

PREVENTING DIABETES

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“The Sugar Lady”



PREVENTING DIABETES

WHAT WE'LL TALK ABOUT:

- What is Diabetes?
- Disease Continuum: Insulin Resistance, Prediabetes, Type 2 Diabetes, Neuropathy
- Prediabetes Risk Test
- Diabetes Prevention through Lifestyle
- Care for Diabetes and Neuropathy
- CDC Prevent T2 Program

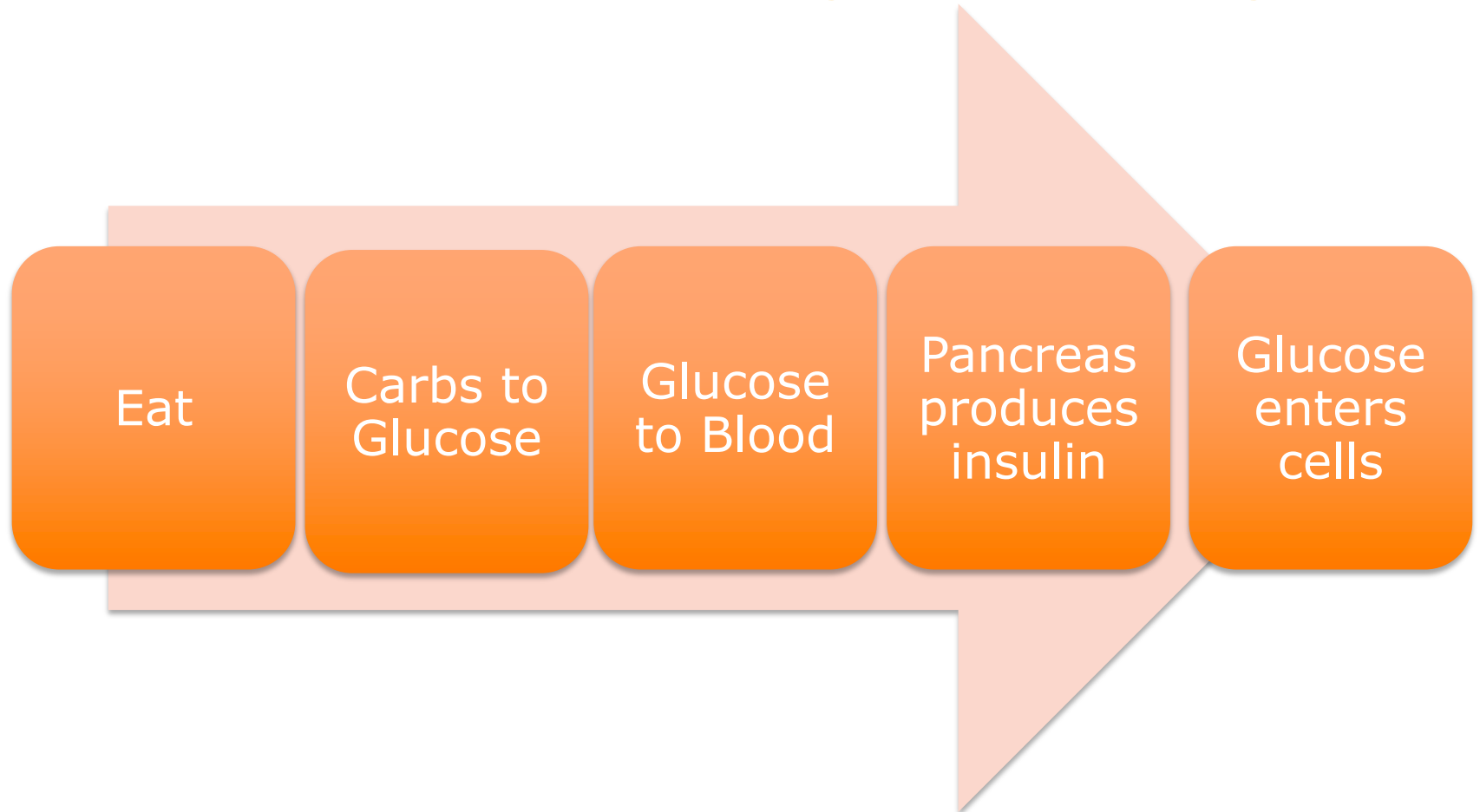


POLL

1. Do you know your A1C or fasting blood glucose numbers? Yes, or No
2. Can you prevent Type 2 diabetes with a healthy lifestyle? Yes, or No
3. Diabetes can cause blindness. True or False

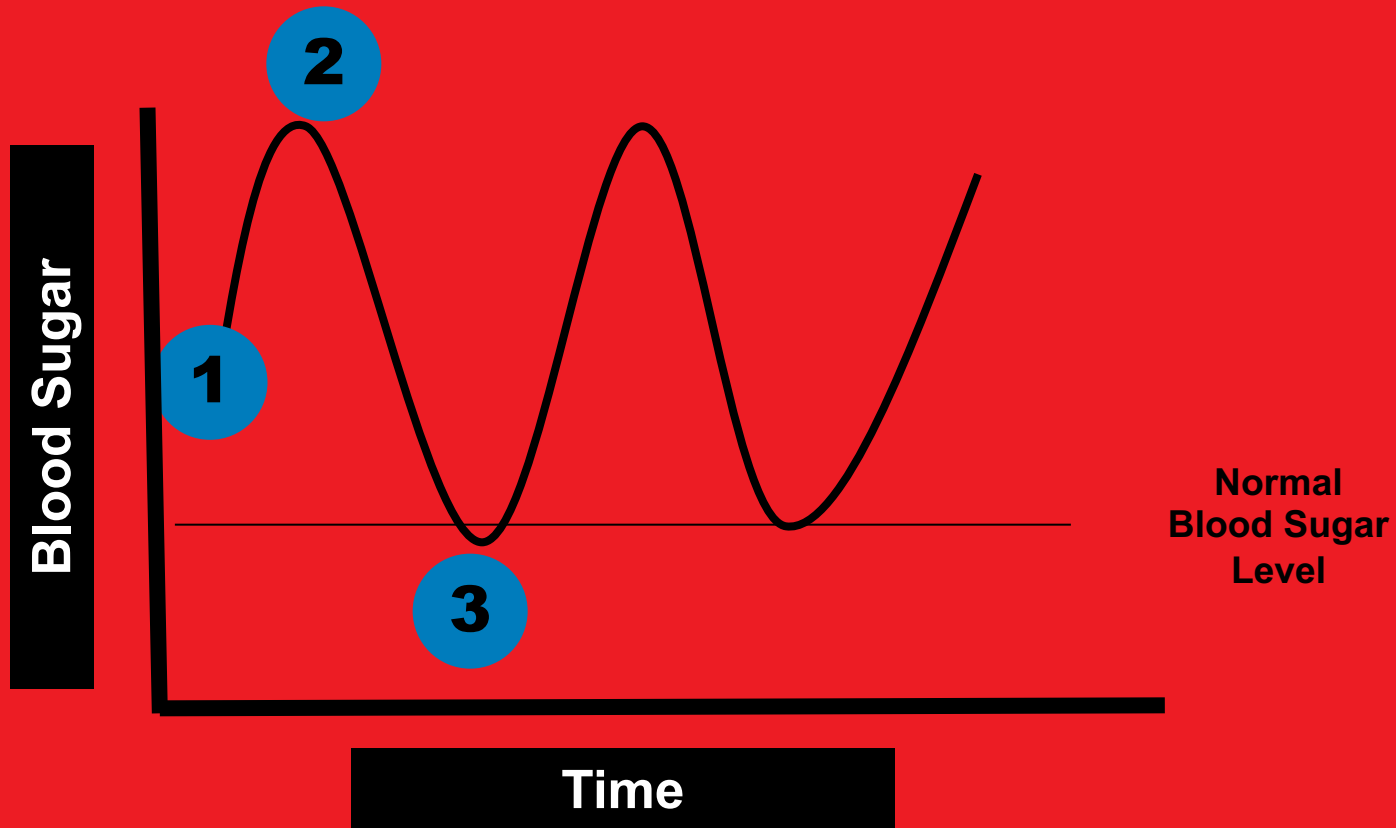
INSULIN (THE SCIENCE PART)

Naturally occurring hormone that regulates blood sugar levels and stores excess glucose for energy.

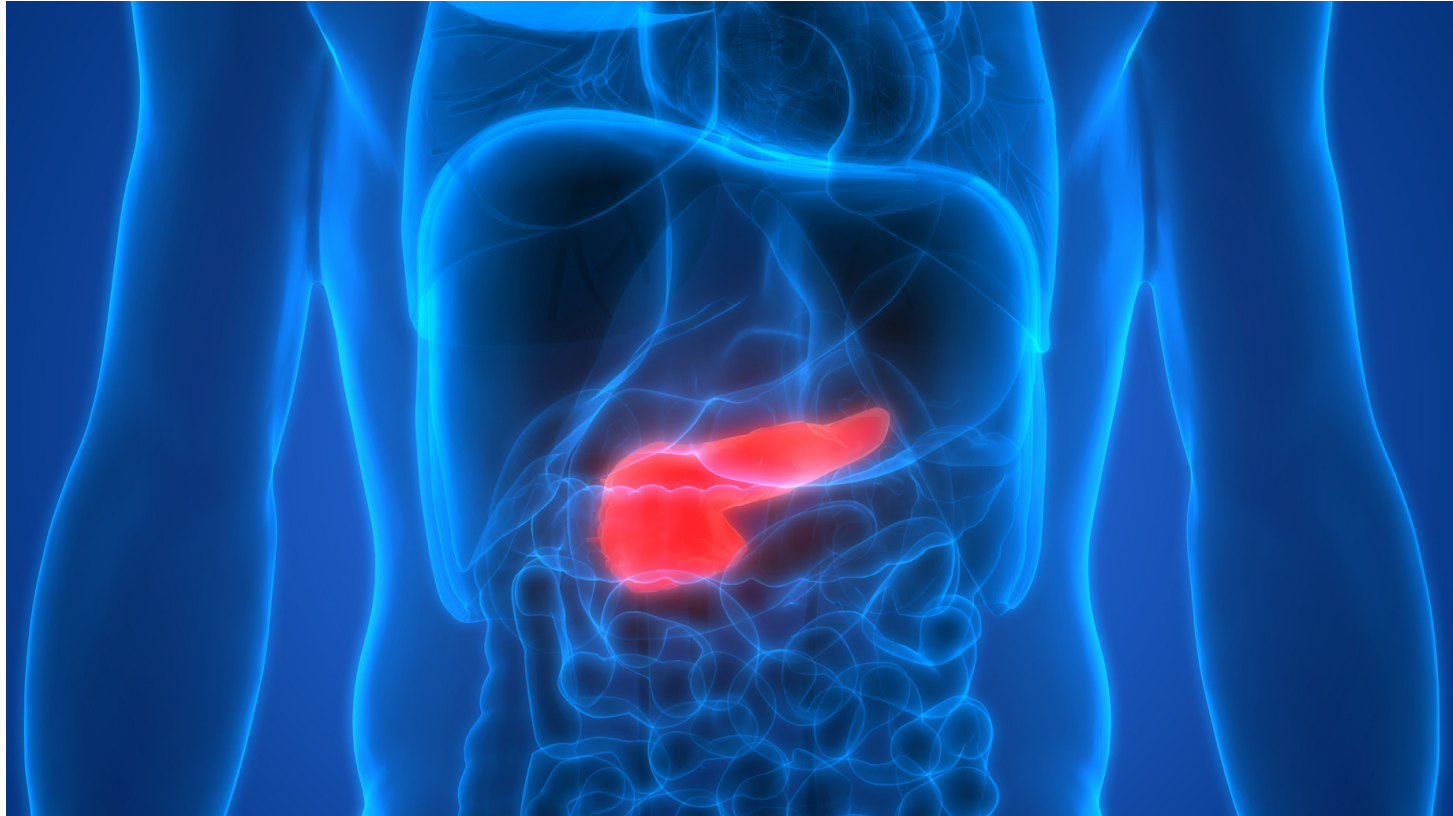


When you eat **sugar** it looks like this:

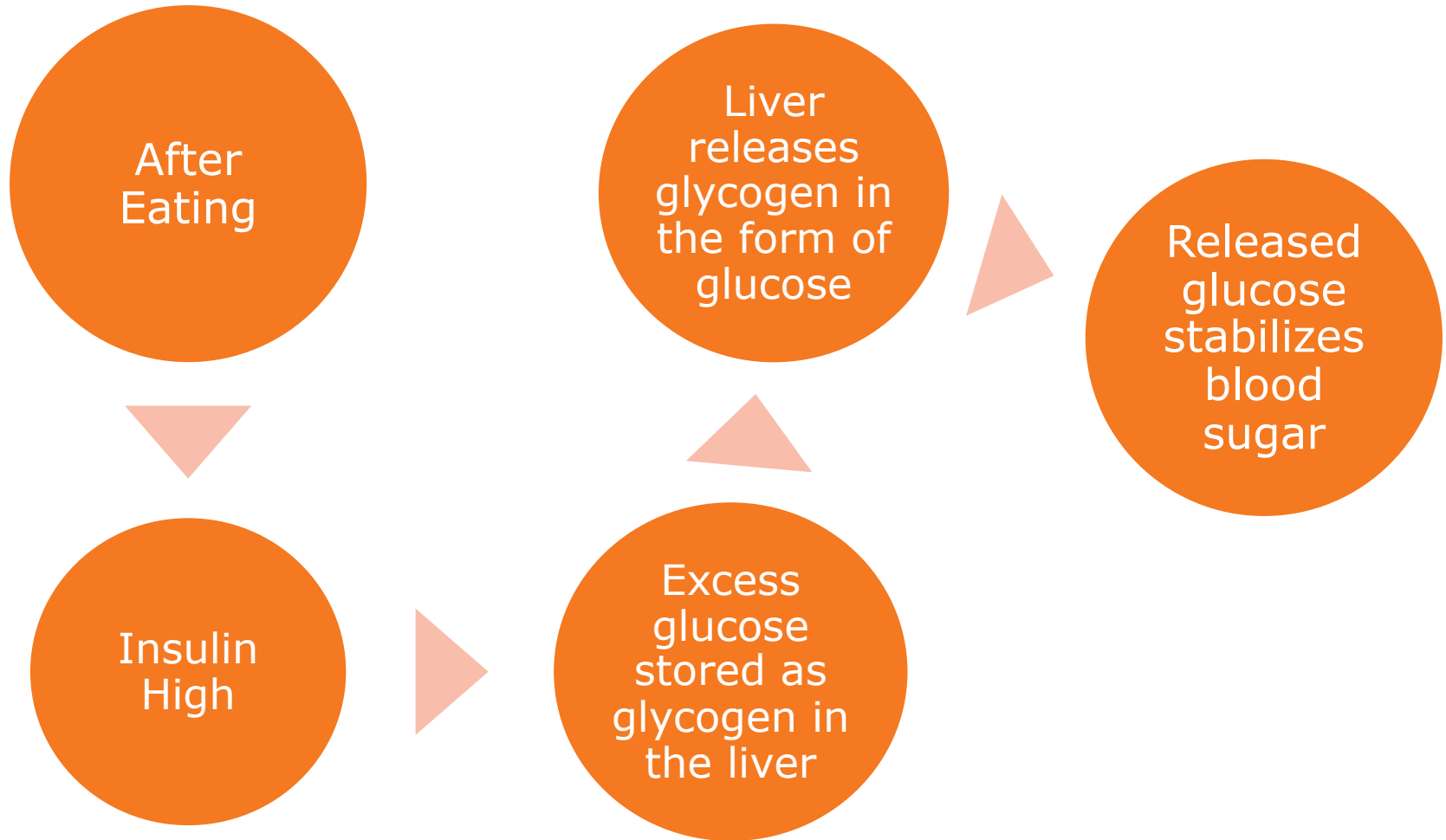
1. Your **blood sugar** (glucose) rises
2. Your **pancreas** releases the hormone **insulin**
3. Insulin brings your blood sugar down by transporting glucose to your cells for energy.



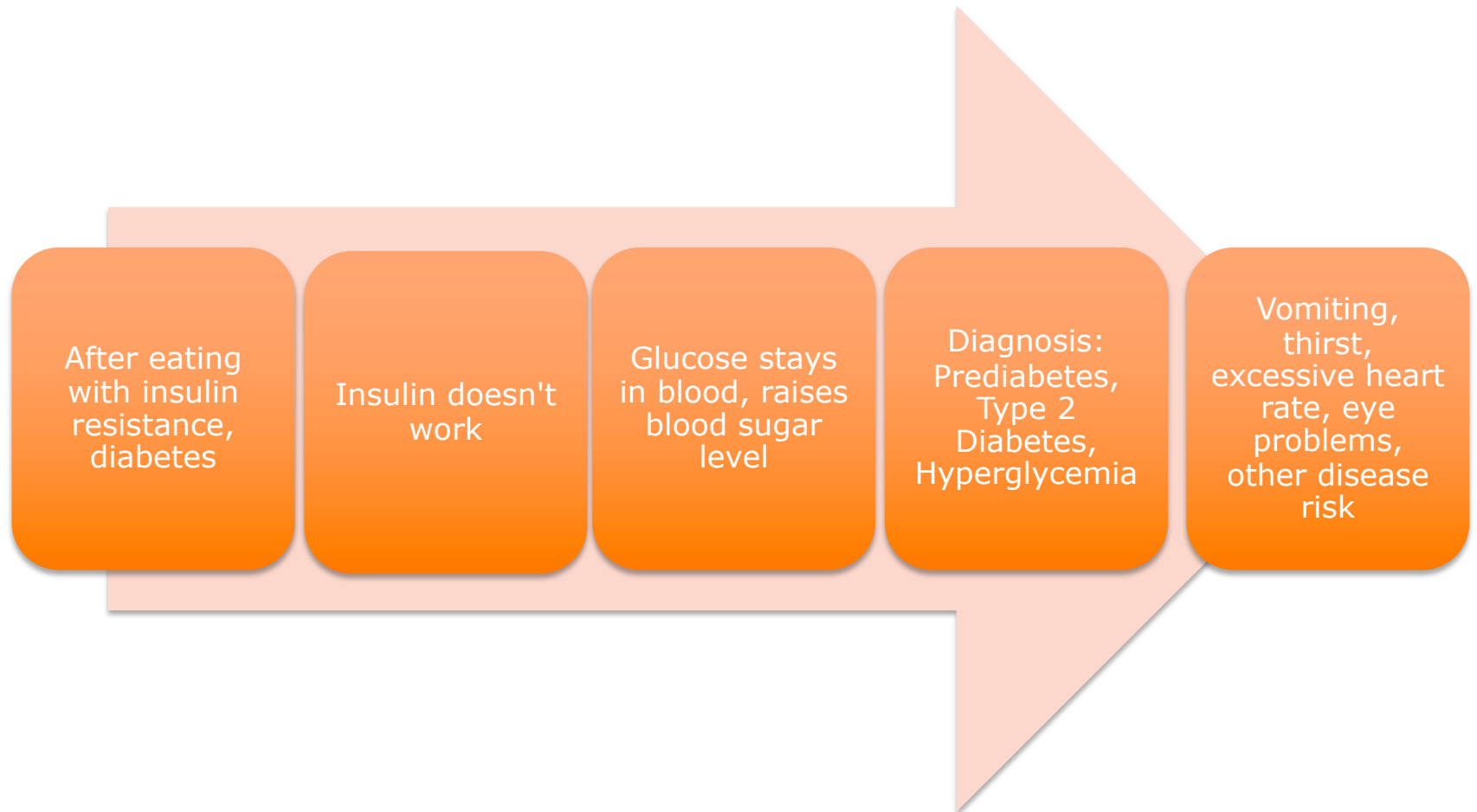
PANCREAS PRODUCES INSULIN



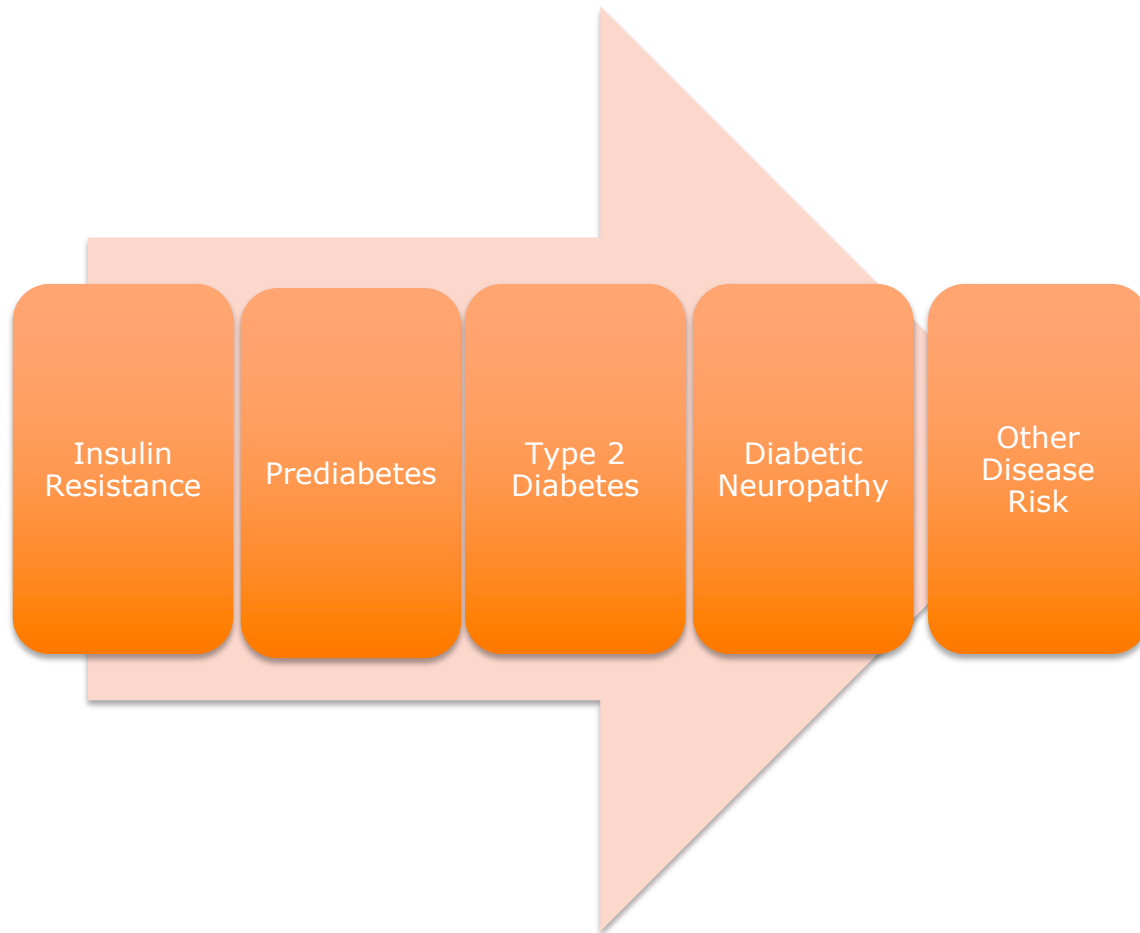
AFTER YOU EAT



AFTER YOU EAT / DIABETES



DIABETES DIS-EASE CONTINUUM



TEST FOR DIABETES / PREDIABETES?

Prediabetes (Impaired Glucose Tolerance):

- A1C 5.7% - 6.4%
- Fasting blood glucose 100 - 125

Type 2 Diabetes:

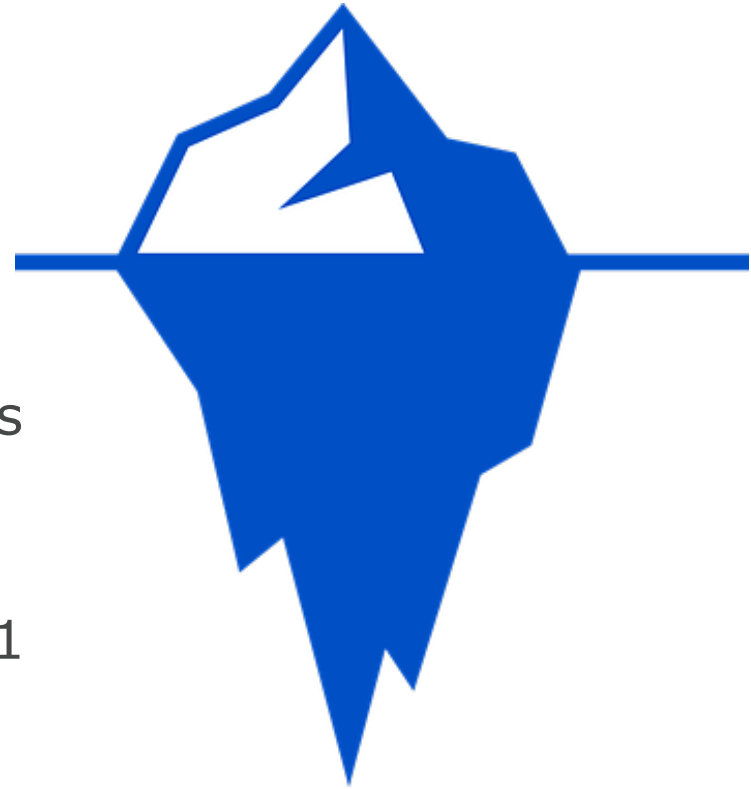
- Fasting blood glucose over 126
- A1C: 6.5% or above

SIGNS AND SYMPTOMS OF DIABETES

- Frequent urination
- Blurred vision
- Constant thirst
- Fatigue
- Frequent infections
- Cuts and bruises that heal slowly
- Tingling or numbness in hands or feet

DIABETES: AN EPIDEMIC

- 30,200,000 Americans **have** Type 2 Diabetes
- 86,000,000 Americans (38% of all adults) have prediabetes
- Progression to diabetes at rate of 10% per year, affecting 8.6 million
- Only 10% of people with prediabetes know they have it
- 1 in 6 people with disabilities (16.7%) has diabetes compared to 1 in 14 (7.4%) people without disabilities.
- Healthcare costs 230% higher for people with diabetes





**BY 2050, 1 OUT OF EVERY 3 AMERICAN'S WILL HAVE
TYPE 2 DIABETES.**

Source: Centers for Disease Control and Prevention

Mary Ellen Zung, Health Coach

WHO IS AT RISK FOR DEVELOPING TYPE 2 DIABETES?

- Have prediabetes
- Are overweight
- Are 45 years or older (even greater over 65)
- Have a parent or sibling with type 2 diabetes
- Are physically active less than 3 times per week
- Have ever had diabetes while pregnant (gestational diabetes) or given birth to a baby who weighed more than 9 pounds
- Are African American, Hispanic/Latino American, American Indian, or Alaska Native (some Pacific Islanders and Asian Americans are also at higher risk)

Prediabetes Risk Test

1. How old are you?

- Younger than 40 years (0 points)
- 40–49 years (1 point)
- 50–59 years (2 points)
- 60 years or older (3 points)

Write your score in the boxes below

2. Are you a man or a woman?

- Man (1 point)
- Woman (0 points)

3. If you are a woman, have you ever been diagnosed with gestational diabetes?

- Yes (1 point)
- No (0 points)

4. Do you have a mother, father, sister, or brother with diabetes?

- Yes (1 point)
- No (0 points)

5. Have you ever been diagnosed with high blood pressure?

- Yes (1 point)
- No (0 points)

6. Are you physically active?

- Yes (0 points)
- No (1 point)

7. What is your weight category?

(See chart at right)

Height	Weight (lbs.)		
4'10"	119-142	143-190	191+
4'11"	124-147	148-197	198+
5'0"	128-152	153-203	204+
5'1"	132-157	158-210	211+
5'2"	136-163	164-217	218+
5'3"	141-168	169-224	225+
5'4"	145-173	174-231	232+
5'5"	150-179	180-239	240+
5'6"	155-185	186-246	247+
5'7"	159-190	191-254	255+
5'8"	164-196	197-261	262+
5'9"	169-202	203-269	270+
5'10"	174-208	209-277	278+
5'11"	179-214	215-285	286+
6'0"	184-220	221-293	294+
6'1"	189-226	227-301	302+
6'2"	194-232	233-310	311+
6'3"	200-239	240-318	319+
6'4"	205-245	246-327	328+
	1 Point	2 Points	3 Points
	You weigh less than the 1 Point column (0 points)		

Total score:

TAKE THE ON-LINE PREDIABETES TEST



<https://www.cdc.gov/prediabetes/takethetest/>

If you scored 5 or higher...

- You are at increased risk for having prediabetes and are at high risk for type 2 diabetes.
- Talk to your doctor to see if additional testing is needed.

WHY TO AVOID DIABETES

- Primary cause of adult onset blindness
- Lower leg amputation
- Blindness
- Kidney disease
- Heart failure
- Stroke
- Alzheimer's Disease
- Sixth leading cause of death in NJ
- 10 year shorter life expectancy

NEUROPATHY

Motor nerves:

- Difficulty moving arms or legs
- Muscle spasms or twitching
- Decreased reflexes

Sensory nerves:

- Might have sensitivity to touch, or decreased sensation
- Inability to feel temperature changes or pain with hot and cold
- Loss of reflexes and coordination

Autonomic nerves:

- Nausea
- Vomiting
- Dizziness
- Excessive sweating
- Bowl function
- Irregular heart rate
- Difficulty swallowing

IT'S PREVENTABLE! WHAT YOU CAN DO ABOUT IT



Mary Ellen Zung, Health Coach

MOVIE TIME!

COMMIT TO
INCLUSION 



Mary Ellen Zung, Health Coach

NUTRITION

- Eat 5-9 servings of fruits and vegetables
- Green leafy vegetables daily
- Limit added sugar (including sugary drinks)
- Limit saturated fat
- Limit alcohol
- Eat healthy fats: nuts, seeds, avocado, wild fish, olive oil
- Portion control



SUGAR IS IN EVERYTHING (ALMOST)

Salad Dressing

Cakes **Yogurt** **Crackers**

Cereals **Ketchup**

Sauces **BBQ sauce** **Soda**

Cookies **Cough Syrup**

Energy Bars

Snack foods **Fruit Juice**

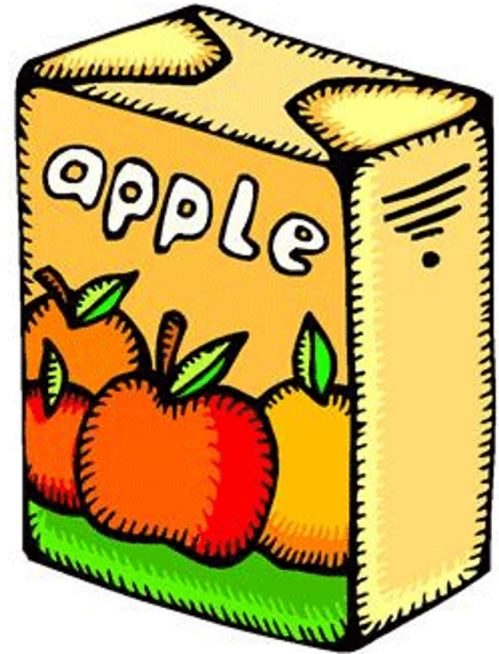
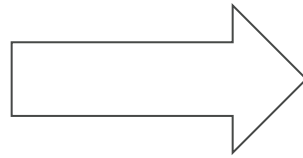
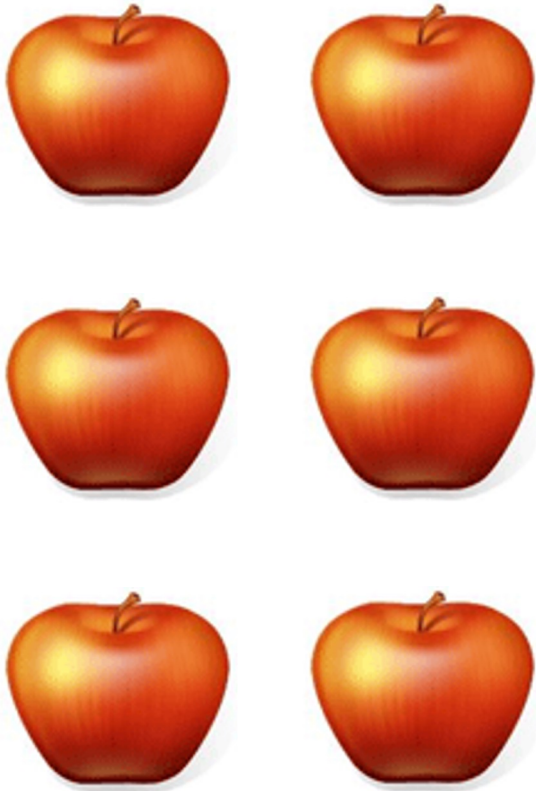
Potato Salad **Ice Cream**

60 Names for Sugar

Agave nectar*	Caramel*	Dextrose	Galactose	Lactose	Raw sugar*
Barbados sugar*	Carob syrup*	Diastatic malt	Glucose	Maltodextrin	Refiner's syrup*
Barley malt	Castor sugar*	Diatase	Glucose solids	Malt syrup	Rice syrup
Beet sugar*	Confectioner's sugar*	Ethyl maltol	Golden sugar*	Maltose	Sorbitol
Blackstrap molasses*	Corn syrup	Evaporated cane juice*	Golden syrup*	Mannitol	Sorghum syrup*
Brown rice syrup*	Corn syrup solids	Florida Crystals*	Grape sugar*	Maple syrup*	Sucrose*
Brown sugar*	Date sugar*	Free flowing brown sugars*	HFCS*	Molasses*	Sugar (granulated)*
Buttered syrup*	Dehydrated cane juice*	Fructose*	Honey*	Muscovado*	Treacle*
Cane juice crystals*	Demerara sugar*	Fruit juice*	Icing sugar*	Organic raw sugar*	Turbinado sugar*
Cane sugar* <small>Mary Ellen Zung, Health Coach</small>	Dextran	Fruit juice concentrate*	Invert sugar*	Panocha*	Yellow sugar*

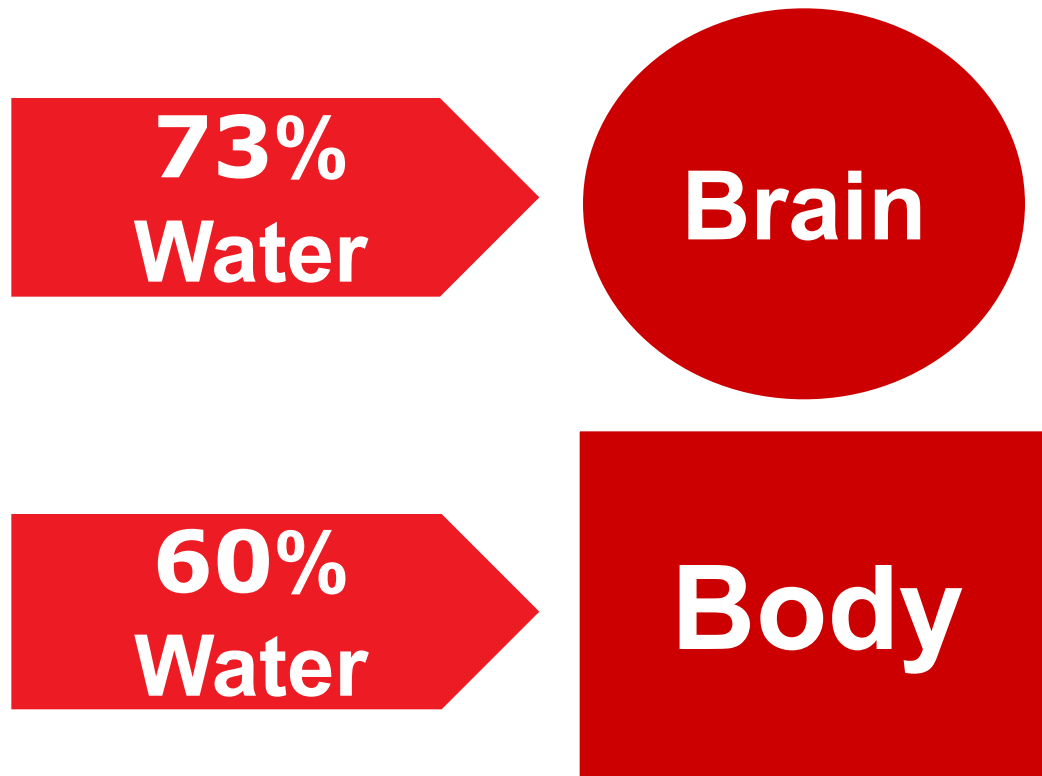
WHAT ABOUT FRUIT?

YES, ONLY IF IT'S WHOLE FRUIT



DRINK MORE (WATER, THAT IS)

And don't drink your calories...
(unless they're green juices or smoothies)!



EXERCISE/ ACTIVITY

- Do what you enjoy!
- DPP/AMA/CDC: 150 minutes moderate intensity activity per week
- Combination of Strength, Cardio, Stretch
- Move throughout the day



EXERCISE BENEFITS

- Stabilizes blood sugar
- Strengthens bones and muscles
- Lowers blood pressure
- Lowers stress hormones
- Increases dopamine; the feel good hormone
- Prevention of certain diseases and cancers
- Lower risk of heart disease and stroke
- Weight loss, and weight maintenance



DEEP BREATHING AND MEDITATION FOR STRESS REDUCTION

- Stress raises blood glucose levels, and can lead to poor lifestyle choices.
- Deep breathing and meditation lowers blood pressure, slows heart rate, changes brain waves for a more relaxed state.
- Meditation helps with coping skills, greater self awareness, better relationships, improved focus, less depression and anxiety.



BREATHING EXERCISE



SLEEP

- Experts agree 7-8 hours per night
- Set a regular bed-time and stick to it
- Dark, Cool room
- Wind-down routine
- Don't eat or exercise close to bedtime
- No blue light



DIABETES CARE

- Annual physical
- Have your kidneys checked annually
- Annual eye exam
- Hearing check
- Visit doctor every 3 months for blood glucose test; or every 6 months if meeting goals
- Get feet checked every 6 months
- Monitor blood pressure regularly
- Monitor blood sugar level every day
- Take diabetes medications as instructed
- Ask friends and family for help if you need it

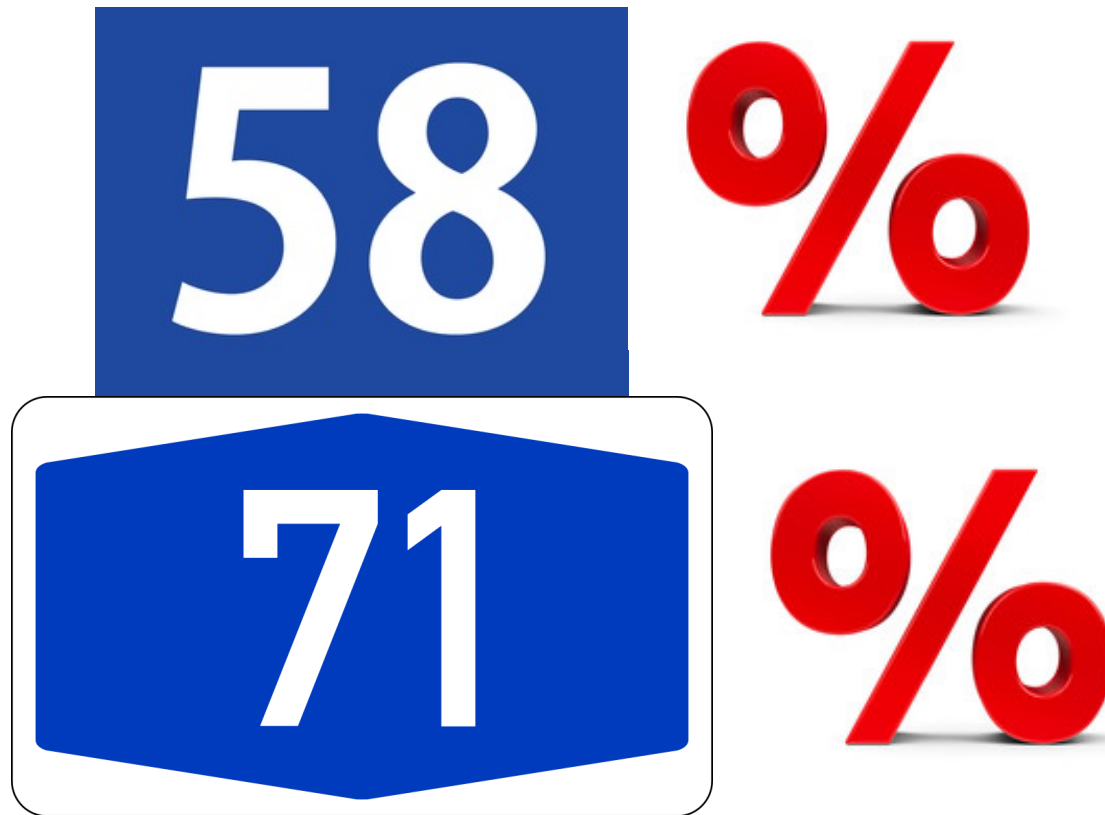
<http://committoinclusion.org/diabetes-management-for-self-advocates/>

NEUROPATHY CARE

- Keep blood sugar levels in normal range
- Get regular exercise
- Quit smoking
- Maintain a regular sleep schedule
- Maintain a healthy weight (or lose weight)
- Foot care: Inspect your feet daily
- Therapeutic shoes
- Safety measures for loss of sensation
- Hot and or cold compresses
- Warm bath
- Massage
- Turmeric
- Vitamin B, D
- Cayenne pepper; capsaicin
- Essential Oils; lavender
- Meditation, lower stress, coping skills
- Acupuncture

PREVENTION WORKS

Lifestyle intervention programs like the **CDC's Prevent T2 Program** have been shown to **reduce** the number of new cases of Type 2 diabetes by 58%, and 71% among individuals age 60 and over.



PREVENT T2 AND PREVENT T2 FOR ALL: DIABETES PREVENTION PROGRAM

- A one-year program: 26 sessions; 16 sessions in the first 6 months, every week; then 4 sessions bi-weekly, then sessions 21-26 in the second 6 months; one per month.
- Supportive environment in a small group setting
- Evidence based program curriculum
- Costs vary due to location and funding.
- Program lead by trained Lifestyle Coach
- <https://www.cdc.gov/diabetes/prevention/lifestyle-program>



PREVENT T2 PROGRAM DETAILS

Program Qualifications

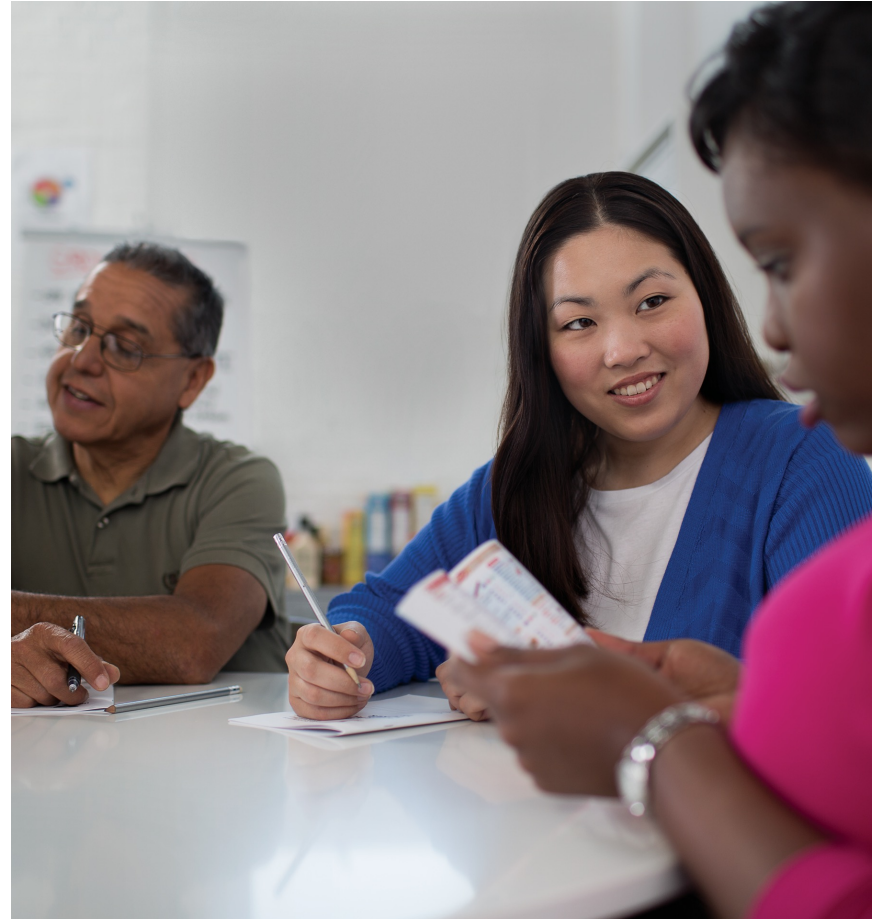
- At least 18 years old
- Overweight (BMI > 25), and
- Pre-diabetes confirmed via one of 3 blood tests or previous diagnosis of gestational diabetes
- If no blood test, a qualifying score on a risk assessment

Program Goals

- Reduce body weight by 5% or lose at least 4% of starting weight and log 150 minutes of activity per week.
- Lower A1C by 0.2%

PREVENT T2 GROUP SESSIONS

- In person and Virtual On-Line
- 1 Hour meeting
- Discuss healthy topics including nutrition and weight loss
- Problem solve challenges
- Participant Notebook
- Food and Activity Tracker
- Action Planning Log
- Weigh-In



PREVENT T2 CURRICULUM

Introduction to the Program

Get Active To Prevent Type 2

Track Your Activity

Eat Well To Prevent Type 2

Track Your Food

Get More Active

Energy In, Energy Out

Shop and Cook To Prevent Type 2

Manage Stress

Find Time for Physical Activity

Managing Triggers

Keep Your Heart Healthy

Take Charge of Your Thoughts

Get Support

Eat Well Away From Home

Stay Motivated To Prevent Type 2

When Weight Loss Stalls

Take a Movement Break

Stay Active to Prevent Type 2

Stay Active Away From Home

More About Type 2

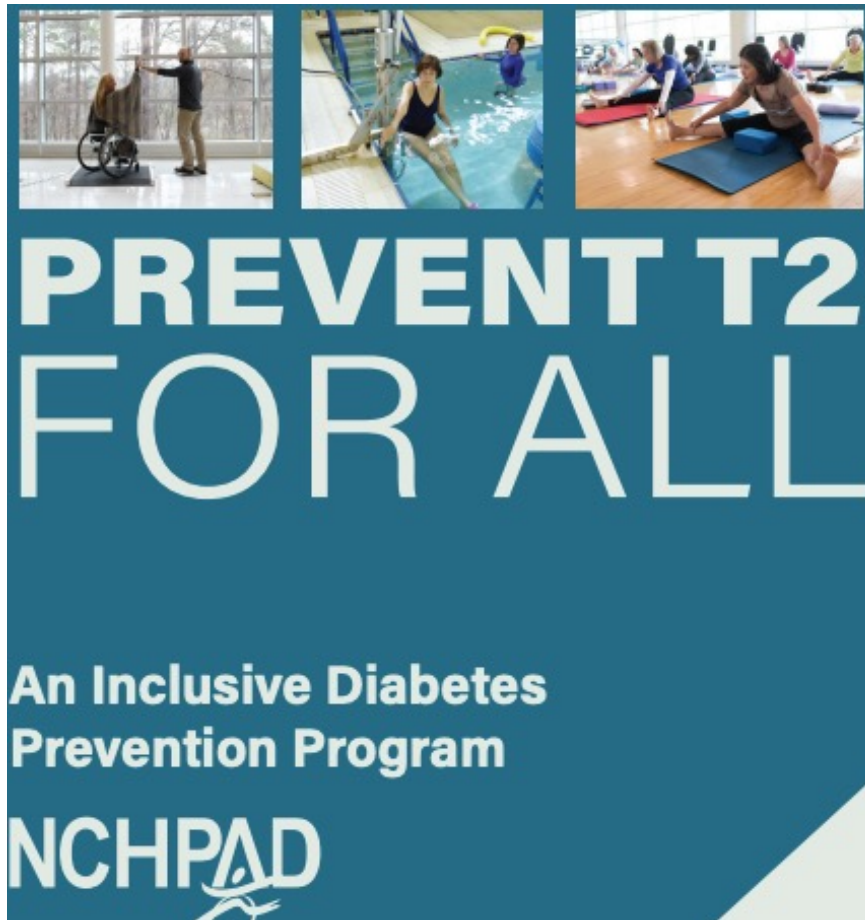
More about Carbs

Eating To support Your Health Goals

PREVENT TYPE 2 FOR ALL

- The aim of *Prevent T2 for All* is to improve access to lifestyle change programs for people with disabilities. Over a 12-month period, adults who have been diagnosed with prediabetes learn how to achieve modest weight loss, increase physical activity, and make other lifestyle changes to prevent or delay type 2 diabetes.

SPECIAL OLYMPICS AND DIABETES PREVENTION WITH T2 FOR ALL



“People with intellectual disabilities (ID) receive fewer diabetes exams and less diabetes care than those without disabilities and the prevalence of diabetes among people with ID is 1.5 times ² the rate of the general population. Type 2 diabetes is preventable and the disparity for people with ID can be addressed. At Special Olympics, we are working towards inclusive health for all by eliminating these health disparities through our fitness and wellness programming.”

Alicia Bazzano, MD, PhD, MPH
Special Olympics Chief Health Officer

RESOURCES FOR PREVENT T2

CDC – Find a Program:

<https://www.cdc.gov/diabetes/prevention/find-a-program.html>

CDC Diabetes Prevention Program:

<https://www.cdc.gov/diabetes/prevention/index.html>

CDC Disabilities and Diabetes:

<https://www.cdc.gov/ncbddd/disabilityandhealth/features/disability-and-diabetes-prevention.html#:~:text=The%20aim%20of%20Prevent%20T2,or%20delay%20type%202%20diabetes.>



<https://www.nchpad.org/1678/6780/Prevent~T2~for~All>

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