**Nuts**

Almonds (Whole Almonds, Almond Butter, Almond Flour and Almond Oil)

**Dosage**
- With breakfast

**Benefit**
- Decreased blood glucose concentrations and increased satiety

**Fiber**

**Dosage**
- 29.4 grams per day

**Benefit**
- Lower risk of dying from any cause

**Pre-biotic Fiber**

**Dosage**
- N/A

**Benefit**
- May reduce susceptibility to obesity and Type 2 diabetes later in life if consumed pre-adulthood

**Grains**

**Whole Grains**

**Dosage**
- 3 or more servings a day

**Benefit**
- Less visceral adipose tissue or VAT, a type of body fat believed to trigger cardiovascular disease and Type 2 diabetes
Brown rice

**White Rice Verses Brown Rice and Diabetes Risk**

*Dosage*  
Substituting brown for white rice

*Benefit*  
Lower risk for Type 2 diabetes

Whole grain, bran

**Whole Grain, Bran Reduces CV Mortality in Women with Type 2 Diabetes**

*Dosage*  
More than 9 g/day

*Benefit*  
Lower risk for all-cause mortality, especially CV

Green Leafy Vegetables

Spinach

**Nitrites in Spinach Counteract Components of Metabolic Syndrome**

*Dosage*  
200-300g/day

*Benefit*  
Counteracts components of metabolic syndrome; makes mitochondria more efficient

All (Spinach, Kale, etc…)

**Green Leafy Vegetables Cuts the Risk of Diabetes by 14%**

*Dosage*  
1.35 servings of green leafy vegetables/day

*Benefit*  
Reduction in risk of Type 2 diabetes

Vitamins

Magnesium

**Diabetes Risk Falls as Magnesium Intake Increases**

*Dosage*  
200 mg/1000 cal

*Benefit*  
Reduced diabetes risk 47%; cause not known; may facilitate proper function in enzymes which process glucose; may be important for improving insulin sensitivity and reducing systemic inflammation

Vitamin K

**Vitamin K Linked to Lower Diabetes Risk**

*Dosage*  
N/A

*Benefit*  
20% less likely to get diabetes;

Anti-oxidants

**Antioxidants Increase Insulin Sensitivity**

*Dosage*  
400 to 500 mg of antioxidants per day

*Benefit*  
An antioxidant-rich diet helped to increase insulin sensitivity and enhance the effects of metformin.
Coffee

**Why Coffee May Help Protect against Diabetes**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 cups/day</td>
<td>A protein called sex hormone-binding globulin (SHBG) may help decrease the risk of developing Type 2 diabetes</td>
</tr>
</tbody>
</table>

**Coffee Reduces Risk of Diabetes -- One More Study**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Coffee consumption may help to prevent Type 2 diabetes and metabolic syndrome</td>
</tr>
</tbody>
</table>

Vinegar

**Vinegar Reduces Postprandial Glycemia**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 g of apple cider vinegar, 49 g of water, and 1 teaspoon of saccharine</td>
<td>60-minute glucose excursions were 35% lower than after placebo; energy consumption was reduced by &gt;300 calories for the remainder of day</td>
</tr>
</tbody>
</table>

Dairy

**Whole-Fat Milk and Cheese**

**Whole-Fat Milk and Cheese Can Lower Diabetes Risk**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Inverse relationship between levels of trans-palmitoleate (a fatty acid found in whole-fat milk and cheese) and metabolic risk factors and a lower incidence of new-onset diabetes.</td>
</tr>
</tbody>
</table>

Spices and Oils

**Cinnamon**

**Cinnamon for Diabetes: It Helps ... a Little**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 g of cinnamon/day</td>
<td>Modest benefits for A1c and blood pressure have been shown</td>
</tr>
</tbody>
</table>

**Fish Oil**

**Why Fish Oils Can Improve Diabetes Control**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Omega-3 fatty acids have been found to activate a macrophage receptor, resulting in broad anti-inflammatory effects and improved systemic insulin sensitivity.</td>
</tr>
</tbody>
</table>

**Moderate Wine/Alcohol and Grapes**

**Moderate Wine**

**Moderate Wine Drinking Lowers Fasting Glucose in Type 2 Diabetes**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mL (five ounce) glass of wine with dinner daily</td>
<td>Modest but significant reductions ($P=0.015$) in fasting plasma glucose</td>
</tr>
</tbody>
</table>
**Moderate Drinking Linked to 44%-65% Lower Diabetes Risk**

**Dosage**
A drink or two per day

**Benefit**
Study participants were 45 percent less likely than teetotalers to develop Type 2 diabetes.

**Grapes**

**Grapes Reduce Risk Factors for Heart Disease, Diabetes**

**Dosage**
N/A

**Benefit**
Benefit thought to be due to phytochemicals -- naturally occurring antioxidants – that grapes contain.

**Red Wine, White Wine, Beer and Liquor**

**Moderate Drinking in Women Linked to Less Weight Gain**

**Dosage**
Light to moderate amount of alcohol

**Benefit**
Gained less weight and had a lower risk of becoming overweight and/or obese during 12.9 years of follow-up

**Fats**

**High-fat foods**

**Bacon at Breakfast Healthier than a Bagel**

**Dosage**
Fat-rich breakfast

**Benefit**
Fat intake at the time of waking seems to turn on fat metabolism very efficiently and also turns on the animal's ability to respond to different types of food later in the day.

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