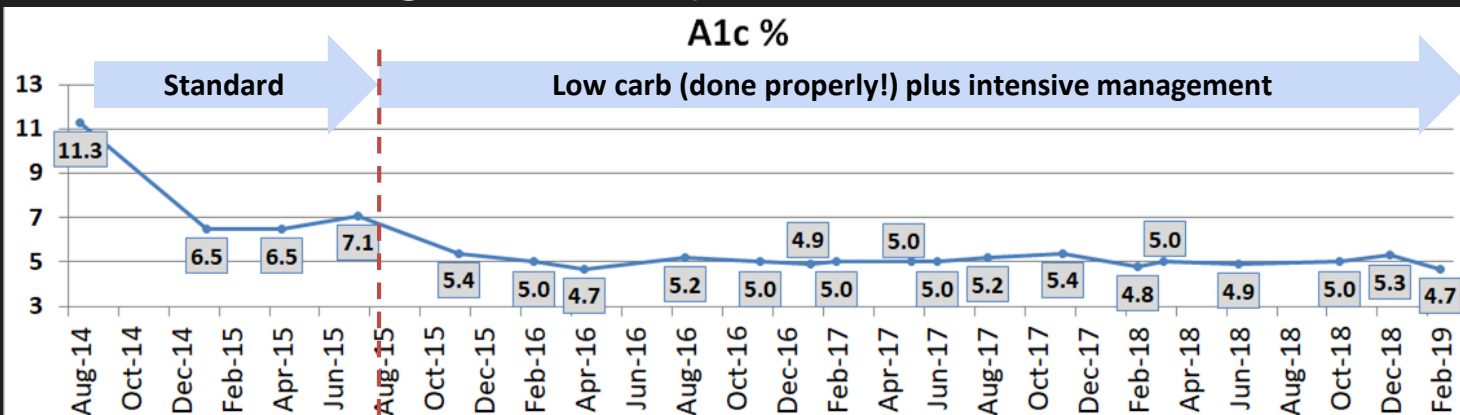
His mom provided this "journey chart" from standard treatment to following Dr. Bernstein. His A1c results have been between 4.5% and 5.0% for the past four years.



We Are Not Alone - Age 10 Boy in Melbourne, AU

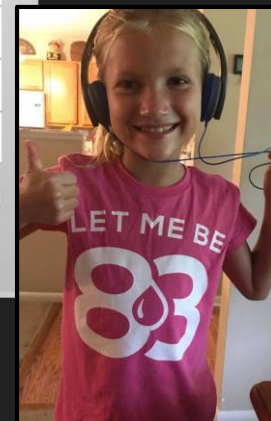
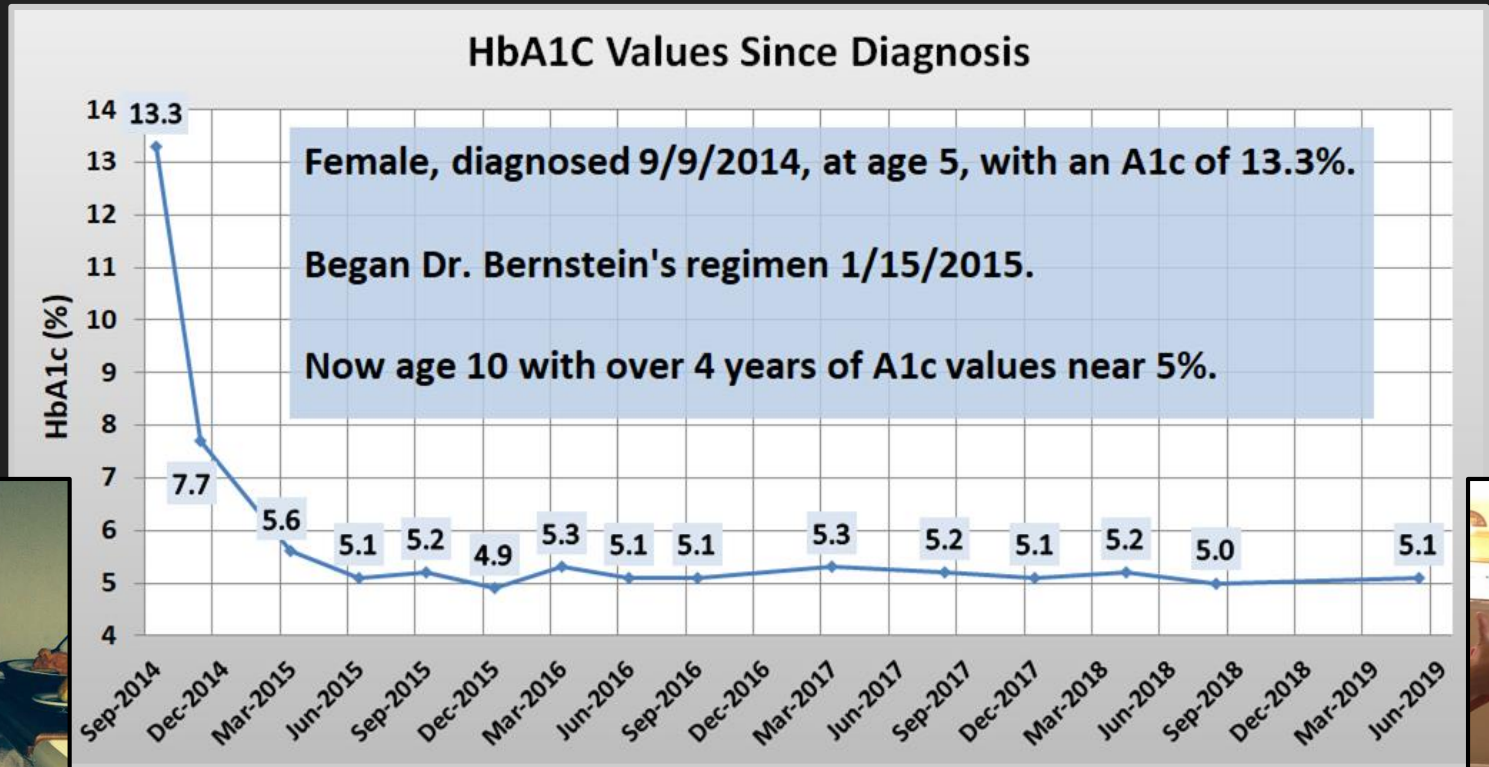
A1c% from diagnosis to present (five years)

Four years of A1c values near 5%



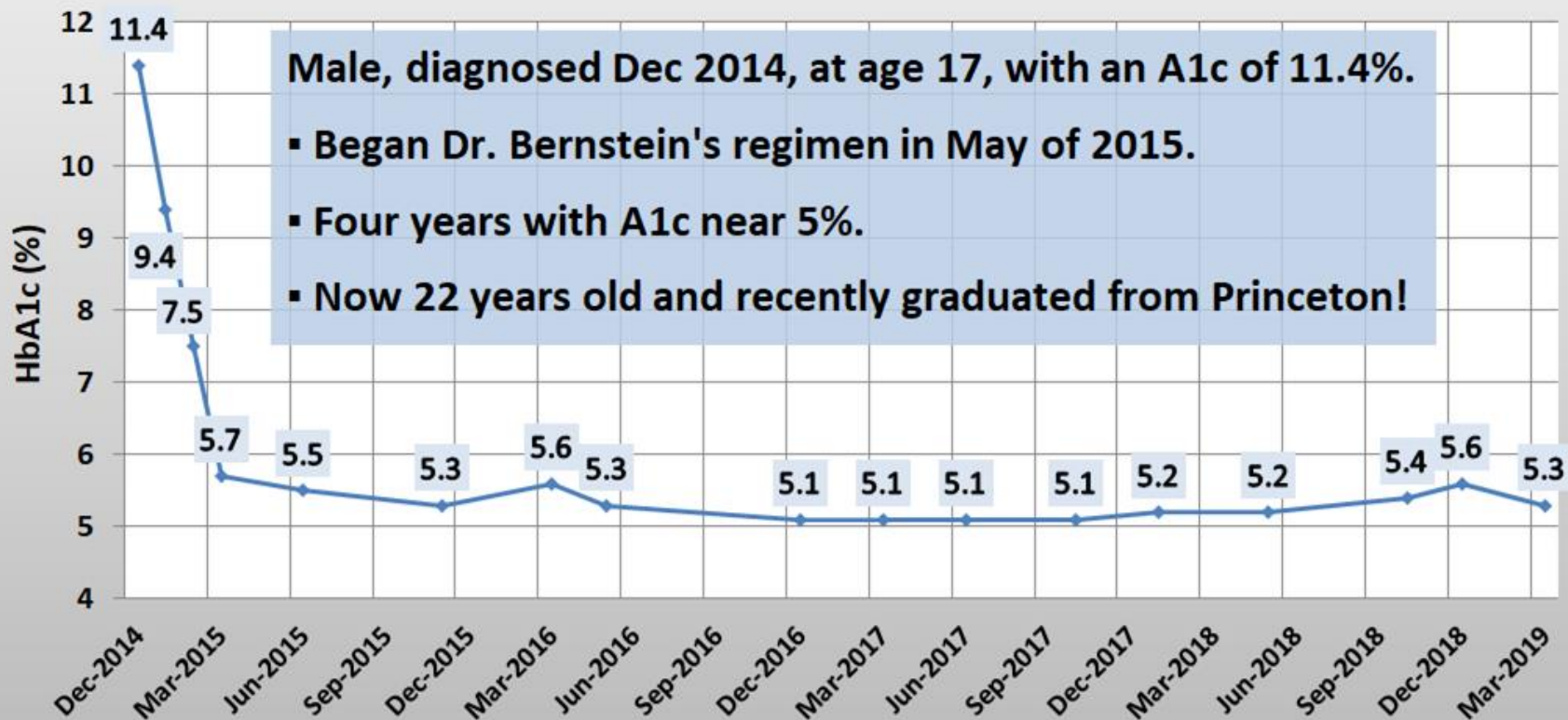
Other outcomes	Standard way	Low carb (done properly!) plus intensive management
Chronic hyperglycemia	Frequent	None
Severe hypoglycaemia	Infrequent	None
Mild to moderate hypos	Frequent	Infrequent
Wide glucose fluctuations	Yes (SD = 3.2)	None (SD = 1.2)
Growth, development, BMI	Excellent	Excellent . Tracking well for height (90 th percentile) and weight (75 th percentile)
Bone density	No concerns	No concerns
Exercise and schooling	Being impacted	No concerns / normal / minimal impact
Cardiovascular risk profile	No concerns	No concerns
Micronutrient-complete diet	No concerns	No concerns
Stress/burden on child/family	High	Low (i.e. a significant improvement)
Relationship with food	Normal	Normal
Eating behaviours	Normal	Normal
Relationship with treating team	Excellent	Excellent (the team is supportive and says the outcomes are "brilliant")
Quality of life	Poor	Excellent (i.e. a significant improvement), including sleep overs

We Are Not Alone - Emily, Age 10, Jacksonville, FL



We Are Not Alone - Gordon, a Recent College Grad

HbA1c Values Since Diagnosis



We Are Not Alone - Video Testimonials from Others

Many hours of YouTube and Facebook Videos...

Lisa Scherger, Low Carb Down Under 2015 - <https://www.youtube.com/watch?v=RtiduHZdbUg>

J. Hansen & J. Reid, Low Carb Down Under 2016 - <https://www.youtube.com/watch?v=iLg4vBGpLM0>

Dr. Jake Kushner, Low Carb Houston 2018 - <https://www.youtube.com/watch?v=yQwaSQPr3hk&t=3>

Dr. Troy Stapleton, Low Carb Down Under 2016 - <https://www.youtube.com/watch?v=hxs63IOOH0U>

Dr. RD Dikeman, Low Carb USA 2016 - <https://www.dietdoctor.com/member/presentations/dikeman>

Andrew Koutnik, TEDxUSF 2018 - https://www.youtube.com/watch?v=eDfgulV_F6o

Tracey Kimberley, Low Carb Down Under 2018 - <https://www.youtube.com/watch?v=kWqYiOk35Tc>

Justin Nolan, Tame Type 1 series of interviews - <https://www.facebook.com/tametype1/>

We Are Not Alone - TYPEONEGRIT

TYPEONEGRIT is a community of committed Bernstein followers, gathered via a private Facebook group that was founded in April of 2014.

I discovered the group in November of 2015, when it had just over 1,000 members. Today it has over 3,200 members, split about evenly between parents of children with, and adults with T1Ds.

The group is an excellent example of what is possible.

Public outreach Facebook page named Typeonegrit.

- <https://www.facebook.com/Type1Grit/>

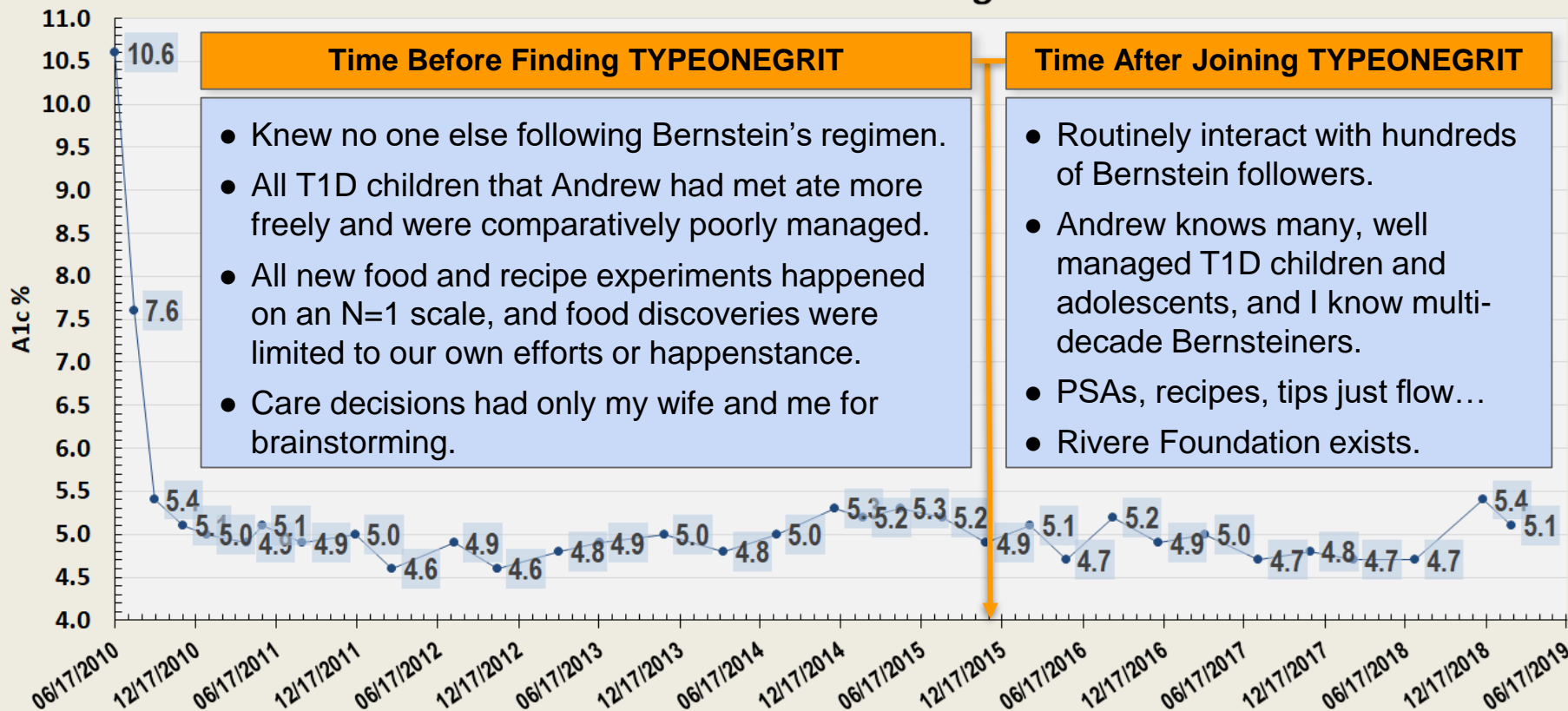


Finding TYPEONEGRIT



Lester Hightower
Member of TYPEONEGRIT
since November 17, 2015

HbA1c Values Since Diagnosis



Time Before Finding TYPEONEGRIT

- Knew no one else following Bernstein's regimen.
- All T1D children that Andrew had met ate more freely and were comparatively poorly managed.
- All new food and recipe experiments happened on an N=1 scale, and food discoveries were limited to our own efforts or happenstance.
- Care decisions had only my wife and me for brainstorming.

Time After Joining TYPEONEGRIT

- Routinely interact with hundreds of Bernstein followers.
- Andrew knows many, well managed T1D children and adolescents, and I know multi-decade Bernsteiners.
- PSAs, recipes, tips just flow...
- Rivere Foundation exists.

GRIT Together

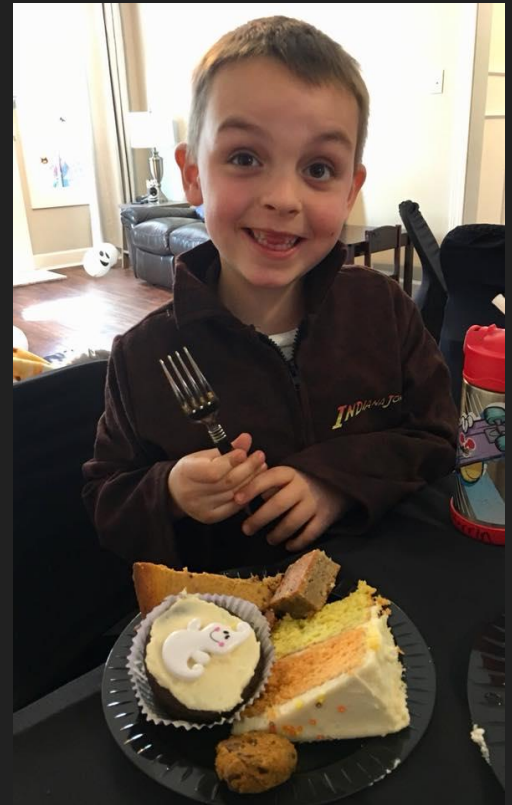
I have had the privilege of attending GRIT gatherings in three states:

Florida, Georgia, and Texas



GRIT Together

Pictures of foods from events in Florida (top) and Georgia (bottom and right).



Senior Gritters - Mr. Jamie Sharples

66 years old; lives in Chinook, Montana

Found Dr. Bernstein's first book in 1981 and has followed the regimen for 38 years, so far.



Jamie Sharples ▶ TYPEONEGRIT

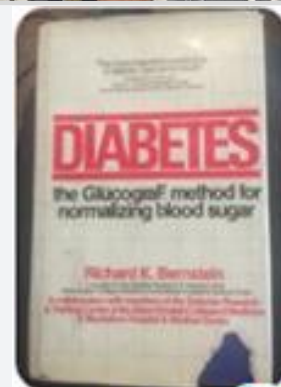
April 30, 2019

I've spent 47 years now hearing about "the cure" but I thank God for my 38 years of living in "the solution."



Jamie Sharples

This was his first book in 1981. He wasn't a doctor yet but had been admitted as a student at Albert Einstein College of Medicine in New York and he was put in charge of the diabetes research. I tracked him down there and he made me find a doctor to work with. Fortunately, I found a heart surgeon who was type one and had already started with Ultralente and regular and had been following this "outlandish" way of controlling blood sugar since reading Dr. B in medical journals.



Like · Reply



Senior Gritters - Mr. Jamie Sharples



Jamie Sharples ▶ TYPEONEGRIT

September 9, 2016 <https://www.facebook.com/groups/typeonegrit/permalink/1223134827758276/>

Hi I'm Jamie Sharples and I'm a newbie to this group. I'm 63 years old and I was diagnosed in May 1973 ... for eight years, I thought I was going to die.

⇒ ... **Described finding Dr. Bernstein** ... ←

I have nine children ... One of my daughters was diagnosed type 1 two months ago.



Senior Gritters - Ms. Aimee Fields Perrin

Turns 65 years old next week; lives in Portsmouth, New Hampshire

Diagnosed with T1D in 1971 at age 16.

- By 42 years old, I was sick and desperate. I had frozen shoulders, frozen hips, stiff-person syndrome (SPS), fatigue and depression.
- A diabetic friend sent a Dr. Bernstein article about frozen shoulder and high blood sugars. At the end was an offer for two cassette tapes that explained his method. They arrived on June 2, 1996.
- My husband and I listened to the tapes. The next day, I switched to 5 shots a day from 1, and to a very low carbohydrate diet.
- Right away, my depression and fatigue lifted.
- Over the next few months, all other complications lifted.
- I am happy and healthy. My husband and I exercise and walk 6-7 miles a day. We have 3 grown children and 5 grandchildren.
- I am eternally grateful to Dr. Bernstein for saving my life.



Senior Gritters - Ms. Wanitta Hansen

66 years old; lives in Lincoln, Nebraska

I have had type 1 diabetes for 45 years, since age 21.

About 6 years ago, at age 60, and after being quite sick for many years, I began a journey to restore my health. My motivation was marrying my husband, Ron.

I suffered from poorly controlled type 1 diabetes, painful neuropathy, gastroparesis, depression and anxiety.

On my own, I lowered my A1c from 9 to 6, but to achieve that I wasn't able to eat much. On social media, I heard of A1c values in the 5s for the first time, and the suggestion to read *Dr. Bernstein's Diabetes Solution*.



Senior Gritters - Ms. Wanitta Hansen

I read Dr. Bernstein's book and I follow his protocol to the best of my ability. I also went from an insulin pump to MDI.

My A1c has been 4.9% to 5.5% for the past 2½ years.

I no longer have symptoms of gastroparesis, neuropathy, depression or anxiety and I take far fewer medications.

My T1D brother, Dale, was 27 when he died. He was blind, with gastroparesis and kidney failure. I was diagnosed that same year. I want to help others in memory of Dale.



<https://www.facebook.com/tametype1/videos/1224434277721870/>

Recent Research on Dr. Bernstein's Management Regimen

Pediatrics Paper on TYPEONEGRIT

Boston Children's Hospital and Harvard Medical School studied TYPEONEGRIT members and published results in the June 2018 issue of Pediatrics.

PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Management of Type 1 Diabetes With a Very Low–Carbohydrate Diet

Belinda S. Lennerz, Anna Barton, Richard K. Bernstein, R. David Dikeman, Carrie Diulus, Sarah Hallberg, Erinn T. Rhodes, Cara B. Ebbeling, Eric C. Westman, William S. Yancy Jr and David S. Ludwig
Pediatrics 2018;141;

“Exceptional glycemic control of T1DM with low rates of adverse events was reported by a community of children and adults who consume a very low-carb diet... These findings are without precedent among people with T1DM, revealing a novel approach to the prevention of long-term diabetes complications.”

<https://pediatrics.aappublications.org/content/141/6/e20173349>

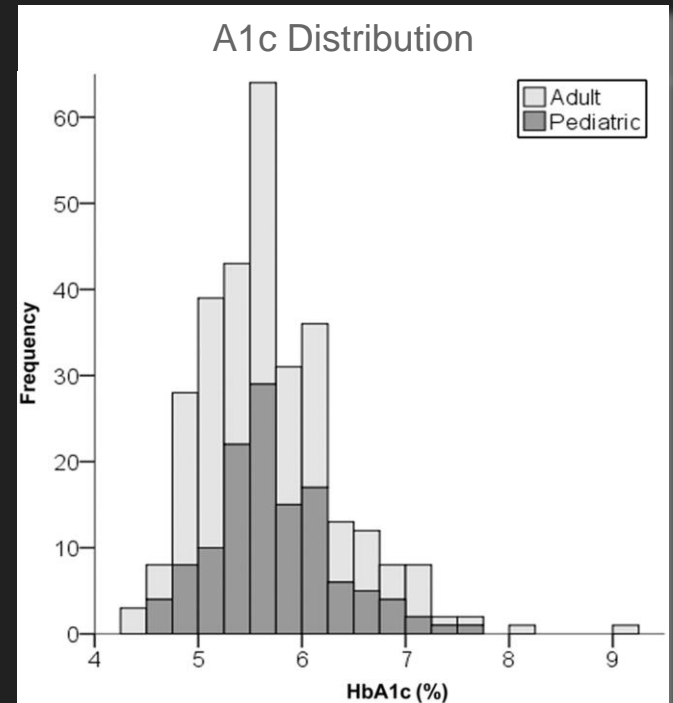
Pediatrics Paper on TYPEONEGRIT

- Average A1c: **5.67%**.
- Avg. daily carbohydrate intake: 36 grams.
- Low average total daily insulin: 0.40 U/kg.
- Remarkably low 1:1 ratio of TG to HDLc.

“Their blood sugar control seemed almost too good to be true. It’s nothing we typically see in the clinic for Type 1 diabetes.”

Belinda Lennerz

Lead study author and an instructor in the division of pediatric endocrinology at Boston Children’s Hospital and Harvard Medical School



Study's 5.67% Mean A1c, Boxed in Orange+Black

A1C Chart based on DCCT formula

Diabetes Control and Complications Trial (DCCT);

eAG in mg/dL = (35.6 x HbA1c) - 77.3 or

eAG in mmol/l = (1.98 x HbA1c) - 4.29.

A1C	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1
mg/dl	65	69	73	77	81	85	86	90	93	97	101	104
mmol/l	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
A1C	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3
mg/dl	108	111	115	118	122	126	129	133	137	141	143	147
mmol/l	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2
A1C	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5
mg/dl	151	154	157	160	163	168	172	176	180	183	186	190
mmol/l	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6
A1C	7.6	7.7	7.8	7.9	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5
mg/dl	193	197	200	204	207	225	243	261	279	297	315	333
mmol/l	10.8	11.0	11.2	11.4	11.6	12.8	13.5	14.5	15.5	17.5	19.5	21.5
Super Optimal	Optimal		Normal			Pre Diabetes		Diabetes		Dangerous		

Andrew's 9-years

TYPEONEGRIT Study

DCCT Outcomes

Prevailing Outcomes

How a Low-Carb Diet Might Aid People With Type 1 Diabetes

By Anahad O'Connor May 7, 2018



Like many children, Andrew Hightower, 13, likes pizza, sandwiches and dessert.

But Andrew has Type 1 diabetes, and six years ago, in order to control his blood sugar levels, his parents put him on a low-carbohydrate, high-protein diet. His mother makes him recipes with diabetic-friendly ingredients that won't spike his blood sugar, like pizza with a low-carb, almond-flour crust; homemade bread with walnut flour instead of white flour; and yogurt topped with blueberries, raspberries and nuts.

Andrew's diet requires careful planning — he often takes his own meals with him to school. But he and his parents say it makes it easier to manage his condition and, since starting the diet, his blood sugar control has markedly improved and he has not had any diabetes complications requiring trips to the hospital.

"I do this so that I can be healthy," Andrew, who lives with his parents in Jacksonville, Fla., said of his diet. "When I eventually move out and go to college, I'm going to keep up what I'm doing because I'm on the right path."

Meal Details

Examples of Low-carb Foods
Eaten By My Family

Typical Breakfasts

Example breakfasts. Andrew ate these on two random days in November 2018.

Food	Amount	Carb(g)	Calories	Food	Amount	Carb(g)	Calories
Taco quiche (9" round)	1/4 th	2	600	Omelet - bacon, ham, & chz	4 eggs	0	400
Walmart patty sausage	3	0	600	Walmart patty sausage	3	0	600
D-friendly strawberry yogurt	4 oz	3	50	D-friendly vanilla yogurt	4 oz	3	45
Chopped pecans	1 oz	4	180	Chopped pecans	1 oz	4	180
Blueberries and strawberries	2 tbsp	2	20	Blueberries and strawberries	2 tbsp	2	20
		11	1450			9	1245

We have low-carb pancakes from time-to-time, but more often as a Sunday afternoon dinner than as breakfast. Many successful people eat low-carb pancakes or waffles nearly everyday... The keys to success are low-carbohydrate and macronutrient consistency.

Typical School-day Lunches

Example school-day lunches. Andrew ate these on two random days in November 2018.

Food	Amount	Carb(g)	Calories	Food	Amount	Carb(g)	Calories
Rustic faux wheat bread	2 slices	1.25	150	Rustic faux wheat bread	2 slices	1.25	150
Steak, cheese slice w/mayo	3 oz	0+0+0.5	180+40+5	PB and Walden's farm jelly	2 tbsp	3 + 0	200+0
D-friendly strawberry yogurt	4 oz	3	50	D-friendly vanilla yogurt	4 oz	3	45
Red grapes	6	2	20	Dilled pickle	1	1	10
Pumpkin seeds	¼ cup	1	150	Red grapes	3	1	10
Quest protein BBQ chips	1 bag	3	140	Pumpkin seeds	¼ cup	1	150
		10.75	725			10.25	565



Typical Dinners

Example dinners. Andrew ate these on two random days in November 2018.

Food	Amount	Carb(g)	Calories
T-bone steak	10 oz	0	666
Steamed broccoli	½ cup	2	30
Coleslaw	½ cup	1	30
Low-carb Boston poke cake	1/16 th	5.5	327
		8.5	1053

Food	Amount	Carb(g)	Calories
Pork chop	9 oz	0	495
Yellow squash	½ cup	3	30
Pan fried okra	½ cup	2.5	30
Low-carb NY cheesecake	1/12 th	3	287
Blueberries and strawberries	2 tbsp	2	20
Sugar free chocolate syrup	1 tbsp	1	5
		11.5	867



Deserts pictured because... well, who doesn't like pictures of awesome low-carb treats!?

Daily Macronutrients and Calories

Meal totals from the previous three slides, left-hand and right-hand columns.

Meals	Carb(g)	Protein(g)	Calories	Meals	Carb(g)	Protein(g)	Calories
Breakfast	11	131	1450	Breakfast	9	131	1245
Lunch	10.75	58	725	Lunch	10.25	26	565
Dinner	8.5	96	1053	Dinner	11.5	74	867
	30.25	285	3228		30.75	231	2677

These days exhibit some variability (absolute rigidity is not required), but they are consistent with our low-carb, high-protein meal plan.

- Because he is highly active and growing, we ignore fat for Andrew.
- We focus on whole-food proteins and fats come along for the ride.

Food-Related Tips and Tricks

Hidden Sugars in Foods

Hidden sugars are everywhere, particularly in processed foods. You must review not only nutrition labels, but also carefully review ingredients lists.

Maltodextrin is in many “sugar free” products, including powdered sweeteners.

- Maltodextrin is rapidly digested to glucose and will spike blood sugar.

The *-tols and *-oses (e.g. mannitol, sorbitol, sucrose, xylose, lactose, etc).

Honey, molasses, corn syrup, sorghum, turbinado, treacle, dextrine, etc.

In short, read labels, look out for these ingredients, and let blood sugar results guide your future decisions more than nutrition labels.

Eating at Restaurants

With a few exceptions, eating out is not difficult, but there are landmines...

- It is common for pancake batter to be added to scrambled eggs and omelets. A recent IHOP experience is pictured.
- It is common for chicken to be sugar brined.
- Some BBQ is commonly brown sugar coated.
- Many salad dressings have added sugar.
- Bisques will be loaded with rice or wheat flour.
- Diet sodas are not trustworthy...

I like to stick with meat and veggies at BBQ or steak places, breakfast foods, or simple salads with meat and blue cheese (preferable) or ranch dressing.



McDonald's Triple Cheeseburger on a SmartBun

Contents of a McDonald's Triple Cheeseburger with no ketchup placed on a SmartBun, which is easy with this sandwich because the two cheese slices are between the three beef patties.



Nutrition Facts		https://smartbakingco.com
Serving size 1 bun (70g)		
Amount Per Serving		
Calories 72 Calories from fat 32		
Total Fat 3.5g		Sodium 180mg
Saturated Fat 0.5g		Potassium 220 mg
Trans Fat 0g		Total Carbohydrates 16g
Monounsaturated Fat 1 g		Total Dietary Fiber 12g
Polyunsaturated Fat 1 g		Erythritol 4g
Cholesterol 36mg		Sugars 0g
		Starches 0g
		NET Carbohydrates 0g
		Protein 10g

Check Nearest Location : LOCATE ME >

Español | Careers | Join

M (s) in **OUR MENU** | **ABOUT OUR FOOD** | **DEALS** | **TRENDING NOW** | **LOCATE** | **SEARCH**

360 **Calories** | 26g **Total Fat 40%** | 27g **Protein** | 5g **Total Carbs 2%**

Customize your **Triple Cheeseburger**



100% BEEF PATTY



REGULAR BUN



PASTEURIZED PROCESS AMERICAN CHEESE



PICKLE SLICES




KETCHUP



ONIONS



MUSTARD



QUEST

TORTILLA STYLE PROTEIN CHIPS

CHILI LIME

140 Calories

20g Protein

4.5g Fat

0g Sugars

With Quest Chili Lime protein chips: 572 calories, 57 grams of protein, 12 grams of carbohydrate.

Low-Carb Breads

- Prior to joining TYPEONEGRIT, my family rarely fiddled with low-carb breads.
- Today, my children eat lunchtime sandwiches most days, on one of these two low-carb bread staples.

Sliced Loaf: Michelle Thayer's Rustic Faux-Wheat Bread

<https://happyhealthythriving.blogspot.com/2017/10/rustic-faux-wheat-bread.html>



Rolls: Carolyn Ketchum's Multi-purpose Low Carb Bread Recipe

<https://alldayidreamaboutfood.com/multi-purpose-low-carb-bread-recipe/>

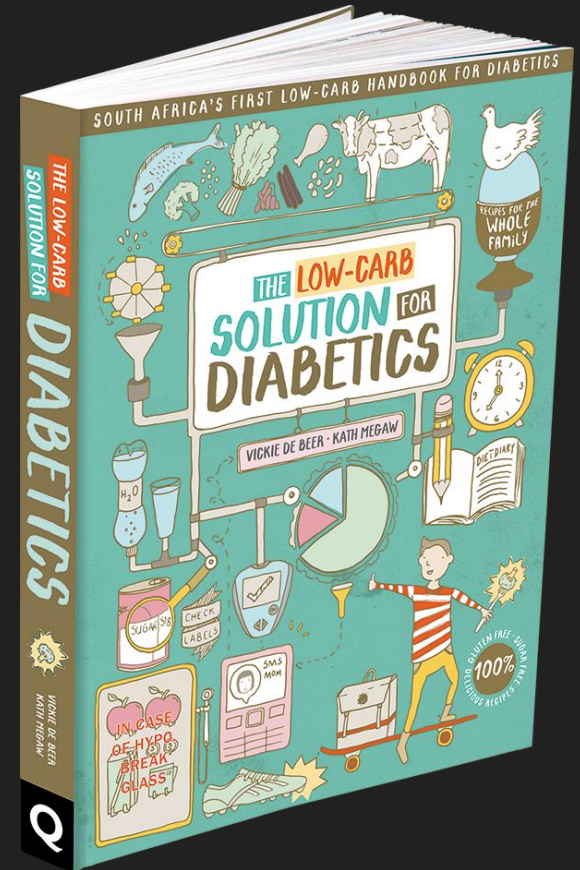


Recipe and Cookbook Recommendations

Vickie De Beer, *The Low Carb Solution for Diabetics*

Ms. De Beer is a freelance food stylist and writer who lives in South Africa. Her son was diagnosed with type 1 diabetes when he was in the third grade and her family's transition to a low carbohydrate lifestyle inspired her to write a book about their journey, *The Low Carb Solution for Diabetics*.

- <http://www.vickiedebeer.co.za/>
- <http://www.mylowcarbkitche.com/>
- <https://www.amazon.com/gp/product/191090497X/>



Recipe and Cookbook Recommendations

Maria Emmerich, Maria Mind Body Health

Ms. Emmerich struggled with her health and weight throughout childhood, which led her to become a passionate nutrition expert who specializes in the ketogenic diet and exercise physiology. She is an international bestselling author and Ellen uses several of her cookbooks. Maria also has the dubious honor of publishing my favorite low carb chocolate cake recipe; link below.

- <https://mariamindbodyhealth.com/>
- <https://mariamindbodyhealth.com/keto-chocolate-cake/>
- <https://www.amazon.com/Maria-Emmerich/e/B004OU19MU/>



Recipe and Cookbook Recommendations

Carolyn Ketchum, All Day I Dream About Food

Ms. Ketchum is the writer and recipe developer behind All Day I Dream About Food, a mostly low carb, gluten free food blog. After being diagnosed with gestational diabetes during her third pregnancy, Carolyn began watching her carb intake. When diabetes stuck around, she needed to find new ways to continue her lifelong passion for baking and cooking. Her blog led to a string of cookbooks, and Ellen uses several of them.

- <https://alldayidreamaboutfood.com/>
- <https://www.amazon.com/Carolyn-Ketchum/e/B0765C2XS1/>



Introduction to the Rivere Foundation, D.B.A. Let Me Be 83



Rivere Foundation Mission

To promote a diabetes management regimen, anchored in nutrition and the proper use of insulins, that allows people with diabetes to achieve near-to-normal blood glucose levels.

Goals are to:

1. inform patients of the choice, and
2. change standards of care that make success nearly impossible.

LetMeBe83.org

Facebook.com/letmebe83



Why the Rivere Foundation?

“If you’re in the luckiest 1% of humanity, you owe to rest of humanity to think about the other 99%.”



“Should you find yourself in a chronically leaky boat, energy devoted to changing vessels is likely to be more productive than energy devoted to patching leaks.”

Why the Rivere Foundation?

“People will always try to stop you from doing the right thing if it is unconventional.”

Warren Buffet



LET ME BE



RIVERE
FOUNDATION

Conventional: Teen Boys Need 225g+ Carbs/Day!



A parent/caregiver guide

Carbohydrate Counting for Children with Diabetes


Answers That Matter.

How Many Carbs Does Your Child Need to Eat?

Your registered dietitian (RD) can help you decide how many carbs your child needs. The amount depends on your child's age, gender and activity level. Each child has different needs. The carb amounts in the table below are general examples. If your child is physically active, he or she may need more carbs.

Carb Amounts by Age

Boys	<5 years 30 to 45 grams of carbs at each meal	5-12 years 45 to 60 grams of carbs at each meal	Teens 60 to 75+ grams of carbs at each meal
Girls	30 to 45 grams of carbs at each meal	45 to 60 grams of carbs at each meal	45 to 75 grams of carbs at each meal

Snacks, if needed, are usually 15 to 30 grams of carbs.

Talk to your RD or healthcare provider to help you decide on the amount of carbs that is right for your child at each meal and snack.

Sample of an approximate 45 gram carb meal:

- 1/2 cup mashed potatoes
- 1/2 cup canned peaches
- 1 cup skim milk†

† Children younger than 2 years old
should drink whole milk.

Add these to complete the meal:

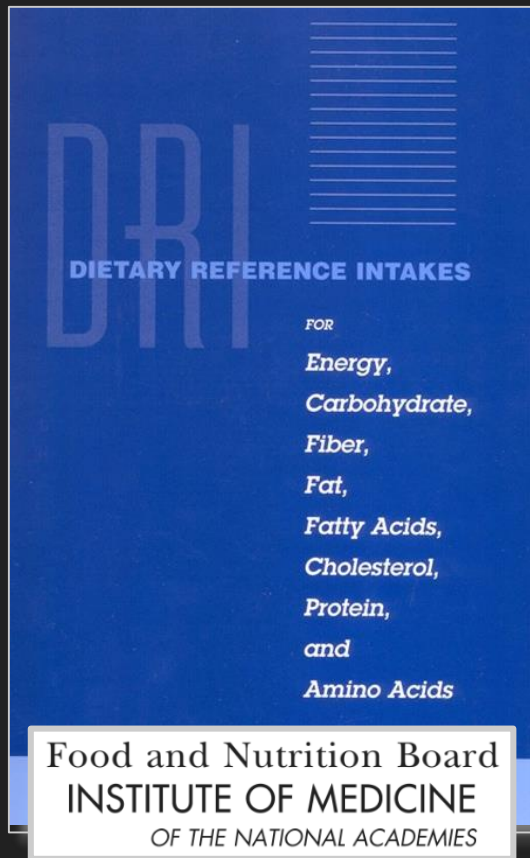
- 2-3 ounces of chicken
- 1 green salad
- 1-2 tablespoons of dressing

Diabetes Care and Education (DCE), a dietetic practice group of the Academy of Nutrition and Dietetics, promotes quality diabetes care and education. DCE is comprised of members of the Academy of Nutrition and Dietetics who are leaders in the field of medical nutrition therapy (MNT) and care of people with diabetes. Their expertise is widely recognized throughout the diabetes community. We are pleased to have had the opportunity to collaborate with this group of professionals on the creation of Lilly's Carbohydrate Counting for Children with Diabetes.

We hope you find it a valuable resource.



But the Institute of Medicine's DRI Indicates that Dietary Carbs are Not Required...



2005 Edition

Chapter 6: Dietary Carbohydrates

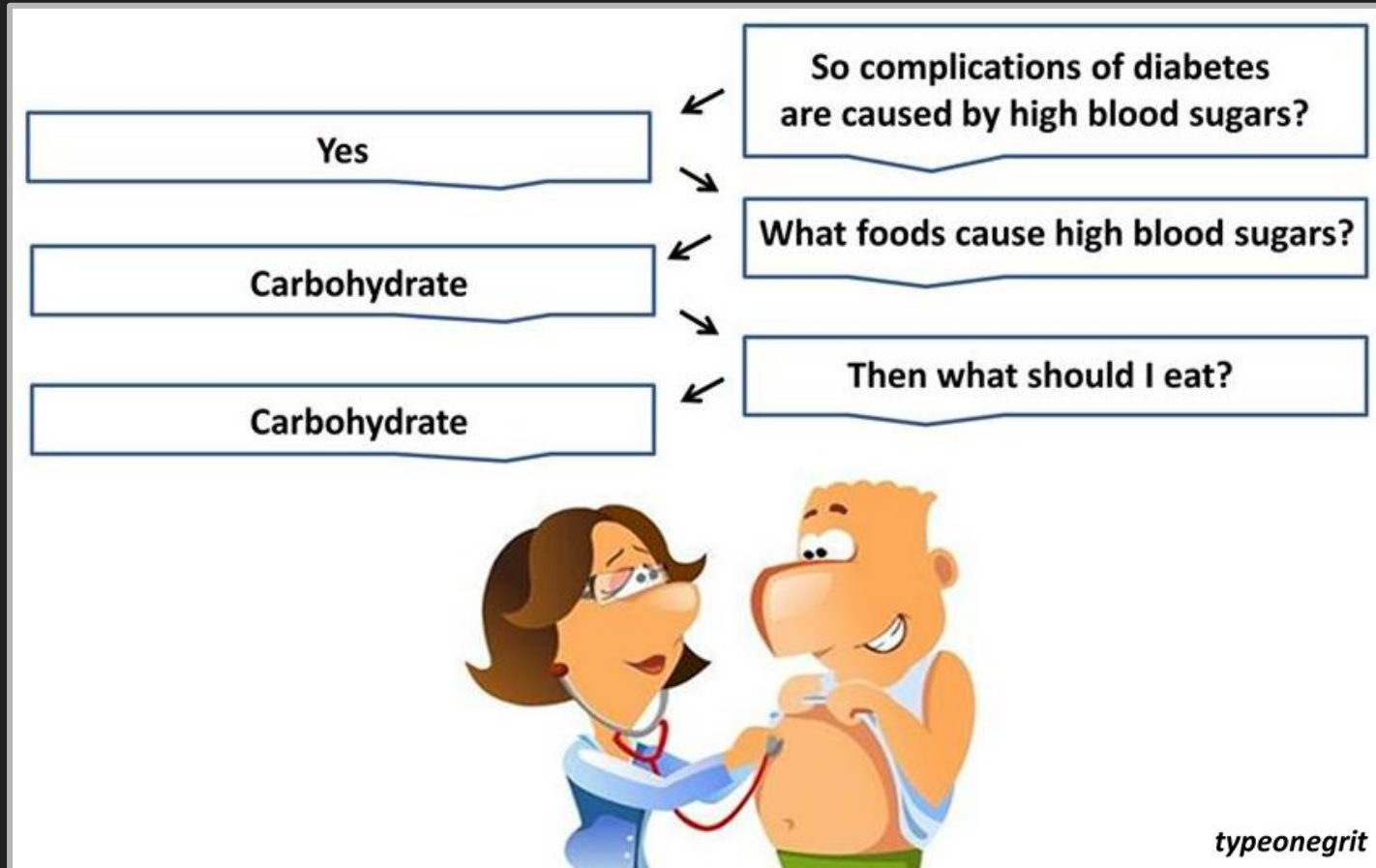
Page 275

Clinical Effects of Inadequate Intake

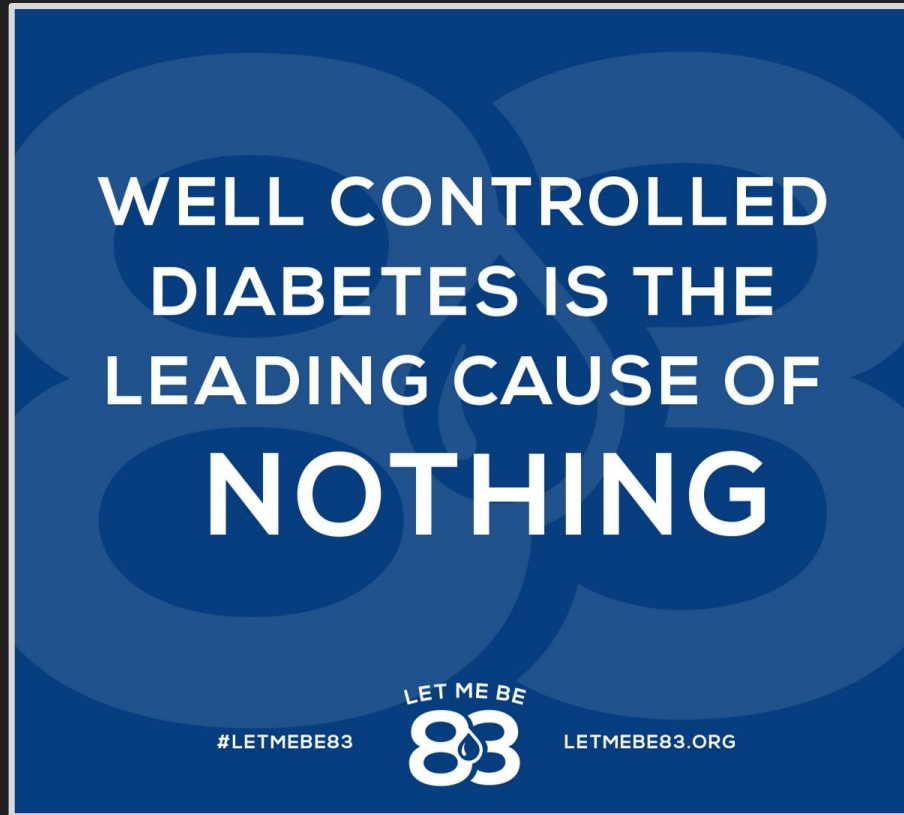
The lower limit of dietary carbohydrate compatible with life apparently is zero, provided that adequate amounts of protein and fat are consumed. However, the amount of dietary carbohydrate that provides for optimal health in humans is unknown. There are traditional populations that ingested a high fat, high protein diet containing only a minimal amount of carbohydrate for extended periods of time (Masai), and in some cases for a lifetime after infancy (Alaska and Greenland Natives, Inuits, and Pampas indigenous people) (Du Bois, 1928; Heinbecker, 1928).

<https://www.nap.edu/read/10490/chapter/8#275>

Does Conventional, High-Carb Advice Make Sense?



In short, the Rivere Foundation exists because...



...and Prevailing Outcomes are Not Well Controlled.

Many Resources are Available at LetMeBe83.org

- Recipes and Links to Recipe Blogs
- Recommended Products (snack foods, cooking supplies, etc.)
- An Online Store with Items Like:
 - Recommended books
 - LMB83 swag such as shirts, caps, coffee mugs, fanny packs, etc.
 - LMB83 blood sugar journal, shopping list, etc.
 - LMB83 “Success Kits” - a great gift for beginners
- Infographics (some were shown in prior slide)
- Information about Dr. Bernstein and His Regimen
- Pertinent Diabetes University Videos
- Fundraising Information (Registered 501(c)(3) public charity)
- Event Information

Documentary Film - 22 minute short-film released

MADNESS:
THE cost
OF carb\$



DIRECTED BY **KUANG LEE** A **SATELITE FILMS** MOVIE
PRODUCED BY **BETHANY MCKENZIE** EXECUTIVE PRODUCER **LET ME BE 83**

WWW.COSTOFCARBS.COM

<https://www.youtube.com/watch?v=hEJlgznK1FM>

www.CostOfCarbs.com

In Closing: Some Lost Wisdom of the Past

Dr. Elliott Joslin
(1869 - 1962)



“Successful treatment of diabetes with insulin depends on the utilization of all those measures that have proved of the greatest value in the treatment of diabetes without insulin. These are: adherence to a diet which will keep the urine sugar-free; avoidance of over nutrition or extreme undernutrition, and a method of life compatible with the strength such a diet affords.”

“Insulin does not cure diabetes. Insulin does not allow a diabetic to eat anything he desires. It is cruel for prominent individuals to make such statements and arouse false hopes. It is true that heretofore there has never been anything discovered as valuable for the diabetic as insulin; but diabetes, though subdued, is not yet conquered.”

June 2, 1923, in the Journal of the American Medical Association
Elliott P. Joslin, M.D., founder of the Joslin Diabetes Center

- <https://jamanetwork.com/journals/jama/article-abstract/234300>
- https://www.joslin.org/about/elliott_p_joslin_md.html

Perfection is not
attainable, but if we
chase perfection we
can catch excellence.

— Vince Lombardi —



The End

I hope this talk was helpful.

Thank you for listening.

THE END