The Role of Peanuts in Traditional Diets

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PMK Associates, Inc.

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Highlights

• Peanuts in Traditional Diets
• Unique Study on Adolescents
• Peanuts are Heart-Healthy
Latin American Diet Pyramid

- **Beba Agua** (Drink Water)
- **Pollo, Huevos, Quesos, y Yogur** (Chicken, Eggs, Cheese, and Yogurt) - Con menos frecuencia (Less often)
- **Pescado y Mariscos** (Fish and Seafood) - Frecuentemente, por lo menos dos veces a la semana (Frequently, at least twice a week)
- **Frutas, Vegetales, Granos (principalmente enteros), Frijoles, Nueces, Leguminosas, y Semillas, Hierbas, y Especias** (Fruits, Vegetables, Grains (mostly whole), Beans, Nuts, Legumes and Seeds, Herbs, and Spices)
- **Carne y Dulces** (Meats and Sweets)
- **Cerveza y Vino** (Beer and Wine) - En moderación (In moderation)

- **Este Físicamente Activo; Disfrute su Comida con Otros.** (Be Physically Active; Enjoy Meals with Others.)

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Asian Diet Pyramid

Daily Beverage Recommendations:
6 Glasses of Water or Tea

Monthly

Weekly

Optional Daily

Daily

Daily Physical Activity

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www.peanut-institute.org
African Heritage Diet Pyramid

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www.peanut-institute.org
The World of Nuts

Peanuts are the most consumed nut

**Nut Consumption in the US**

USDA-ERS, 2009

**European Consumers Reporting Intake**

Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, UK

BJNutr, 2006
• Traditional Diets are
  – Vegetable/Plant-Based
  – High in good unsaturated fats
  – High in plant proteins - peanuts –highest in protein
  – High nutrient density
### STRONG
- Mediterranean diet
- High-quality diet
- Nuts
- Prudent diet
- Monounsaturated fat
- Glycemic index/load
- Vegetables
- Trans fatty acids
- Western diet

### MODERATE
- Dietary folate
- Dietary vitamin E
- Fiber
- Fish
- Marine omega-3 fatty acids
- Supplemental folate
- Whole grains
- Dietary beta carotene
- Supplemental beta carotene
- Dietary vitamin C
- Alcohol, light/moderate intake
- Fruits
- **Alcohol, heavy intake**

### WEAK
- Supplementary vitamin E
- Supplementary ascorbic acid
- Total Fat
- Saturated fat
- Polyunsaturated fat
- Omega-3 fatty acids, total
- Meat
- Eggs
- Milk

Mente, 2009; *Arch Intern Med*
### Summary of Peanut/Nut Epi Studies

#### 5 Major Studies; Over 260,000 People; 6-14 years

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart</td>
<td>25-50% reduction</td>
</tr>
<tr>
<td>Diabetes</td>
<td>27% reduction with 1 ounce peanuts 5x/wk</td>
</tr>
<tr>
<td></td>
<td>21% reduction with 1 Tbsp. PB (1/2 srv) 5x/wk</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>25-30% reduction with more than 5x/wk</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>Up to 60% reduction in women (2 or + times per wk)</td>
</tr>
<tr>
<td>BMI</td>
<td>Lower in those who consume</td>
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</table>

#### Consumption

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Frequency</td>
<td>Increased frequency reduces risk (daily twice as good as weekly)</td>
</tr>
<tr>
<td>Amount</td>
<td>Small amounts (0.5-1.5 oz.) have an impact on risk reduction</td>
</tr>
<tr>
<td>Age</td>
<td>Any age benefits (infants to over 85 y.o.)</td>
</tr>
<tr>
<td>Population</td>
<td>Benefits high risk populations (Mex-Am adolescents, Diabetics)</td>
</tr>
</tbody>
</table>
Peanuts Reduce Risk of CVD

Risk of heart disease decreases the more frequently you eat peanuts

Sabate and Ang, AJCN 2009
High MUFA Diets Favorably Affect CVD Risk vs. Step 1 & Step 2 (Lower Fat) Diets

Peanut diets as effective as olive oil diet for improving blood lipids.

Kris-Etherton et al. AJCN, 1999

www.peanut-institute.org
All Parts of Peanuts Improve LDL-cholesterol

<table>
<thead>
<tr>
<th>Week</th>
<th>Fat Free Flour</th>
<th>Peanut Oil</th>
<th>Whole Peanuts</th>
<th>Control</th>
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<tbody>
<tr>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>12</td>
<td>a</td>
<td>b</td>
<td>a</td>
<td>a</td>
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<tr>
<td>18</td>
<td>b</td>
<td>c</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>b</td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

Sanders, et al. IFT, 2008

www.peanut-institute.org
Risk of Diabetes Decreases the More Frequently You Eat Peanuts

Even in Obese (BMI >30)

Jiang, et al. JAMA, 2002
Nuts improve glycemic control in type 2 diabetes

Nuts, as part of a dietary portfolio of cholesterol-lowering foods, can be as effective as a first generation statin drugs in reducing LDL-cholesterol.

Jenkins, 2011; Diabetes Care
BMI of Peanut Users is Lower

Peanut/PB eaters have leaner bodies even though they consume more calories

*P<0.05

Griel, et al. AJCN, 2004
A Unique Study: Family Life Overweight Prevention Program

Family Lifestyle Overweight Prevention Program

BCM Baylor College of Medicine®

USDA

USDA/ARS Children’s Nutrition Research Center at Baylor College of Medicine

www.peanut-institute.org
Substitution of nutritious snack foods

Snack Intervention

Backpack Raid

1 oz portion of peanuts or 
¾ oz PB given daily at school
Children Lose Weight With Peanut Snacks

Baseline to 1 year

At 1 year, 80% of the “treatment group” (the children who swapped peanuts) decreased or maintained weight, while almost 65% of the control group gained weight.

Baseline to 2 years

At 2 years, 62% of the “treatment group” decreased or maintained, which 65% of the control group gained weight.

Johnston, et al. 2009; Obesity

[Graph showing BMI changes over time for treatment and control groups]
### Peanut eaters

- **Less likely to be overweight**
  - (60% vs. 40%)
- **Hunger after peanut snack**
  - 3mo. ↓
  - 6mo. ↓ maintained
- **Total cholesterol** ↓
- **“Bad” LDL cholesterol** ↓
- **Triglycerides** ↓ Trending
- **Inflammatory markers** ↓ Trending
- **Waist size** ↓
- **Quality of life** ↑

### hsC-RP

- **Plasma hsCRP (μg/mL)**
  - [Graph showing differences in hsCRP levels for different waist sizes]
  - Non-Obese
  - At-Risk
  - Obese

The Peanut Group Reduced All Blood Endpoints

[Flow logo]

[Website URL: www.peanut-institute.org]
Study compared vegetable consumption in children who were given peanut butter for dipping versus just vegetables.

- Peanut butter was chosen as the flavor to be paired with the vegetables, because
  - it is rich in Dietary Guidelines nutrients of concern, namely vitamin E, magnesium, potassium, and fiber,
  - it is a preferred taste and
  - it has a satiating effect over high-carbohydrate snacks.

Peanut butter proved to be a vehicle to increase consumption and variety of veggies

- true for “vegetable resistant” children as well

Johnston et al., 2011; JADA.
Peanut Hummus

3 cup garbanzos, soaked overnight
1/2 cup lemon juice
peanut oil to taste
salt and pepper to taste
water as needed
2/3 cup creamy peanut butter
1 bu. italian parsley, chopped fine
1 ea. jalapeño, seeds removed, chopped fine
2 ea. garlic cloves, chopped fine

• Cook garbanzos slowly in water until very soft. (May substitute canned garbanzos but limit the salt added to taste). They should be very mushy when one is taken and smashed between the fingers. Drain.

• In food processor, place all the garbanzos and process with some of the lemon juice, olive oil, salt, pepper, and water.

• Process until smooth. Scoop the mixture into a bowl. Add peanut butter. Stir well and adjust with oil and water for texture, and salt and pepper for taste.

• Make topping by combining parsley, jalapeño, and garlic in a small bowl. Cover with extra virgin olive oil. Season to taste with salt and pepper.

Yield: 8 Cups

Recipe Courtesy of the Culinary Institute of America for The Peanut Institute
2003

Qualified FDA Health Claim:
“Scientific evidence suggests but does not prove that eating 1.5 ounces of most nuts, such as peanuts, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.”

2012

Peanuts are Heart-Healthy

American Heart Association
CERTIFIED
Meets Criteria For Heart-Healthy Food

Criteria:
≤ 4 g saturated fat
≤ 140 mg Sodium
Salted Peanuts and Peanut Butter have less sodium than you may think...

- Salted Peanuts: 119 mg
- Peanut Butter: 147 mg
- Popcorn: 300 mg
- Onion Rings: 385 mg
- Chicken Sandwich: 576 mg
- Pho Soup: 866 mg
Peanuts and Peanut Butter

America’s Comfort Food
Partner with us to promote the role of peanuts in healthy diets:

- Supermarket tours
- Culinary demonstrations
- Games
- Activities
- Community connections
Traditional Diets

Many Ways to Fit Peanuts into Healthy Diets
Thank You!

Eat well, eat peanuts!

For Questions:

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www.peanut-institute.org
www.turkeyfrying.net