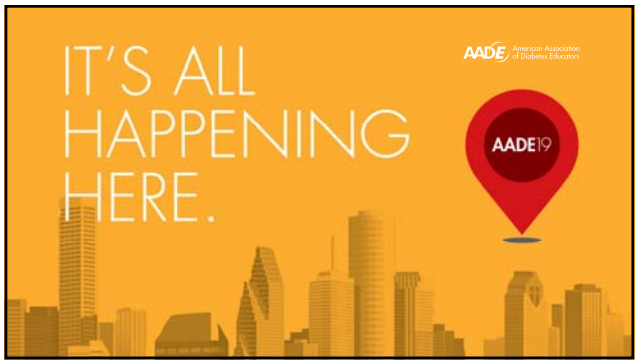

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2

Dying to be Skinny: Eating Disorders and Type 1 Diabetes (ED-DMT1)

Susan Weiner, MS RDN CDE FAADE
Asha Brown

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Disclosures

- Notice of Requirements For Successful Completion
  - Please refer to learning goals and objectives
  - Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours
- Conflict of Interest (COI) and Financial Relationship Disclosures:
  - Presenter: Susan Weiner: Advisor for Livongo, Consultant Abbott Nutrition
  - Presenter: Asha Brown, No COI/Financial Relationship to disclose
- Non-Endorsement of Products:
  - Accredited status does not imply endorsement by AADE, ANCC, ACPE or CDR of any commercial products displayed in conjunction with this educational activity
- Off-Label Use:
  - Participants will be notified by speakers to any product used for a purpose other than for which it was approved by the Food and Drug Administration.

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Learning Outcomes

- After attending this session, participants will be able to actively identify the warning signs of insulin restriction and other eating disorder symptoms in type 1 diabetes.
- After attending this session, participants will be able to lead the healthcare team on discussions of the prevalence of eating disorders in type 1 diabetes, medical risks and treatment outcomes.
- After attending this session, participants will be able to actively explain how eating disorder treatments (psychological and nutritional) can be adapted for the person with type 1 diabetes.

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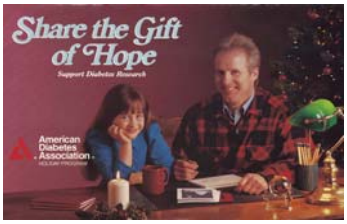
Asha & Dad 1992



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Asha & Dad 2001

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Asha, Summer 2002

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Asha, Fall 2002

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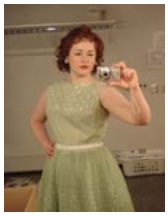
Asha, Spring 2007



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Asha Spring 2008

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And then, in 2009, my world fell apart ...

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explosion sounds

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My reality had become ...

- Food Restriction
- Over Exercising
  - Trying to hide "extra exercise" from family and friends.
- Bingeing
  - Binges triggered even more severe calorie cutting and exercise.
- Exhaustion
  - The combination of both calorie restriction and over-exercise triggered binges.

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More reality ...

- Insulin omission
- No one knew
- No one asked

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The Turning Point

- Accepting treatment.
- Surrendering to change.
- Embracing recovery.
- Long-term commitment to recovery.

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DiabetesSisters

Susan and Asha, Diabetes Sisters, 2017

Asha, Spring 2018

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What is Type 1 Diabetes?

- An auto-immune disease in which the immune system attacks itself, destroying the insulin secreting beta cells of the pancreas until they produce little to no insulin
- Treatment requires a fine balance of 24/7 monitoring of blood glucose and insulin (plus carb counting and a million other things!)
- Less than one-third of people living with Type 1 in the U.S. achieve target blood glucose levels (1)
- There is CURRENTLY no cure, just the lifeline of insulin

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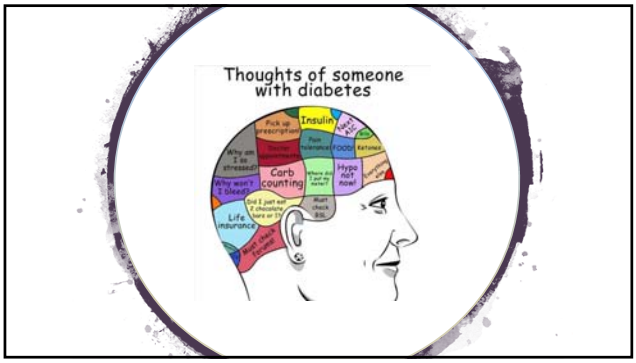

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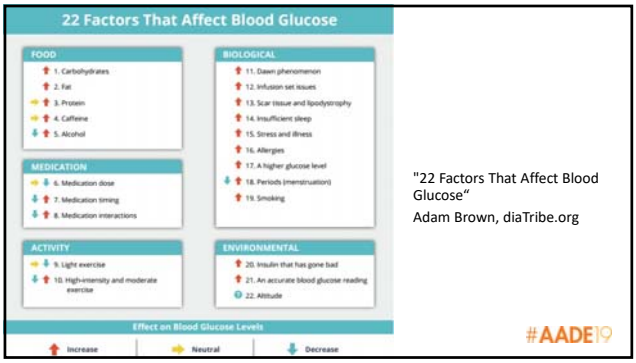

"22 Factors That Affect Blood Glucose"
Adam Brown, diaTribe.org

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Does Insulin Cause Weight Gain?

- Myth "Insulin makes me fat"
- Excess energy intake causes weight gain
- Synthetic insulin is more efficient than natural insulin which means people with Type 1 tend to be heavier than their non-diabetic peers by 4 to 13 lbs.[2]

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What Happens Without Insulin?

- DKA (diabetic ketoacidosis) - the body can't use sugar for fuel so it turns to alternative sources, like fat and muscle.
- As fat is broken down, acids called ketones begin building up in the blood and urine.
- High levels of ketones are poisonous and if left untreated can lead to coma or death.

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Insulin and Attitude

- I Increased attention to numbers: Carb counting, blood glucose levels
- N no access to a dietitian, CDE or health care professional
- S Satiety cues compromised
- U Understanding hunger cues
- L Label reading, menu planning, feeling deprived
- I Insulin attitude
- N Not listen to. Judgment from health care professionals

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What Constitutes an Eating Disorder?

- Anorexia Nervosa – Severe restriction of energy intake leading to excessive weight loss; fear of insulin can cause a person to limit or reduce eating to avoid needing insulin.
- Bulimia Nervosa - Recurrent episodes of binge eating with inappropriate compensatory behavior such as vomiting, excessive exercise and insulin omission.
- Binge Eating Disorder - Recurrent episodes of binge eating; though less common some will intentionally overdose insulin to justify binge eating.
- Purging Disorder – Normal eating patterns with recurrent inappropriate compensatory behavior, including insulin omission.

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Overeating vs Binge Eating Disorder (BED)

- Everyone occasionally overeats
- People with Binge Eating Disorder
- Often feel guilty or shame after eating.
- Marked distress over bingeing episodes.
- Loss of control over amount of eating.

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Overeating vs Binge Eating Disorder (BED)

- Three or more of the following symptoms must also occur for BED diagnosis:
  - Eating until feeling uncomfortably full
  - Eating more rapidly than normal (i.e. two hour period)
  - Feeling depressed, guilty, or disgusted with oneself after overeating
  - Eating alone because of embarrassment associated with how much one is eating
  - Eating large amounts of food when not feeling physically hungry

AN, BN, BED, Other Specified Feeding or Eating Disorder, Avoidant/Restrictive Food Intake DSM-5, Diagnostic Statistical Manual for Mental Disorders, May 2013

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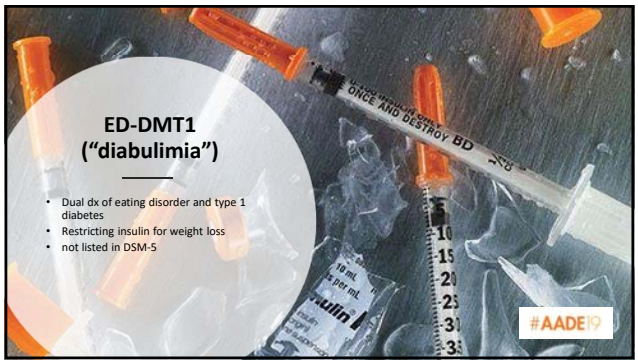

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ED-DMT1 is ...

- Restricting
- Restricting with purging
- Restricting with bingeing and purging
- Bingeing
- Self induced vomiting
- Laxative abuse
- Diuretic abuse
- Compulsive exercising

PLUS
the option of
WITHHOLDING
INSULIN

AN, BN, BED, Other Specified Feeding or Eating Disorder, Avoidant/Restrictive Food Intake DSM-5, Diagnostic Statistical Manual for Mental Disorders, May 2013

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What's the Secret?

- Studies show 30-40% of Type 1 young women engage in this life threatening behavior, as high as 50% [3]
- You may have innocently/accidentally discovered it for yourself and never recognized it for what it is
- It can happen to anyone
- It will kill you

30

T1Ds have an increased risk of developing an Eating Disorder

- Ongoing close monitoring of nutrition, exercise, blood glucose levels and insulin dosages may lead to obsessive thinking and unhealthy preoccupation with food and weight.
- Fear of going low, eating to prevent or correct, then feeling guilty about eating and fear that eating will lead to weight gain.
- "Insulin treatment often leads to increased hunger and weight gain."
- Role of parents or others (diabetes police) in managing diabetes (control).

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Increased risk for T1Ds (cont'd)

- Need for control (over food and/or weight when one can't control emotions or external situations).
- Use as a coping mechanism (emotional disassociation).
- Psychological issues associated with diagnosis and management of long-term illness (anger at diabetes).
- Onset of diabetes is often associated with weight loss that person with diabetes does not want to give up.
- Routine focus on weight at every hcp visit.

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ED Thought Process can be Exacerbated with Type 1 Diabetes Management

- Pressure of perfect BG readings = perfect body, perfect weight, perfect blood sugars, approval from MD, family and educators.
- High focus on numbers = obsession on weight, A1C, blood sugars, minutes of exercise, calories, grams of carbohydrate.
- High focus on food = "good" and "bad" foods, fear of eating anything sweet or "bad" in front of others.
- Hypoglycemia (low BGs) may trigger bingeing.

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"Eating disorders coupled with diabetes represent some of the most complex patient problems to treat - both medically and psychologically."

--- *Dr. Ann Goebel-Fabbri*

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"Tight Control" =
Perfectionism =
Eating Disorder

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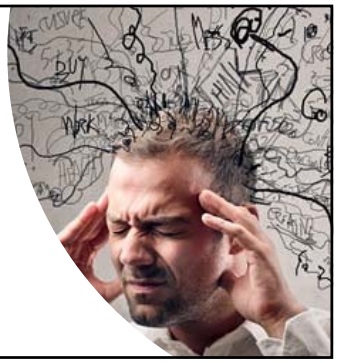
Contributing Factors

- Biology - genetics, metabolic disruption, neurochemical imbalance
- Psychology – co-morbid mental health disorders
- Social – trauma, social pressure, troubled relationships, media, diabetes history and education



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Ask the Right Questions

- How much of the day do you think about weight, body shape or size?
- What have you used to try to lose weight? (if first question affirmative)
- Do you ever feel you have out of control eating?
- Do you ever feel guilty about what you have eaten?
- Do you have a hard time figuring out how much insulin you need for your carbohydrates?
- Is it hard to give your insulin sometimes? Why?
- Do you give "partial" insulin doses because it is hard to give the full amount?

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Ask the Right Questions

- Do you give "partial" insulin doses because it is hard to give the full amount?
- Do you ever purposely skip insulin injections? How often?
- How often do you check your BG's? Do you ever skip the tests because you don't want to see the number?
- Do you check for ketones? When?
- Are there certain foods or food groups that you avoid? What are they?
- What are your thoughts when you have eaten "forbidden foods"?
- What do you do after you have eaten "forbidden foods"?

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Signs and symptoms

- Changes in eating habits (typically eating more but still losing weight).
- Rapid weight loss or weight gain.
- Low self-esteem or preoccupation with body image, weight or food intake.
- Frequent urination, excessive thirst or high glucose.

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Signs and symptoms

- Discomfort with eating or taking insulin in front of other people.
- Hoarding food.
- Unwillingness to follow through with medical appointments.
- Recurrent diabetic ketoacidosis (DKA).
- Low energy, fatigue, shakiness, irritability, confusion, anxiety or even fainting.

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What PWDs aren't telling you!

- "The more I eat, the higher my blood sugar will go, the more weight I will lose."
- "I know exactly how high I can bring my blood sugar levels without going into DKA or needing to be hospitalized."
- "I can function at blood sugar levels that others would normally be hospitalized for. I am invincible!"

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What PWDs aren't telling you!

- "Eating carbs before or after exercising defeats the purpose of the exercise."
- "If I'm following all of the rules that a 'good' person with diabetes follows, I'm also following all the rules that my eating disorder dictates."
- "My endocrinologist picked up on the fact that I was purposefully skipping my insulin, so I went to a different endocrinologist."

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So How Do We Effectively Manage ED-DMT1?

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Effective treatment of ED-DMT1 involves...

- Finding a balance between appropriate insulin intake and slow, gradual weight gain (if necessary).
- Closely monitoring the individual's progress and adjusting basal-to-carb and insulin-to-carb ratios as needed!
- Discuss POSITIVE approaches to thinking about your body.
- Continued therapy, potential medication for mood disorders.

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Challenges in Treatment of ED-DMT1

Rollercoaster BGs
High A1c
Constipation
Gastroparesis
Neuropathy
Chronic Pain
Depression
Anxiety
Fatigue
Distrust in Providers
Lack of Quality Support
Lack of Positive Example

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Recognizing Signs in a Loved One

- Not wanting to eat out or not wanting to eat with the family
- Eating in secrecy - finding empty bottles, wrappers, containers stashed or thrown away
- Noticeable change in how much a person is eating
- Eating a lot of junk food or food high in sugar
- Increased or new secrecy around their diabetes management
- Increased or new concern over their body size, shape or weight
- Excessive exercising, severe anxiety/panic if they cannot exercise
- Increased moodiness/depression

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"Key Factors" for ED-DMT1 Treatment

- Medical
  - Consistent diabetes care (testing schedule or CGM, plan for slow insulin reintroduction).
  - Control insulin edema by slow increase of insulin versus aiming for immediate in-range BGs.
  - Pain control.
  - Complications may increase with better diabetes care (specialist MDs for treatment).

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"Key Factors" (cont'd)

- Diabetes Education
  - Review, confront and change old diabetes "rules."
  - BG management before/during/after exercise.
- Nutrition
  - Practice carb counting with "real meals."
  - Meal plan based on treatment goals (adjustments made as often as needed).
  - Conquer the "good food" and "bad food" way of thinking.

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"Key Factors" (cont'd)

- Psychological
  - Struggles with diabetes acceptance.
  - Attempt to decrease/eliminate ED behaviors and symptom use.
  - DBT skills.
  - Consider checking BGs before each therapy session.
  - Stress management.
  - Medication management for co-occurring mood disorders.

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Ultimate Goals for Treatment

- PWDs find a balanced, healthy weight they can be happy with, without feeling compelled to abuse insulin.
  - Restore hunger scale to normal range.
  - Develop the ability to appropriately interpret and respond to physiological hunger.
- Decrease urges to restrict and/or binge.
- Help PWDs recognize when they are wanting to eat for reasons other than hunger.

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Ultimate Goals for Treatment (cont'd)

- Equip PWD with tools and strategies including introduction to coping skills.
- Diabetes Online Community (DOC)
  - Diabetes Sisters
  - Beyond Type 1
- In-person meetings & gatherings.
  - Local JDRF "Adults with T1D" meetings.

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We Are Diabetes Recovery Toolkit

wearediabetes.org/recoverytoolkit

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Final Thoughts

- This is a TEAM effort! Multiple providers are needed for the successful treatment of an individual with ED-DMT1.
- Trying to treat the diabetes without treating the eating disorder is like putting a band-aid on a bullet wound.
- Eating disorder treatment for PWD is a balacing act.

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Final Thoughts (cont'd)

- Eating disorders can occur at any age.
- It's okay to NOT have all the answers. Referring to other specialists is a much better solution than trying to manage or treat a condition outside of your realm of expertise.
- Don't assume the PWD needs more insulin if numbers are high. Ask more questions!
- Don't put so much focus on weight; focus more on overall health.

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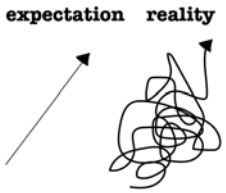
The Reality of Eating Disorder Recovery



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Practice Applications

1. If a person with type 1 diabetes exhibits signs of Diabetic Ketoacidosis (DKA possibly due to insulin omission), immediately contact their physician or direct for hospitalization.
2. If a person with type 1 diabetes is missing necessary blood glucose data without a reasonable explanation, politely ask them to check their blood glucose before leaving your office. (Keep blood glucose checking supplies on-hand).
3. If a person with type 1 diabetes is eating in secret, or exhibits behaviors associated with disordered eating, ask them about these changes. Offer a referral to a mental health professional who is familiar with eating disorders and type 1 diabetes.

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Questions

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