Eat nuts for better diabetes management

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Abstract
Eating walnuts everyday may help reduce insulin levels in people with type 2 diabetes. Smart Food Centre researchers at the University of Wollongong Professor Linda Tapsell, Kate Dehlsen, Beck Thorne, Jane O’Shea and Kiefer Zhang tell you how.

Keywords
eat, better, diabetes, management, nuts

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Eating walnuts everyday may help reduce insulin levels in people with type 2 diabetes. Smart Food Centre researchers at the University of Wollongong, Professor Linda Tapsell, Kate Dehlsen, Beck Thorne, Jane O'Shea and Kiefer Zhang, tell you how.

Not only do walnuts taste great, they have been shown to be good for you. A recent Australian study has shown that including walnuts in the diet may help reduce fasting insulin levels in people with type 2 diabetes. This is great news for the 3.5% of the Australian population, or around 700,000 people in Australia, who suffer from the disease.

The study was conducted at the Smart Foods Centre, University of Wollongong where fifty overweight adults who controlled their type 2 diabetes by diet alone, followed a weight maintenance eating plan for a period of 12 months. The participants were divided into two groups that were advised on healthy diets with one group required to eat 30 grams of walnuts every day.

After three months, people in the walnut group lost between 1 - 2 kg and experienced a significant reduction in fasting insulin levels. Both diet plans were typically low in fat but the walnuts provided plenty of the 'good fats' for the experimental group. Walnuts contain about 70% polyunsaturated fat. Thirty grams of walnuts contain approximately 1.8g of omega-3 oils, 12g omega-6 oils and around 1.9g of dietary fibre, all of which are significant in the diet for diabetes management.

When compared with other nuts, walnuts are low in saturated fat and are the best source of polyunsaturated fats. These 'good fats' are made up of Alpha-Linolenic Acid (ALA) and Linoleic Acid (LA), which are considered to be essential fatty acids. This means the body cannot make these fatty acids from other dietary fats. The National Heart Foundation 2009 Position Statement suggests that walnuts be included in the diet as part of the recommended intake of 2g ALA per day².

A healthy diet should focus on lowering saturated fat and replacing it with polyunsaturated and monounsaturated fats. Diets high in saturated fat can increase cholesterol levels, a risk factor for cardiovascular disease (CVD).

Saturated fat is found in foods such as butter, full fat dairy and fatty meats. Diets with proportionally higher levels of monounsaturated and polyunsaturated fats can lower cholesterol levels. These fats are found in nuts, fish and oils such as sunflower and olive oils.

Nuts are a great food or snack as they also contain protein, fibre and substances with antioxidant activity such as Vitamin E. Research has shown a positive relationship between nut consumption and the prevention of lifestyle related diseases. The Nurses' Health Study found that women who ate more than 5oz (141.7g) of nuts a week had a significantly lower risk of developing CVD compared with women who < 1 oz (28.35g) month³. A recently published meta-analysis has shown that regular consumption of walnuts is associated with cholesterol reduction⁴.

Tips
Store opened packets in an air-tight container and keep in the refrigerator. This should help keep the nuts fresh until the use before date is reached. Just as apples go brown when chopped, walnuts also oxidise and lose freshness when chopped, so it is best to only chop walnuts just prior to using them.

Great tasting walnuts are easy to find in most supermarkets, delicatessens and health food stores. Most walnuts in Australia are imported from the USA. Walnuts are cultivated in a range of climates with a relatively small amount grown in Tasmania and the Riverina in NSW.
How to add walnuts to your daily diet

Add to your breakfast cereals - helps give long lasting energy.

Team-up walnuts with fresh or dried fruit and you have a perfect snack - great for those late morning or afternoon hunger pangs.

Sprinkle over a lunch time salad or add to vegetable soup for extra crunch.

Chop up and stir through pasta dishes for dinner - great for adding texture and flavour.

Combine with yoghurt for a healthy dessert with extra punch.

In fact, walnuts make a great addition to almost any meal.

Therefore high in calories (kilojoules), so even though they are full of good fats and nutrients, they are best eaten in small amounts.

It is best to select raw, plain/unsalted or dry roasted nuts.

In light of the health and nutritional benefits and their great taste, evidence is mounting on the benefits of including walnuts in a healthy balanced diet.

<table>
<thead>
<tr>
<th>Type of nut</th>
<th>% Polyunsaturated Fat</th>
<th>% Monounsaturated Fat</th>
<th>% Saturated Fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walnut</td>
<td>60</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Brazil</td>
<td>50</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Pistachio</td>
<td>40</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Peanut</td>
<td>30</td>
<td>50</td>
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</tr>
<tr>
<td>Almond</td>
<td>20</td>
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</tr>
<tr>
<td>Cashew</td>
<td>10</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>Hazelnut</td>
<td>0</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

Walnuts are a great source of polyunsaturated fat.

The colour and size of walnuts vary considerably, depending on the growing conditions. The colour ranges from a very pale colour to a rich warm brown colour, with the darker walnuts producing a much nuttier flavour.

As they are high in fat they contain high levels of compounds that serve as anti-oxidants, but they can also spoil, so you can either purchase in small amounts or keep in the fridge. Packaged walnuts may be preferable to loose walnuts to retain freshness for a longer period of time.

Including walnuts in a healthy balanced diet is one of the easiest things to do to add nutritional value.

Walnuts are a healthy treat to include in your diet but like all things in life there is always a catch. Nuts are high in fat and generally high in calories (kilojoules), so even though they are full of good fats and nutrients, they are best eaten in small amounts.

In light of the health and nutritional benefits and their great taste, evidence is mounting on the benefits of including walnuts in a healthy balanced diet.

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Professor Linda Tapsell is the Director of the Smart Foods Centre, University of Wollongong and leads a team into this ground-breaking research which includes Kate Dehlsen, a dietitian and Associate Research Fellow at the Smarts Foods Centre and Beck Thorne, Jane O'Shea and Kiefer Zhang who are Accredited Practising Dietitians and Associate Research Fellows at the Smart Foods Centre.