Peanut Oil: One of the World’s Traditional Healthy Oils

With the release of the new 2005 Dietary Guidelines and MyPyramid, consumers have more opportunities than ever before to make informed decisions about diet and nutrition. Both tools suggest making the most of your fat choices by choosing them wisely. This means limiting intake of solid fats like butter, stick margarine, and shortening, while focusing on consumption of healthy fats and oils like peanut oil and the foods that contain good fats like peanuts (1, 2).

Out with trans fats

The 2005 Dietary Guidelines recommend that consumers keep trans fat consumption as low as possible. To help people make heart-healthy choices, the United States Food and Drug Administration is requiring that by January 2006 all processed foods list trans fat content on the labels. The Guidelines say to keep saturated fat intake to less than 10 percent of daily calories and total fat intake between 20 to 35 percent of calories. Most fats should come from sources of polyunsaturated (PUFA) and monounsaturated (MUFA) fatty acids, such as fish, nuts, and oils (2).

In with healthful fats

Among the variety of available oils, peanut oil is a wise choice because it is not only low in saturated fat and trans fat-free, but it also contains a unique blend of the heart-healthy monounsaturated and polyunsaturated fats. Such a fat profile is ideal to help lower total and low-density lipoprotein (LDL) or “bad” cholesterol, as well as triglycerides, which are a type of fat associated with high total cholesterol, diabetes, obesity, and heart disease (3).

Fat Facts: Solid vs. Liquid

Oils are fats that remain liquid at room temperature—they come from plants, fish, and other foods like peanuts.

Choosing oils is wise because most have healthier fat profiles than solid fats. All fats and oils are a mixture of saturated fatty acids and unsaturated fatty acids, which include monounsaturated (MUFA) and polyunsaturated (PUFA).

Solid fats contain more saturated fats, cholesterol, and/or trans fats. These components have been shown to raise “bad” LDL cholesterol and, in turn, increase risk for heart disease.

Liquid oils are high in oleic and linoleic acids, which can lower cholesterol in the body (4).
Peanut Oil is Effective in Reducing Risk of Heart Disease

Diets including peanut oil decrease heart disease risk

Diet and exercise are the foundation of cardiovascular disease prevention. Important research shows that diets including peanut oil can decrease heart disease risk. A tightly controlled, randomized, double blind study from The Pennsylvania State University looked at the effects of placing healthy subjects with elevated blood cholesterol on diets rich in peanut oil. The diet was 16% protein, 50% carbohydrate and 34% fat (half from peanut oil). Results showed that compared to the typical American diet, subjects consuming the peanut oil diet experienced a 17% reduction in heart disease.

As stated by Dr. Penny Kris-Etherton, Distinguished Professor from the Department of Nutritional Sciences at The Pennsylvania State University, “Replacing 50% of fat in the diet with peanuts, peanut butter, and peanut oil yielded beneficial changes in lipid profile.” This change is due to the unique balance of healthy unsaturated fats found in peanuts and peanut products. While a low-fat diet has the potential to lower cholesterol levels as well, higher-fat diets that are high in MUFAs and low in saturated fat like the peanut oil diet have an added benefit. They don’t increase triacylglycerol concentrations or lower “good” HDL cholesterol levels, as low-fat diets tend to do (5).

**Reduction in Heart Disease Risk with Peanut Oil Diet**

<table>
<thead>
<tr>
<th>Kind of Fat or Oil</th>
<th>Percent Saturated</th>
<th>Percent Monounsaturated</th>
<th>Percent Polyunsaturated</th>
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</thead>
<tbody>
<tr>
<td>Olive Oil</td>
<td>14</td>
<td>77</td>
<td>9</td>
</tr>
<tr>
<td>Peanut Oil</td>
<td>18</td>
<td>48</td>
<td>34</td>
</tr>
<tr>
<td>Butter</td>
<td>66</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>86</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

University of Colorado Department of Chemistry (7)

**Profile: Peanut Oil (1 tbsp.)**

The health benefits of peanut oil don’t stop with its optimal fat profile. Peanut oil is packed with other functional nutrition components such as cancer-fighting phytosterols and the hard-to-get nutrient Vitamin E.

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>119</td>
</tr>
<tr>
<td>Total Fat</td>
<td>13.5 g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>2.3 g</td>
</tr>
<tr>
<td>Monounsaturated Fat</td>
<td>6.2 g</td>
</tr>
<tr>
<td>Polyunsaturated Fat</td>
<td>4.3 g</td>
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<tr>
<td>Vitamin E</td>
<td>2.1 mg AT</td>
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<tr>
<td>Total phytosterols</td>
<td>28 mg</td>
</tr>
<tr>
<td>Beta-sitosterol</td>
<td>25.7 mg</td>
</tr>
</tbody>
</table>

USDA Nutrient Database for Standard Reference, Number SR17
Phytosterols, Prevalent in Peanut Oil, Provide Protection Against Cancer

Study shows peanut oil has more phytosterols than olive oil

One of the most common forms of phytosterols is beta-sitosterol (SIT), which is found in high concentrations in some plant oils, seeds, and legumes, such as peanuts. Phytosterols not only protect against heart disease by interfering with the absorption of cholesterol, but they also protect against cancer by inhibiting tumor growth.

Researchers at the State University of New York at Buffalo examined the SIT content of several peanut products and found that peanut oil contains about 190 mg SIT/100 gm, making it a good source. In fact, refined peanut oil contains 38% more protective SIT than refined (pure) olive oil (8).

| Beta-sitosterol Content (mg/100g) of Peanut Oil Compared with Other Oils |
|-----------------------------|------------------|
| Unrefined Peanut Oil        | 191              |
| Refined Peanut Oil          | 153              |
| Extra Virgin Olive Oil      | 144              |
| Pure Olive Oil              | 117              |

Phytosterols from peanut oil reduce cancer growth

Additional studies from the State University of New York at Buffalo showed just how cancer-protective phytosterols are.

Prostate Cancer

In one study, two diets were fed to mice—one rich in phytosterols (from plant sources) and one supplemented with cholesterol (from animal sources). Results showed that phytosterols, occurring naturally in plant sources such as peanut oil, appear to reduce prostate tumor growth by over 40 percent and cut the occurrence of cancer spread to other parts of the body, like lymph nodes and lungs, by almost 50 percent (9).

Breast Cancer

In another study, the effect of phytosterols on breast cancer cell growth and progression was studied. Results from cells developed in a lab setting showed that beta-sitosterol inhibited cancer cell growth by 70% compared with controls (10).

Colon Cancer

A similar lab-based study set out to examine the effect of beta-sitosterol on the growth of human colon cancer cells. The study found that after beta-sitosterol supplementation for 9 days, cancer cell growth was 2/3 less than that of cells supplemented with cholesterol (another sterol, not found in peanut oil) (11).
Transforming a Nutrient-Packed Nut Into a Functional Oil

Recipe:
Cherry Peanut Granola
3 cups rolled oats
1/2 cup sesame seeds
3 tbsp butter, melted
1/2 cup brown sugar
1 tsp vanilla
cup peanuts
1 cup plump dried cherries
cup coconut
1/4 cup wheat germ
1/2 cup honey
1/4 cup peanut oil
1 tsp cinnamon
1 tsp salt
1 cup cut up dates

Method:
1. Preheat oven to 300°F.
2. Stir butter, oil, honey, sugar, vanilla and cinnamon in the bottom of a large bowl. Toss in coconut, wheat germ, oats, and peanuts. Toss well to coat.
3. Spread mixture out on a non-stick baking pan, parchment paper or baking mat. Bake for 30 minutes. Stir well and return to oven for 15 minutes. Check and stir every ten minutes after until the mixture is golden brown.
4. Remove from oven and sprinkle with salt, and then toss in dried fruit. Allow to cool and then store in an airtight container.

Serving directions: For a European style breakfast, eat granola with yogurt and cut up fresh fruit. For trail mix, just add some chocolate candies, pretzels and cereal.

Depending on how they’re processed, peanuts can be made into peanut butter, peanut paste, or peanut oil. For peanut oil, clean peanuts are passed through shellers to separate the kernels. The kernels contain about 50 percent oil, which is squeezed out using hydraulic presses (15).

Peanut oil is extremely versatile as it can be used for frying and cooking both in the home and in food manufacturing. It absorbs very little taste and odor, so you can strain and reuse it. It can also typically be considered safe for most people with peanut allergies (16).

Put peanut oil in your pantry
In addition to baking and frying with peanut oil, you can also use it in the following ways to make your recipes more delicious:

- Drizzle over grilled seafood
- Toss with roasted vegetables
- Brush over grilled pineapple or other fruits and vegetables

Types of Peanut Oil:
Mild Mannered or Flavorfully Fun
Mild peanut oil is made with mostly raw peanuts, which are pressed and refined until the oil is nearly clear. It is wonderfully versatile and will not add extra flavor to the dish you are cooking. Aromatic oil, produced from “roasted” peanuts that are gently pressed and filtered, adds a delicious roasted peanut taste especially appropriate for Asian cuisine or drizzling on a salad.

References