References

Note: This material is provided for general information purposes only. It is not intended as a substitute for medical advice and/or consultation with a physician or technical expert.
What is Prediabetes?

Prediabetes is identified as having higher than normal glucose (sugar) levels in the blood, but not high enough to be considered diabetes.1 Currently it is estimated that approximately 84 million US adults 18 years and older have prediabetes.2

Individuals with prediabetes are at risk for developing diabetes, kidney disease, and heart disease.3,5 Prediabetes is likely to become diabetes over time (generally within 10 years or less) if patients with prediabetes and their doctors take no action to prevent or delay progression.3

Kidney disease may be present but unrecognized in individuals with prediabetes. A large study found that more than one third of individuals with prediabetes also had two signs of kidney disease:
- protein in the urine, or albuminuria, which is not normal, and
- reduced estimated glomerular filtration rate (eGFR), which is a measure of how well the kidneys work.3

Cardiovascular disease is a serious and leading cause of death for most people with prediabetes and diabetes.1,5 Findings from some studies suggest the risk for cardiovascular disease in individuals with prediabetes is nearly double that of those without abnormal glucose levels.5

What are the symptoms of prediabetes?
There are no obvious symptoms so a person can have prediabetes but not know it.4

What causes prediabetes?
Risk factor associated with prediabetes includes1,5:
- Being overweight or obese, especially abdominal obesity
- Physical inactivity
- High blood pressure
- A mother, father, brother or sister who has diabetes
- African American, Latino, Native American, Asian American or Pacific Islander race or ethnicity
- A history of heart disease
- If you are female, having been diagnosed with gestational diabetes while you were pregnant
- Low levels of HDL, the “good” cholesterol, high levels of triglycerides, and increased levels of small, dense LDL particles, the “bad cholesterol”1,5

How is prediabetes diagnosed?
If your doctor suspects you may have prediabetes, a blood test can be ordered to check your glucose levels. If test results confirm you have prediabetes, your doctor may then order lab tests to check your cholesterol levels and your kidney health.

How is prediabetes treated?
You may be able to delay or prevent diabetes with lifestyle changes such as those recommended by Centers for Disease Control and Prevention-led National Diabetes Prevention Program1,4:
- A minimum of 150 minutes per week of physical activity like brisk walking.
- Weight loss, if needed. The Diabetes Prevention Program recommends achieving and maintaining a minimum loss of 7% of body weight.
- If your doctor prescribes medication, take it as directed.

Where can I find more information?
American Diabetes Association®
Telephone: 800-DIABETES (800-342-2383)
Home page: www.diabetes.org

<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th>Prediabetes</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting Plasma Glucose</td>
<td>65 – 99 mg/dL</td>
<td>100 – 125 mg/dL</td>
<td>≥126 mg/dL</td>
</tr>
<tr>
<td>Hemoglobin A1c</td>
<td>≤5.6 %</td>
<td>5.7 – 6.4 %</td>
<td>&gt;6.4 %</td>
</tr>
<tr>
<td>Oral Glucose Tolerance Test</td>
<td>65 – 99 mg/dL</td>
<td>140 – 199 mg/dL</td>
<td>≥200 mg/dL</td>
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</tbody>
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Table: Comparison of fasting plasma glucose levels.