Diabetes mellitus refers to a group of diseases that affect how your body uses blood sugar (glucose). Glucose is vital to your health because it’s an important source of energy for the cells that make up your muscles and tissues. It’s also your brain’s main source of fuel.

The underlying cause of diabetes varies by type. But, no matter what type of diabetes you have, it can lead to excess sugar in your blood. Too much sugar in your blood can lead to serious health problems.

How Insulin Works
- Insulin is a hormone that comes from the pancreas.
- The pancreas secretes insulin into the bloodstream.
- The insulin circulates, enabling sugar to enter your cells.
- Insulin lowers the amount of sugar in your bloodstream.
- As your blood sugar level drops, so does the secretion of insulin from your pancreas.

The Role of Glucose:
- Glucose, or sugar, is a source of energy for the cells that make up muscles and other tissues.
- Glucose comes from two major sources: food and your liver.
- Sugar is absorbed into the bloodstream, where it enters cells with the help of insulin.
- Your liver stores and makes glucose.
- When your glucose levels are low, such as when you haven’t eaten in a while, the liver breaks down stored glycogen into glucose to keep your glucose level within a normal range.

Types of Diabetes
- **Type 1**: The exact cause of type 1 diabetes is unknown. What is known is that your immune system — which normally fights harmful bacteria or viruses — attacks and destroys your insulin-producing cells in the pancreas. This leaves you with little or no insulin. Instead of being transported into your cells, sugar builds up in your bloodstream.

  Type 1 is thought to be caused by a combination of genetic susceptibility and environmental factors, though exactly what those factors are is still unclear. Weight is not a factor in type 1 diabetes.

- **Prediabetes and Type 2 diabetes**: In prediabetes — which can lead to type 2 diabetes — and in type 2 diabetes, your cells become resistant to the action of insulin, and your pancreas is unable to make enough insulin to overcome this resistance. Instead of moving into your cells where it’s needed for energy, sugar builds up in your bloodstream.

  Exactly why this happens is uncertain, but weight is strongly linked to the development of type 2 diabetes, but not everyone with type 2 is overweight.
**Gestational Diabetes:** During pregnancy, the placenta produces hormones to sustain your pregnancy. These hormones make your cells more resistant to insulin.

Normally, your pancreas responds by producing enough extra insulin to overcome this resistance. But sometimes your pancreas can't keep up. When this happens, too little glucose gets into your cells and too much stays in your blood, resulting in gestational diabetes.

**Risk Factors for Diabetes**
- Age/Weight
- Inactivity
- Family history
- Race or ethnicity
- High blood pressure
- Abnormal cholesterol and triglyceride levels

---

**Recipe Feature**

**Pumpkin Soup:**
Number of Servings: 4

**Ingredients:**
- 3/4 cup water, (divided into 1/4 cup and 1/2 cup)
- 1 small onion, chopped
- 1 can (15 ounces) pumpkin puree or roast a small pumpkin and process the flesh in a blender or food processor
- 2 cups unsalted vegetable broth
- 1/2 tsp ground cinnamon
- 1/4 tsp ground nutmeg
- 1 cup fat-free milk
- 1/8 tsp black pepper
- 1 green onion, chopped

**Directions:**
1. In a large saucepan, heat 1/4 cup water over medium heat. Add onion and cook until tender, about 3 minutes. Don't let onion dry out.
2. Add remaining water, pumpkin, broth, cinnamon and nutmeg. Bring to a boil, reduce heat and simmer for 5 minutes. Stir in the milk and cook until hot. Don't boil.
3. Ladle soup into warmed bowls and garnish with black pepper and green onion tops. Serve immediately.

**Nutrition per serving:**

<table>
<thead>
<tr>
<th>Serving size: 1 cup</th>
<th>Calories: 77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol: 1 gram</td>
<td>Sodium: 57 mg</td>
</tr>
<tr>
<td>Total Carbohydrate: 14 grams</td>
<td>Total Fat: 1 gram</td>
</tr>
<tr>
<td>Protein: 3 grams</td>
<td></td>
</tr>
</tbody>
</table>

Source: Mayo Clinic