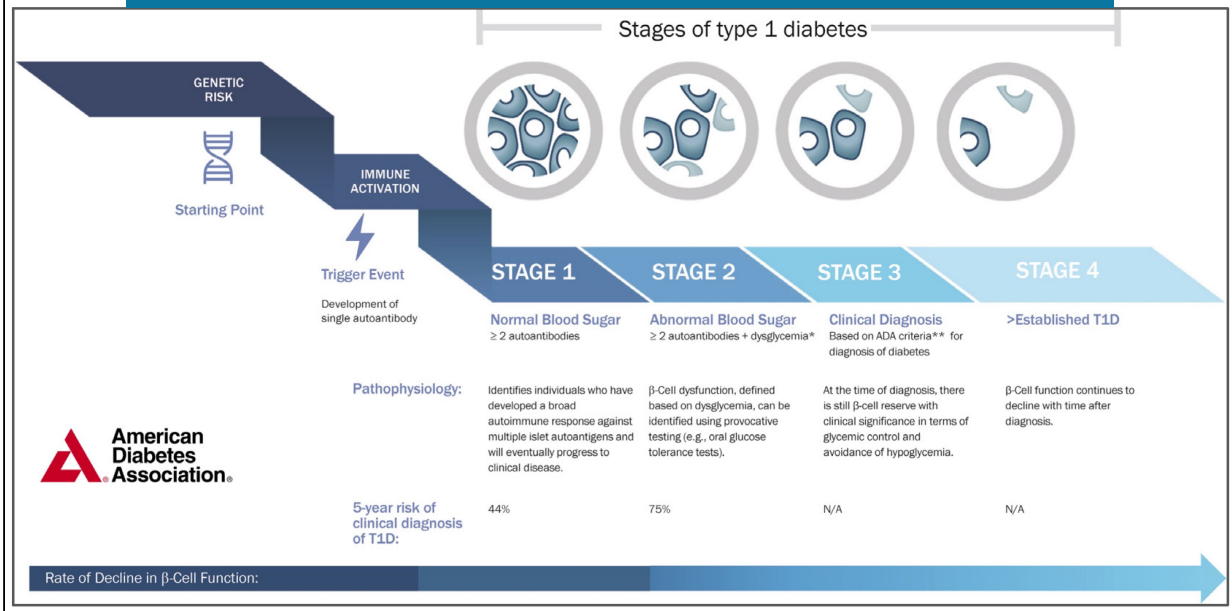

SWEETSPOT
Diabetes Peer Support

Today we're looking at where your Diabetes came from & How it developed.

We all have stories about our experiences. Some are easier than others to share. Feel free to only share what is comfortable for you - maybe nothing.

- Before we share our stories, I want you to know…
- I'd love you to know us better too. My story so far is that I am not burdened with Diabetes – currently. But more of a heart or concern for my husband & others carrying this burden. However, I have noticed that my A1c is creeping up with age. I'm trying to be alert to this & to my lifestyle – eating healthy foods – not too much – exercising regularly to build muscle – prioritizing sleep…
- Leszek: T1D since 28yo…
- Your turn to share your story about your diabetes, if you'd like to.

When did Your T1D Start? -Autoimmune Condition-



- T1D is one of many auto-immune conditions where your body attacks your own cells – in T1D it's the insulin producing Beta Islet cells in the Pancreas that are being attacked.
- Those with T1D have a Genetic risk
- There is a Triggering event – Environmental Trigger e.g. a season of high stress, a bad dose of flu', Covid… which sets off the development of autoantibodies which attack the Beta Cells.
- There are 5 Islet Autoantibodies related to T1D development.
- In Stage One, 2 autoantibodies can be detected in the blood. At this stage the BG is normal.
- As time progresses the number of autoantibodies increases, destroying more Beta cells. The BG rises due to too little insulin being produced. This is Stage 2
- At Stage 3 the BG is out of range and T1D is diagnosed. The person experiences excessive thirst, frequent urination, exhaustion & weight loss.
- From Stage 4 onwards the cells are further diminished and incapable of supplying needed insulin.
- BG will continue to rise – with the risk of DKA (Diabetic Ketoacidosis) – where fat is burned for energy as glucose cannot enter the cells, forming ketones (very acidic to the body) & very dangerous as ketone level increases!

Early testing of Autoantibodies for T1D:

- ***Essential early blood test for relatives:*** *Reveals* 2 or more islet autoantibodies associated with T1D, ***warning family years before diagnosis***:
  - Safe-guards individuals from diabetic ketoacidosis (DKA) – a dangerous complication of very low insulin.
  - Allows for use of disease-modifying therapies (DMTs) to delay the onset of T1D for nearly 3 yrs.

https://beyondtype1.org/different-stages-type-1-diabetes/

- **Research ongoing to delay progress to T1D diagnosis:**
  - Teplizumab (Tzield) - currently available
    - delays onset up to 3 years in early Stage 2.
    - the first drug in a string of other DMTs being researched.
  - Verapamil (old BP drug)
    - Has shown beta cell preservation in young, newly diagnosed T1D.

https://www.type1strong.org/blog-post/new-disease-modifying-therapies-that-delay-t1d-onset

- Because of the trauma of DKA, it is wise / essential to have early blood tests done on related family members to catch T1D development early.
- Once T1D is known as a future diagnosis, steps can be taken to delay the outcome by using DMTs.

LADA

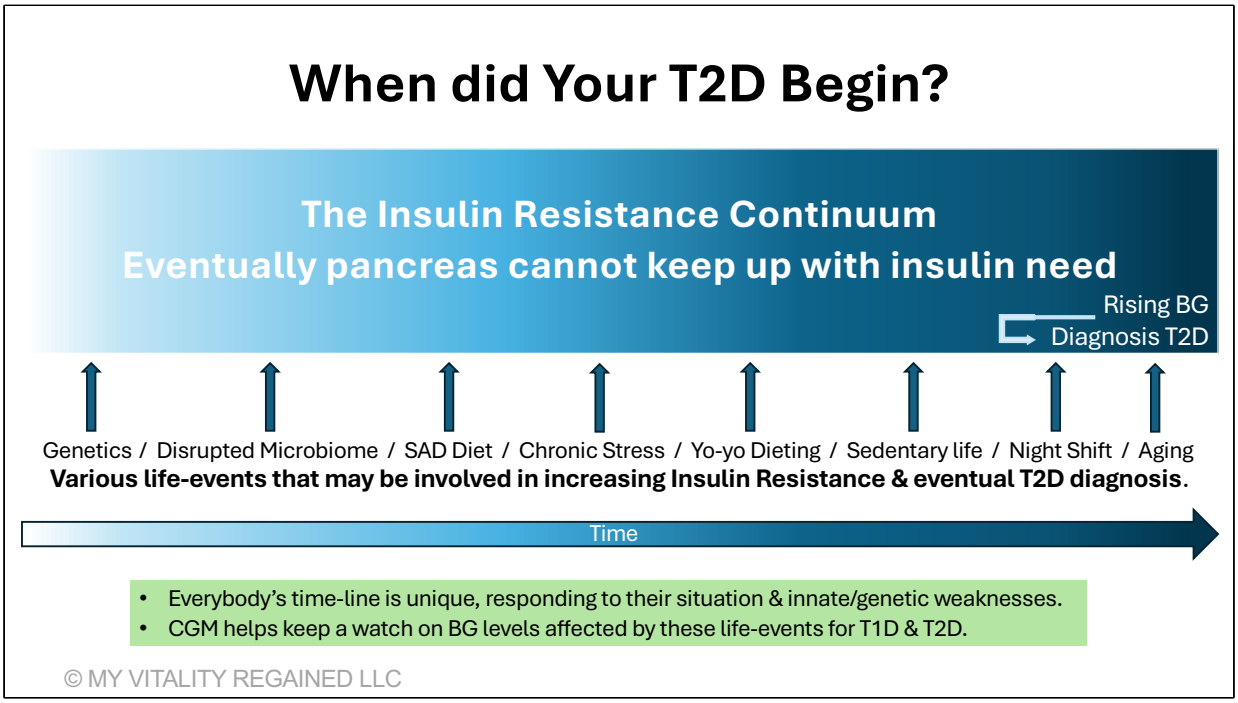
Latent Autoimmune Diabetes in Adults

- Develops later in life: 30 - 50 years old.
- Presents as T2D with elevated BG (hyperglycemia) - but not yet needing insulin.
- Autoimmunity develops slower than young adult-onset T1D.
- C-Peptide (bio-marker of insulin production) decreases as beta cells producing insulin are destroyed.
- Eventually needing insulin – Basal & Bolus – treated as T1D.

https://www.healthline.com/health/type-1-5-diabetes

https://diabetesjournals.org/diabetes/article/69/10/2037/16062/Management-of-Latent-Autoimmune-Diabetes-in-Adults

- C-Peptide is a biomarker of the amount of insulin produced.
- C-peptide is bound to each Insulin molecule in production within the cell & released into the blood stream –unbound- along with released insulin.



T2D develops in a totally different way:

- Various lifestyle practices plus genetics & aging have a combined effect of increasing Insulin Resistance (IR) usually diagnosed at an older age.
- IR starts building years before diagnosis & the pancreas compensates by releasing more insulin to combat the high BG..
- Eventually the pancreas cannot produce enough insulin to bring BG down to normal levels because the cells are so IR.
- T1D can develop IR too.
- T2D can benefit from watching BG closely with CGM.

When did Your T2D Begin?

Insulin resistance / metabolic syndrome: is unseen, developing slowly over time.

- ❖ Persistent high BG, from many disruptive factors (see below):
  - Results in more Insulin Resistance (IR) - cells resist the work of insulin & don't allow glucose in.
  - Increased insulin secretion to overcome IR
  - Eventually, the pancreas struggles to normalize BG levels, resulting in T2D diagnosis.

Influenced by many disruptive factors:

- ➢ **Epi-Genetics:** Your lifestyle, including what you eat influences how your genetics are expressed.
- ➢ **Age:** Insulin sensitivity decreases with age (most noticeable in women at menopause).
- ➢ **Disrupted microbiome:** Medications & Antibiotics (main contributor).
- ➢ **SAD Diet:** 'Tasty' (Hyperpalatable), highly processed foods **LOW** in protein, fiber & nutrients.
- ➢ **Yo-yo dieting:** Loss of muscle & increases fat mass – disruption of body composition.
- ➢ **Sedentary lifestyle:** Muscle loss (sarcopenia), loss of active metabolic tissue.
- ➢ **Chronic high stress & anxiety:** Increasing BG chronically.
- ➢ **Disrupted sleep & circadian rhythms:** e.g. night shift work – disruption of hormonal balance.

Muscle is the most important metabolic tissue we have.

- Work at maintaining muscle mass – gets harder as you age.
- Eat enough protein at each meal to maintain / grow muscle mass.
- Muscle activity burns glucose – so increase movement each day.

- ❖ **Gestational diabetes:** Forerunner of T2D later in life.
- ❖ **PCOS** (Poly Cystic Ovarian Syndrome): hormone disruption along with insulin resistance.
  - Now called Polyendocrine Metabolic Ovarian Syndrome (PMOS)

Where to From Here?

Seek out your SweetSpot – Discover what changes are best for you!

- Growth Mindset - Be open to changes & challenges.
- Seek friendship to support a positive outlook on life.
- Make a point of being grateful:
  - Express gratitude to friends / family / journal your gratitude.
- Set personal standards, then craft goals which move you closer to your **SweetSpot**.
- Embrace technology: CGM & Insulin Pump
  - data helps inform good decisions for your health.
- Embrace learning about all the advances in Diabetes treatments & management.
- SweetSpot is here to help!

Special Event!

Draft Calendar for this semester:

- **September 14** - Insulin Resistance & BG management.
- **October 12** - How, What, When should I Eat?
- **November 9** - Why does Lifestyle Matter?
- **December 14** - Keep Warm by Moving
- ***...And for those who are using an insulin pump, we'll be including content that will be informative for those with T1D or T2D.***

ZOOM OUT

Focus on Your Personal Standards

- Personal standards are like scaffolding that hold you in place during trying times.
- It's your identity, your values, your overall aim in life.

  e.g., to be strong & dependable; to face hardship / challenges bravely; to be trustworthy, dependable, reliable; someone who is ready to help/ serve others; generous, kind, loving…
- Standards declare who you know yourself to be – your inner motivation / your center.
- Dream big dreams – what you see in your mind's eye is what you can do / become.

➢You are NOT defined by your diabetes:

- Acknowledge that it's an extra burden you carry.
- Be resourceful & find ways to reach your SweetSpot.
- Dream none–the-less!

ZOOM IN

Visualize your future of wellness & vitality by:

- Prioritizing your health daily – focus on what is most important to you!
- Work out SMART goals to make **one** point of change a reality.
- Set doable **small goals** as guideposts along the way to reaching your best health.
- Establish **one small change** at a time, to work towards reaching a goal, step-by-step.
- Make **concrete plans** & seek out accountability with friends & family.
- **Be realistic** about possible failure or obstacles that get in the way – figure out a work-a-round; a different approach, a change of mindset.

Change is hard.
Share your plans with someone to keep you accountable
If you don't plan for change, it won't happen!
Assess your readiness for change. How much do you want to reach better health, longevity… your dream.

INTENTION OF YOUR GOAL
What is it you want to achieve?

Small STEPS TO ACHIEVE YOUR FINAL GOAL including Dealing with OBSTACLES
#1 – Break down your final goal into small doable action-steps or small goals.
#2 – Each small goal must have its own SMART goal worksheet.
3 – Use as many small goals as needed to reach the goal you want to achieve.
#4 - Figure out work-a-rounds ahead of time for any obstacles you can imagine.

SMART GOAL Worksheet Guide
SPECIFIC GOAL Who? What? Why? Where? When?
MEASURABLE SUCCESS How Much? How often? How many?
ATAINABLE Achievable? What? How?
RELEVANT Is it important to what you want to achieve ultimately?
TIME BOUND When? How long?

It is very important to formulate your intention carefully.
Make sure it is realistic under your circumstances.
Small doable actions help you to not be overwhelmed by the task.
Thinking about the obstacles is really important to plan an alternative path around it.