



Preventing Type 2 Diabetes Take Control with a Lifestyle Reset

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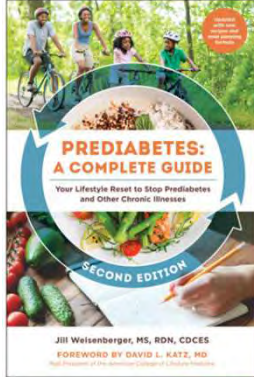

**STILLY VALLEY
HEALTH CONNECTIONS**
PUBLIC HOSPITAL DISTRICT #3, SNOHOMISH COUNTY



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Welcome


- ▶ This is a 12-month program
 - ▶ We will meet on the first Monday of the month in 2025 from 6:00-7:00 pm
- ▶ This webinar is based on the material from
 - ▶ Prediabetes: A Complete Guide - 2nd Edition
- ▶ Each week will include a lesson and activities that build on material from previous classes.
 - ▶ Today we are covering Chapters 1 & 2 in the book
- ▶ We are running this class as a webinar, so I cannot see or hear you.
- ▶ You can engage with each other via chat or with me via Q&A.


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Prediabetes: What it is and Why it Matters

PREDIABETES




98
Million



More than 8 in 10
adults with prediabetes
don't know they have it

About 98 million American adults—**more than 1 in 3**—have prediabetes


- ▶ Without changes, 37% of those with prediabetes will likely progress to type 2 diabetes in 4 years, and most will have the diagnosis in 10 years.
- ▶ Prediabetes is also associated with an increased risk for heart disease, and some forms of cancer.
- ▶ There are often no signs or symptoms.



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COST


\$413 Billion
Total medical costs & lost work & wages for people with diagnosed diabetes




Medical costs for people with diabetes are **more than twice as high** as for people without diabetes

RISKS


People who have diabetes are at **higher risk of serious health complications**:




Blindness




Kidney failure




Heart disease



Stroke



Loss of toes, feet, or legs




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Diagnosing Prediabetes

With prediabetes, your blood sugar level is higher than normal, but lower than the level of diabetes.

Blood Sugar = Blood Glucose


- (See CHART on p 6)



THE ROAD TO TYPE 2 DIABETES

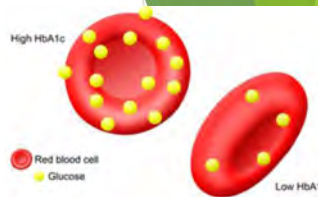
	A1C TEST	FASTING BLOOD SUGAR TEST	GLUCOSE TOLERANCE TEST
DIABETES	6.5% or above	126 mg/dL or above	200 mg/dL or above
PREDIABETES	5.7 - 6.4%	100-125 mg/dL	140-199 mg/dL
NORMAL	Below 5.7%	99 mg/dL or below	140 mg/dL or below

Source: American Diabetes Association




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Diabetes Terminology




- Hemoglobin A1C (A1C)
 - 3 month average blood glucose levels
 - Measures amount of hemoglobin coated with Glucose
 - 5.7% - 6.4% Suggests Prediabetes
- Impaired Fasting Glucose (IFG)
 - When blood glucose falls between 100-125 mg/dL suggests Prediabetes
- Impaired Glucose Tolerance (IGT)
 - 2-hour oral glucose tolerance test (OGTT)
 - When between 140-199 mg/dL, suggests Prediabetes



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Type 1 Diabetes vs. Type 2 Diabetes

- Type 1: An autoimmune disease affecting 5-10% of Americans
 - Causes damage to the pancreas.
 - Pancreas produces little to no insulin.
 - Insulin is required via injection or an insulin pump.
 - Most often diagnosed in children and young adults.
- Type 2:
 - The body produces insulin, but loses sensitivity.
 - Pancreas increases insulin production to maintain blood glucose balance.
 - Over time, the pancreas cannot keep up with the need for insulin.
 - Not enough insulin can be produced to lower blood sugar levels.
 - Blood glucose levels rise.



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Risk Factors for T2DM

- Those You Can't Control
 - Age (begin screening at 45 years)
 - Sex (men have a higher risk than women)
 - Race / Ethnicity
 - Family History
 - Gestational Diabetes
 - Polycystic Ovary Syndrome
- Those You Can Control
 - Overweight and Obesity (BMI > 25)
 - Inactivity
 - High Blood Pressure (> 120/80)
 - High triglyceride levels
 - Low HDL cholesterol ("good" cholesterol)
 - Heart disease and blood vessel problems
 - Sleep deprivation (<7-8 hours)
 - Smoking


Are you at risk for type 2 diabetes?

QUESTION	YES	NO	POINTS
1. How old are you?	45 or older	Under 45	10
2. Are you a woman?	Yes	No	5
3. Do you have a mother, father, sibling or brother with diabetes?	Yes	No	10
4. Have you ever been diagnosed with high blood pressure?	Yes	No	5
5. Are you physically active?	Yes	No	5
6. What is your weight category?	Overweight or obese	Normal weight	10

If your score is 6 or higher:

You are at increased risk for having Type 2 diabetes. Please consult your doctor for an OGTT. If you are at high risk, your doctor may recommend a combination of lifestyle changes, such as diet and exercise, and medication to help lower your blood sugar levels. For more information, visit www.diabetes.org/risk-test.

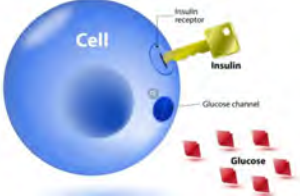
American Diabetes Association



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Understanding Insulin

IMPORTANCE OF INSULIN



The diagram shows a blue cell with an insulin receptor on its surface. A yellow insulin molecule is shown binding to the receptor. A glucose channel is also shown on the cell surface, with red glucose molecules entering the cell.

- ▶ Normally
 - ▶ After eating, glucose enters the bloodstream.
 - ▶ Insulin is then released from the pancreas (Beta cells).
 - ▶ Insulin allows glucose to enter the cells of your body.
 - ▶ Once inside the cells, glucose can be used for energy or stored for later use.
- ▶ Insulin Resistance
 - ▶ Liver, muscle, and fat cells do not react properly to insulin.
 - ▶ Pancreas increases more insulin.
 - ▶ Glucose remains "locked" outside the cells.
 - ▶ Blood glucose levels rise.
 - ▶ Eventually, a progressive loss of insulin production occurs.
 - ▶ Often few signs or symptoms are noticed.
 - ▶ Nerve pain or eye problems.

SOUND DIETITIANS

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Other Effects of Insulin Resistance

Insulin resistance, increased insulin levels and insufficient insulin production are also associated with other health problems:

- ▶ Fatty liver
- ▶ Blood vessel dysfunction
- ▶ High blood pressure
- ▶ Low HDL cholesterol levels
- ▶ Elevated triglyceride levels
- ▶ Chronic inflammation
- ▶ Increased blood clotting

The steps you take to prevent type 2 diabetes can also help you to prevent other problems, like heart disease as well.

SOUND DIETITIANS

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The Good News

- ▶ You can slow, and even halt the progression of prediabetes.
- ▶ Your actions can boost insulin sensitivity, and protect insulin producing B-cells.

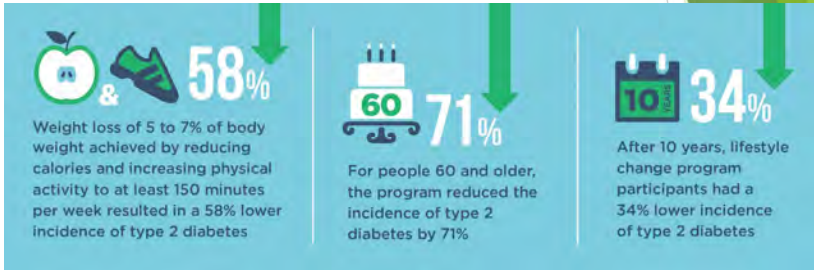
The Diabetes Prevention Program (DPP)

- ▶ ~3,000 overweight individuals with a risk for type 2 diabetes.
- ▶ Lifestyle intervention group reduced their risk by 58% during the 3-year study.
- ▶ After 10 years, the group still had 34% lower risk.
- ▶ At 15 years they had 27% lower risk.
- ▶ Improved cholesterol, triglyceride levels, and blood pressure, even with fewer medications.
- ▶ Less evidence of chronic inflammation.

SOUND DIETITIANS

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Good News for Preventing Diabetes



The infographic features three columns, each with an icon and a percentage. The first column shows an apple and a shoe with '58%' and text about weight loss and activity. The second column shows a birthday cake with '60' and '71%' and text about older adults. The third column shows a calendar with '10 years' and '34%' and text about long-term risk reduction.

- ▶ **58%** Weight loss of 5 to 7% of body weight achieved by reducing calories and increasing physical activity to at least 150 minutes per week resulted in a 58% lower incidence of type 2 diabetes
- ▶ **71%** For people 60 and older, the program reduced the incidence of type 2 diabetes by 71%
- ▶ **34%** After 10 years, lifestyle change program participants had a 34% lower incidence of type 2 diabetes

SOUND DIETITIANS

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More Good News

Finnish Diabetes Prevention Study

- ▶ After 2 years, incidence of diabetes was less than half in the intervention group compared to a group who did not receive diet or lifestyle training.
- ▶ Those who made the most dietary changes and lost the most weight had the greatest results.

India Intervention

- ▶ Even without weight loss a 28% decrease in incidence of diabetes was seen with diet and exercise changes



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Winning Strategies

The DPP lifestyle change intervention aimed to help participants lose 7% of their body weight, and to engage in 150 minutes of physical activity each week.

Participants were also guided to:

- ▶ Monitor their weight regularly
- ▶ Keep track of physical activity
- ▶ Reduce calorie intake
- ▶ Eat a wholesome, balanced diet
- ▶ Record food intake
- ▶ Manage stress
- ▶ Focus on stopping unhelpful negative thoughts
- ▶ Develop problem-solving skills related to healthful eating and being active.
- ▶ Maintain motivation



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Boosting Insulin Sensitivity and Preserving Insulin Production

1. **Weight loss**
 - a. Losing just a little weight can reduce insulin resistance.
2. **Diet**
 - a. A balanced pattern with emphasis on plants and healthy fats has beneficial effects.
3. **Physical activity**
 - a. Every time you exercise you utilize glucose and decrease need for insulin.
4. **Sleep**
 - a. Lack of sleep hinders the use of insulin. Aim for 7-8 hours nightly.



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Chapter 2: Preparing for Your Lifestyle Reset

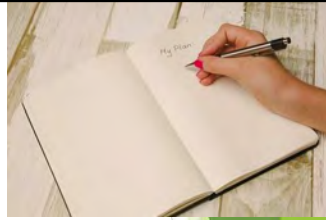
*"You will never change your life until you change something you do daily.
The secret of your success is found in your daily routine. – John C. Maxwell*



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Preparing for Your Lifestyle Reset

- ▶ Knowing what you want is the first step to success.
- ▶ Success requires self-reflection and deep planning.
- ▶ Long term changes are rooted in planning and preparation.
- ▶ Focus on skills, strategies and habits instead of willpower.



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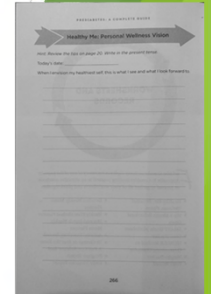
Creating a Personal Wellness Vision

- ▶ When I envision my healthiest self, this is what I see and what I look forward to... (see p. 282 - Healthy Me: Personal Wellness Vision)

Example:

I feel strong and mobile. I move without pain in the activities I pursue. I regularly exercise and feel energized everyday to challenge my mind and body. At 40 years old, I feel like I am in the best shape of my life. I listen to my body and take action to treat pain as injuries present themselves. I feel healthy and present to the people I love. I take care of my body and am conscious to how my daily decisions affect my health and wellbeing. I eat delicious balanced meals that make me satisfied, and listen to my fullness cues. I plan and prepare my lunches ahead of time, which reduces my stress and keeps me from eating candy in the afternoons. I may be getting older, but my body feels as strong as it can be.

See p. 21 for more examples.



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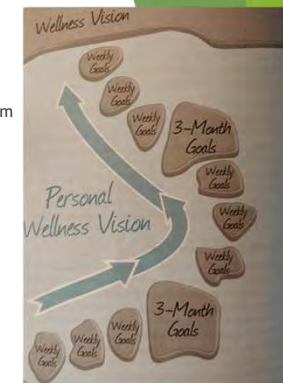
Wellness Vision Tips

- ▶ Write in the present tense (I feel vs I will feel).
- ▶ Keep it positive (focus on what you DO WANT not what you DON'T WANT).
- ▶ Discuss your vision with friends and family members.
- ▶ Revisit your wellness vision often and revise as necessary.
- ▶ Take the time to ask and reflect on important questions:
 - ▶ What does my ideal health and fitness look like in 1, 3, 5 years?
 - ▶ What activities am I participating in?
 - ▶ How do I look? What do I wear?
 - ▶ What makes me happy and energized?
 - ▶ What worries have I tossed aside?
 - ▶ What are the benefits of my new healthy lifestyle?
 - ▶ What would my life be like if I achieved my ideal level of wellness?
 - ▶ What would it be like if I stayed the same?

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Reaching Your Wellness Vision

- ▶ The path to your wellness vision is built based on long term and short term goals.
- ▶ **3 Month Behavioral Goals (Long term)**
 - ▶ What habits and routines would you like to have in place?
 - ▶ These should support your wellness vision.
- ▶ **Very-Short-Term Behavioral Goals**
 - ▶ These are small goals that support your 3 month goals.
 - ▶ Make 2-3 small goals per week.



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Outcome Goals vs Behavioral Goals

An **Outcome goal** is focused on an intended result that you want to achieve.

Example: To lose 10 lbs and bring my hemoglobin A1C into the normal range below 5.7%.

Outcome goals are the end result of a series of behaviors. They can be a long-term measure of strategic effectiveness.

Behavioral goals are focused on the behaviors and actions that you can directly control.

Example: I will walk 10-20 minutes around my neighborhood for at least 3 days this week.

These are actions you can do every day that can help you reach your outcome goals.

Key difference: You can directly control behavioral goals. But, you can't directly control outcome goals.



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3 Month Behavioral Goals

1. I exercise at the gym or otherwise participate in purposeful exercise at least 4 times each week and for at least 200 minutes weekly.
2. Instead of visiting the office kitchen for a snack, I choose my afternoon snack from nourishing foods that I plan ahead and bring with me.
3. I pack my lunch every workday.
4. I cook dinner most nights from a selection of healthful recipes.
5. I have a regular bedtime and stick to it.

▶ Use the sheet on p. 283 to create your own 3 month goals.



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Very-Short-Term Behavioral Goals

1. This week I will renew my membership at the gym.
2. At least 3 mornings before works this week, I will walk around my neighborhood for 10-20 minutes or engage in other purposeful exercise for the same amount of time.
3. On Monday, I'll take five pieces of fruit to work, one for each afternoon snack.
4. When I do my shopping on Saturday, I'll buy a new lunchbox and a blue-ice pack to keep my food cold.
5. This week, I'll collect at least 5 recipes to try and will prepare at least one of them. I'll keep my new recipes in a binder with notes about what my family likes and dislikes.

▶ Use the Goal-Tracker on P.284 to write your short term goals.

▶ **Tip:** Focus on behaviors. You are in charge of your actions.



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Homework

- ▶ Create your wellness vision using the prompts in the book.
- ▶ Set aside time to review and edit your personal wellness vision.
- ▶ Write out your outcome goals: what are you hoping to achieve?
 - ▶ Identify how can you turn these into behavioral goals: what can you do?
- ▶ Read chapters 1-3



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What to Expect in the Weeks to Come

Next month: Chapter 3 - Building a Health-Boosting Diet

- ▶ Each class will include the following
 - ▶ Start with a chance to share success and lessons learned from the previous week via the chat. Ask questions via the Q & A.
 - ▶ Review the current month's materials together.
 - ▶ Reading and homework activities.

Have a great month!
Next class is Monday, February 3rd:
Same time, day and zoom link!

