



# *Lactose Intolerance and Milk Allergy*

## **Trainee Workbook**



# Lactose Intolerance vs. Milk Protein Allergy

	<b>Lactose Intolerance</b>	<b>Milk Protein Allergy</b>
<b>Cause</b>	Low levels of the enzyme “lactase” in the intestine make it hard to digest the sugar “lactose”.  Often runs in families.	The body has a harmful immune response to certain milk proteins.  Often runs in families.
<b>Symptoms</b>	Gas, cramps, bloating, diarrhea. Usually occurs 30 minutes - 2 hours after consumption.	Rash, hives, wheezing, vomiting (may happen right away) Also, runny nose, diarrhea, possible anaphylaxis
<b>Foods to Avoid</b>	Food with lactose. Some people with mild lactose intolerance may be able to tolerate small amounts of lactose, such as in hard cheeses, yogurts, buttermilk. They also should be able to consume lactose-free dairy products.	All dairy products, possibly including milk from other animals
<b>Food Packages</b>	Low Lactose (CT4L, CP4L) - if not severe  Soy & Tofu (CT4S, CP4S) - if severe	Soy & Tofu - unless they also have a soy allergy) (CT4S, CP4S)  For infants soy formula (unless they also have a soy allergy) or therapeutic formula

**What questions could you ask to help determine if a child has lactose intolerance or milk protein allergy?**

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**Notes:**

# Labels: Cow's Milk & Milk Alternatives

<b>1% COW'S MILK</b> (With Lactose)	<b>1% COW'S MILK</b> <b>LACTOSE FREE</b>
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<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	102
Calories from Fat	21
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.4g</b>	<b>4%</b>
<b>Protein 8.2g</b>	
Calcium	29%
Vitamin D	32%

<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	110
Calories from Fat	20
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.5g</b>	<b>4%</b>
<b>Protein 8.0g</b>	
Calcium	30-50%
Vitamin D	25%

<b>SOY MILK</b> WIC authorized	<b>SOY MILK</b> Not WIC authorized	<b>RICE MILK</b> Not WIC authorized
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<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	80-140
Calories from Fat	20-45
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.5-5g</b>	<b>4-8%</b>
<b>Protein 8-10g</b>	
Calcium	30%
Vitamin D	25%

<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	60-130
Calories from Fat	15-40
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 1.5- 4.5g</b>	<b>3-7%</b>
<b>Protein 5-9g</b>	
Calcium	4-45%
Vitamin D	25-30%

<b>Nutrition Facts</b>	
Serving Size 1 ( cup 240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	70-130
Calories from Fat	20-25
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.5g</b>	<b>4%</b>
<b>Protein 0-1g</b>	
Calcium	2-30%
Vitamin D	0-25%

<b>ALMOND MILK</b> Not WIC authorized	<b>COCONUT MILK</b> Unsweetened Not WIC authorized	<b>OAT MILK</b> Not WIC authorized
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<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	30-120
Calories from Fat	20-25
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.5- 3.0g</b>	<b>4-5%</b>
<b>Protein 1g</b>	
Calcium	35%
Vitamin D	25%

<b>Nutrition Facts</b>	
Serving Size 1 ( cup 240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	45-50
Calories from Fat	35-50
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 3.5-5g</b>	<b>5-8%</b>
<b>Protein 1g</b>	
Calcium	10-45%
Vitamin D	25-30%

<b>Nutrition Facts</b>	
Serving Size 1 cup (240mL)	
<hr/>	
<b>Amount per Serving</b>	
<b>Calories</b>	130
Calories from Fat	20
<hr/>	
<b>% Daily Value*</b>	
<b>Total Fat 2.5g</b>	<b>4%</b>
<b>Protein 4g</b>	
Calcium	35%
Vitamin D	25%

## Nutrient Composition: Cow's Milk & Milk Alternatives

	Calories	Calories From Fat	Total Fat (grams)	Protein (grams)	Calcium (Percent of Daily Values)
<b>1% COW'S MILK</b> (with lactose)	102	21	2.4	8.2	29%
<b>1% COW'S MILK</b> (lactose-free)	110	20	2.5	8.0	30-50%
<b>SOY MILK</b> WIC authorized	80-140	20-45	2.5-5.0	8-10	30%
<b>SOY MILK</b> Not WIC authorized	60-130	15-40	1.5-4.5	5-9	4-45%
<b>RICE MILK</b> Not WIC authorized	70-130	20-25	2.5	0-1	2-30%
<b>ALMOND MILK</b> Not WIC authorized	30-120	20-25	2.5-3.0	1	35%
<b>COCONUT MILK</b> Unsweetened Not WIC authorized	45-50	35-50	3.5-5.0	1	10-45%
<b>OAT MILK</b> Not WIC authorized	130	20	2.5	4	35%

**What important differences do you notice?**

**Notes:**

## Non-dairy Sources of Calcium\*

Good Sources		Fair Sources
<ul style="list-style-type: none"> <li>• Soy and other non-dairy milk alternatives, calcium fortified</li> <li>• Juice, calcium fortified</li> <li>• Sardines, with bones</li> <li>• Salmon, canned with bones</li> <li>• Tofu, with calcium sulfate</li> <li>• Collard greens</li> </ul>	<ul style="list-style-type: none"> <li>• Spinach</li> <li>• Bok choy</li> <li>• Soybeans</li> <li>• Beans</li> <li>• Broccoli</li> <li>• Kale</li> <li>• Supplements</li> </ul>	<ul style="list-style-type: none"> <li>• Clams</li> <li>• Oysters</li> <li>• Mung beans</li> <li>• Oranges</li> <li>• Mustard greens</li> <li>• Turnip greens</li> <li>• Almonds</li> <li>• Corn tortillas (if lime is listed with ingredients)</li> </ul>

\*From <http://www.cdph.ca.gov/programs/wicworks/Documents/NE/WIC-NE-EdMaterials-Calcium.pdf>, and <http://www.cdph.ca.gov/programs/wicworks/Documents/NE/WIC-NE-EdMaterials-LactoseOrDairyIntolerance.pdf>

## Non-dairy Sources of Vitamin D\*

Good Sources		Fair Sources
<ul style="list-style-type: none"> <li>• Salmon</li> <li>• Mackerel</li> <li>• Tuna</li> <li>• Fish oils</li> <li>• Some fortified non-dairy milk alternatives</li> </ul>	<ul style="list-style-type: none"> <li>• Ready-to-eat cereal, if fortified</li> <li>• Orange juice, if fortified</li> <li>• Margarine, if fortified</li> <li>• Supplements</li> </ul>	<ul style="list-style-type: none"> <li>• Beef liver</li> <li>• Cheese</li> <li>• Egg yolks</li> </ul>

\*From: <http://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/>

## Vegan Sources of Vitamin B-12\*

<ul style="list-style-type: none"> <li>• Ready-to-eat cereal, if fortified</li> <li>• Some nutritional yeast</li> <li>• Supplements</li> </ul>
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\*From: From <http://ods.od.nih.gov/factsheets/VitaminB12-HealthProfessional/>



Scenario 2: At the 2 year old recertification appointment, Jorge's parents say he has constipation because of the milk. After going through the Nutrition Questionnaire and asking additional questions about Jorge's diet, we see that Jorge drinks 5 8-oz servings of milk most days along with yogurt and cheese.

- What other information would you need & what questions will you ask Jorge's parents?

- What information could you offer Jorge's parents?

- What food package(s) could you offer this PPT?

- What C-codes might you enter for this PPT?

- What might you write in the INEP notes?





Scenario 5: Hazel is brought to her 1 year recertification appointment. She had been fully breastfed, and is still being breastfed. Her parents don't want to offer cow's milk because they don't believe it's the healthiest option. They want to give her almond milk instead.

- What other information would you need & what questions will you ask Hazel's parents?

- What information could you offer Hazel's parents?

- What C-codes might you enter for this PPT?

- What might you write in the INEP notes?