A program presented by...

WellStar Health System
Diabetes Education

Lisa Mason, MS,RD,LD,CDE
What this program is about ...

Preventing or delaying diabetes

*Prediabetes*
What are the numbers? ...

**Normal:** fasting blood glucose below 100

**Prediabetes:** fasting blood glucose between 100 and 125

**Diabetes:** fasting blood glucose 126 or above
How food is digested …

1. Food enters stomach
2. Food is converted into glucose
3. Glucose enters bloodstream
4. Pancreas releases insulin
5. Insulin unlocks receptors
6. Glucose enters cell
Diabetes ...

Body lacks insulin or is unable to use insulin effectively

Pancreas

Cannot produce enough insulin

Muscle and fat cells

Cannot use insulin effectively
The bad news ...

• A lot of people have Prediabetes
• The symptoms are not obvious – you may not know that you have them
• It often goes untreated
Are you at risk?

- Lack of physical activity

- Poor nutrition
  - Too many calories
  - High-fat
  - Low-fiber
  - Not enough fruits, vegetables or whole grains

- Being overweight/obese
  - Body Mass Index (BMI) >25
  - Waist circumference >40 inches
Other risk factors …

• Family history of Type 2 diabetes
• History of diabetes during pregnancy
• Non-Caucasian background
• Over age 40
Complications of uncontrolled diabetes …

• Cardiovascular disease
  • heart attack
  • stroke
• Blindness
• Kidney disease
• Amputation
• Erectile dysfunction
The good news...

- Diabetes can be prevented in many people.
- Changes in lifestyle can prevent or delay the development of type 2 diabetes in 58% of those with prediabetes
The good news …
You can **prevent** or **delay** type 2 diabetes through:

*More nutritious eating*

*Regular physical activity*
(150 minutes a week)

*Moderate weight loss*
(7% of body weight)
Balance is the cornerstone of prevention

More Nutritious Eating

Regular Physical Activity

Moderate Weight Loss
What is nutritious eating?

• Limit saturated fats (butter, cheese, fatty meats)
• Cut back on total amount of fat you eat (less oils, salad dressing, fried foods)
• Try to eat more fiber each day
• Eat fruits and/or vegetables at each meal
• Try to eat smaller meals at regular times
• Balance your total calories with your energy needs
Smaller portions …

… Make a **BIG** difference
What is regular physical activity?

• Brisk walking, bicycling, swimming or jogging
• Start with 5-10 minutes a day, 3-5 days a week
• Shoot for a total of 150 minutes a week
What is *regular physical activity*?

- Purchase a pedometer to record steps
- Aim for 10,000 steps a day
What are the benefits of exercise?

• Lowers blood glucose and blood pressure and controls cholesterol
• Strengthens heart, lung and circulatory systems
• Promotes weight loss
• Strengthens bones, increases muscle tone and stamina
• Improves quality of sleep
More benefits of exercise...

- Decreases stress, increases enthusiasm and optimism
- Improves blood flow to the brain
- Improves the way you feel about yourself!
Key concepts of successful weight loss

- Weight loss happens when energy output \textit{(activity)} is greater than energy input \textit{(calories)}
- You have to burn 3,500 calories to lose 1 pound of fat
- Reducing calories and increasing physical activity must go hand-in-hand

\textit{Here’s your Game Plan …}
1. Set your weight loss goal

• Go slowly … set realistic goals
  – Lose 1-2 pounds a week
  – Lose 7% of total body weight in 6 months

• Use waist measurements to track abdominal fat loss

• Use total body weight to track overall weight loss
Determine your daily calories...

\[
\frac{165}{\text{Current/Desired Weight}} \times \frac{12}{\text{Activity Factor}} = \frac{1,980}{\text{Calories Per Day}}
\]

<table>
<thead>
<tr>
<th>Activity Factor</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedentary</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Light Active</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Active</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Very Active</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>
Daily calories needed to lose weight ...

<table>
<thead>
<tr>
<th>Food</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 glazed donut</td>
<td>210</td>
</tr>
<tr>
<td>1 12 oz. reg. soda</td>
<td>140</td>
</tr>
<tr>
<td>1 slice cheese pizza</td>
<td>200</td>
</tr>
<tr>
<td>1 cheeseburger</td>
<td>350</td>
</tr>
<tr>
<td>1 med. fries</td>
<td>400</td>
</tr>
</tbody>
</table>
And the results …

• Calories reduced
  – 500 calories X 7 days = 3,500

• Calories burned
  – 200 calories burned x 5 days = 1,000

4,500 calories = 1.3 lbs/week
1.3 lbs x 4 weeks = 5.2 lbs/month
3. Work your GAME PLAN ...

Keep a diary ...

• Eating
  – Write down what, when and how much you eat
    • 500 calories less a day?
    • More fiber and less fat?

• Activity
  – Write down what you did and for how long
    • 150 minutes a week?
    • 10,000 steps a day?
4. Monitor your success …

Even if you haven’t lost all the weight you want, monitor your other successes …

• Are you exercising according to your plan?
• Have you improved your nutrition?
• Do you feel better about yourself?
Pulling it all together …

- Set reasonable goals
- **Start eating more nutritious meals**
  - Reduce fat
  - Increase fruits, vegetables and whole grains
  - Reduce calories for weight reduction
- **Start exercising**
  - Work up to 150 minutes per week of brisk walking
- **Monitor your success!**
  - Keep a diary of your eating and exercise
  - Track your weight loss, fat loss and other factors
- **Be patient and don’t give up**
Get support …

The WellStar Diabetes Education Center can help you understand prediabetes. Nationally certified educators provide sessions for adults on understanding steps to take and goals to live by.