Lactose Intolerance
Dispelling Myths and Helping People Enjoy Milk, Cheese & Yogurt

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Today’s Discussion

• Lactose intolerance defined
• The impact of dairy avoidance
• Prevalence – who’s impacted
• Managing Lactose intolerance
Lactose Intolerance Defined
Varying Degrees of Lactose Sensitivity

Lactose Maldigestion
Incomplete digestion of lactose, the natural sugar in milk, due to low activity of the lactase enzyme; may be asymptomatic

Lactose Intolerance
Gastrointestinal disturbances following the consumption of an amount of lactose greater than the body’s ability to digest and absorb


J Natl Med Assoc. 2009;101:1S-24S
## Lactose Intolerance vs Milk Allergy

### Key differences...

<table>
<thead>
<tr>
<th>Lactose intolerance</th>
<th>Milk allergy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A sensitivity</td>
<td>An allergy</td>
</tr>
<tr>
<td>Occurs in gastrointestinal system</td>
<td>Triggered by immune system</td>
</tr>
<tr>
<td>A sensitivity to milk carbohydrate</td>
<td>A reaction to milk protein</td>
</tr>
<tr>
<td>(lactose)</td>
<td></td>
</tr>
<tr>
<td>Rare in young children</td>
<td>Generally impacts young children; may be outgrown*</td>
</tr>
<tr>
<td>Can enjoy milk and milk products</td>
<td>Should avoid milk and milk products (unless allergy is outgrown)</td>
</tr>
<tr>
<td>with simple management strategies</td>
<td></td>
</tr>
</tbody>
</table>


*Allergy and Asthma Foundation of America. [Milk Allergy](http://www.aafa.org/display.cfm?id=9&sub=20&cont=516)
The Impact of Avoiding Milk, Cheese and Yogurt
Lactose Intolerance: A Barrier to Dairy Consumption

- Over 80% of pediatricians and dietitians agree that lactose intolerance is a major reason some people avoid milk and milk products
- Lactose intolerance is the number one barrier to health professional recommendations for dairy

The Unintended Consequences

People who avoid milk and milk products due to lactose intolerance miss many benefits

Dairy and its essential nutrients are associated with:

• Improved nutrient intake and diet quality
• Better bone health
• Weight management
• Reduced risk of certain chronic diseases

Van Loan M. *JACN*, 2009; 28:120S-129S
Low Dairy Intake Among Ethnic Groups

Only half of African Americans eat one or more servings of dairy a day\(^1\)

On average, U.S.-born Hispanics consume only 1.5 – 1.6 servings of dairy a day\(^2\)

Health & Nutrition Authorities Support Dairy
Who Experiences Lactose Intolerance?
An Adult Condition

• Lactose intolerance is rare in younger children¹, ²

• Lactose intolerance typically emerges in late-adolescence or adulthood²

Lactose Intolerance Prevalence

12% of Adults Report Being Lactose Intolerant

Percent of Adults, by Ethnic Group, Who Self-Reported Lactose Intolerance

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>19.5%</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>10.05%</td>
</tr>
<tr>
<td>European Americans</td>
<td>7.72%</td>
</tr>
</tbody>
</table>

Why Lactose Intolerance Rates May Have Been Over-Estimated

**New Estimates (2009)**
- Based on self-reports
- Reflect real life consumption

**Previous Estimates (1988)**
- Lactose maldigestion breath tests
- Based on unrealistic amounts of lactose
- Findings widely misinterpreted

What Can Health & Nutrition Professionals Do To Help?
Pinpointing the Problem: Moving Beyond Belly Aches

Two-Step Process

1. Verbal or written confirmation
2. Hydrogen Breath Test, Lactose Tolerance Test or Stool Acidity Test

Source: J Natl Med Assoc. 2009;101:1S-24S
Simple Strategies to Manage Lactose Intolerance

✓ **Reduce it** – Opt for lactose-free products

✓ **Sip it** – Introduce dairy slowly

✓ **Stir it** – Mix milk with food

✓ **Slice it** – Choose natural cheeses

✓ **Shred it** – Top foods with cheese

✓ **Spoon it** – Try yogurt
There’s More than One Way to Enjoy Dairy

- Lattes, warm milk, hot chocolate
- Natural cheeses such as Cheddar, Parmesan, Swiss
- Cold beverages such as smoothies/licuados
- Cereal and milk (hot or cold)
Easy Ways to Cook with Dairy

• Traditional foods with milk, natural cheeses and yogurt

• Soups made with milk
## Amount of Lactose in Common Dairy Foods

<table>
<thead>
<tr>
<th>Product</th>
<th>Lactose (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole, 2%, 1%, Skim Milk (1 cup)</td>
<td>13 g</td>
</tr>
<tr>
<td>Lactaid® Milk, low-fat, lactose-free (1 cup)</td>
<td>0 g&lt;sup&gt;A&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cottage Cheese, low-fat, 2% milkfat (1/2 cup)</td>
<td>3 g</td>
</tr>
<tr>
<td>Cheddar Cheese, sharp (1 oz)</td>
<td>&lt;0.1 g</td>
</tr>
<tr>
<td>Swiss Cheese (1 oz)</td>
<td>&lt;0.1 g</td>
</tr>
<tr>
<td>Mozzarella (1 oz)</td>
<td>&lt;0.1 g</td>
</tr>
<tr>
<td>American Cheese, pasteurized, processed (1 oz)</td>
<td>1 g</td>
</tr>
<tr>
<td>Yogurt, low-fat (1 cup)</td>
<td>13 g&lt;sup&gt;B&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ice Cream (1/2 cup)</td>
<td>4 g</td>
</tr>
</tbody>
</table>

Note: these averages are supplied by the USDA. Lactose content varies by product and the lactose content of a specific product would need to be verified by a vendor.

Unless otherwise indicated, data sourced from: USDA / ARS, Nutrient Data Laboratory, Standard Reference, 22, January 2010. Lactose content varies by product and the lactose content of a specific product would need to be verified by a vendor.


B. Many people with lactose intolerance can enjoy yogurt because the cultures that are inherent in yogurt help digest the lactose.
Lactose-Free Products Provide Delicious Options

• Real milk without the lactose
• Same essential nutrients
People Like Lactose-Free Milk

Individuals with lactose intolerance rated their beverage liking as follows:

<table>
<thead>
<tr>
<th>Liking</th>
<th>Beverage</th>
<th>Varieties Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Reduced-fat (2%) lactose-free cow’s milk</td>
<td>White</td>
</tr>
<tr>
<td>#2</td>
<td>Fat-free lactose-free cow’s milk</td>
<td>White, fortified</td>
</tr>
<tr>
<td>#3</td>
<td>Soy-based milk-substitute beverage</td>
<td>Plain, organic, Vanilla, Plain, fortified</td>
</tr>
</tbody>
</table>

Adapting Your Message Can Lead to Success

• Promote small sequential steps to change a lifestyle
• Motivate parental change
• Keep culture and taste preferences top of mind
• Accentuate the positives

Strategies for Health Professionals to Help Patients Manage Lactose Intolerance

• Get informed
• Ask
• Advise
• Identify those at risk
• Educate

Source: J Natl Med Assoc. 2009;101:1S-24S
Resources
www.nationaldairycouncil.org