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Understanding Lactose Intolerance, Sensitivity, & Dairy Allergy

Food Intolerance definition: Intolerance refers to the absence of specific chemicals or enzymes needed to digest a food substance. Intolerance is not a disease or an allergy as it does not trigger an immune response involving antibodies.

Sensitivity definition: Food and environmental sensitivities refer to an adverse reaction when the body is exposed to a sensitizing factor in the environment or in food. It does not involve antibodies, but may involve other aspects of the immune system (increased intestinal permeability or a leaky gut). Most food and chemical reactions are considered sensitivities.

Allergy definition: Allergy refers to the immune system's hypersensitivity to an offending substance involving elevation of specific antibodies due to antigen stimulus. It is an immune system reaction to a substance that other people find harmless. Allergic reactions are classified into two categories, immediate and delayed, up to 72 hours. They can range from mild to severe which can cause anaphylactic shock.

Lactose Intolerance: Lactose is milk sugar and occurs naturally in the milk of animals. Many people are sensitive to milk products because they lack the enzyme called lactase. This enzyme, found in the gastrointestinal tract, is critical in the digestion of lactose. If the lactase enzyme is missing or depleted, the gastrointestinal tract can not adequately break down the milk sugar, leading to a wide variety of symptoms. When this occurs these individuals are described as being "lactose intolerant".

Symptoms of Lactose Intolerance: Symptoms from lactose intolerance can vary greatly from one individual to the next as well as vary within the individual. It's difficult to estimate how many people are lactose intolerant. Because the condition encompasses so many ethnic groups, it is estimated that 30 to 50 million Americans suffer from some form of dairy intolerance¹. In addition to ethnic origins, age plays a major roll in the ability to tolerate dairy products. As we mature the lactase enzyme begins to diminish in our gastrointestinal tract. This is why lactose intolerance can intensify with age and each individual's tolerance is dependent upon the amount of lactase enzyme in their system, and the amount of dairy products ingested at any given time.

Think of it this way, if you have a limited amount of lactase enzyme in your gastrointestinal tract and you ingest limited amounts of dairy, your body may be able to handle the breakdown of the lactose on its own. However, if you have a limited amount of lactase enzyme available and you ingest moderate to high amounts of dairy, you will have exceeded or tipped the scale for your body's capacity to digest the lactose and thus experience symptoms. Unfortunately, there is no way to establish what the terms limited, moderate, and high amounts of dairy mean because it is dependent upon each persons individual constitution. It is important to note that it is possible to be both lactose intolerant and also develop a sensitivity to dairy proteins.

Symptoms from lactose intolerance can vary greatly from one individual to the next as well as vary within the individual. These symptoms include but are not limited to:

- stomach cramps
- intestinal bloating or "pot belly"
- flatulence
- diarrhea
- headaches
- nausea



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Dairy Allergy: As with the symptoms of lactose intolerance, the reaction to milk proteins can also vary greatly from one individual to the next. Sensitivity to milk proteins is generally regarded as a dairy allergy as it triggers an immune response involving antibodies. This response can intensify over time particularly if dairy is continually consumed.

Symptoms of Dairy Allergy: Dairy allergy symptoms tend to increase in severity from that of lactose intolerance. These symptoms include but are not limited to:

- stomach cramps
- intestinal bloating or "pot belly"
- flatulence
- diarrhea
- constipation
- headaches
- nausea
- asthma
- nasal congestion or mucous buildup
- skin rash
- hives
- fatigue
- eczema
- bleeding from the bowel
- rectal fissures
- rectal itching
- anaphylactic shock

Sources of dairy

Primary sources

- milk (in any form including: whole milk, low-fat milk, nonfat milk, skim milk, 2% milk, 1% milk, acidophilus milk, buttermilk, cream, sour cream, half-and-half, lactose-free milk, dry milk, condensed milk, evaporated milk, goat's milk, sheep's milk, milk proteins, milk solids, malted milk, and milk fat)
- butter (in any form including: butter fat, butter oil, artificial butter flavor)
- yogurt
- custard, puddings, and nougat
- cheese (in any form including: cream cheese, cottage cheese, pasteurized cheese, feta cheese)
- ice cream, sherbet, ice milk
- some brands of margarine

Hidden sources

Dairy ingredients come in many different forms, several with names difficult to pronounce. The important thing is to be able to recognize them when they appear on a label, look for:



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- curds
- whey
- ghee
- casein
- caseinates (in the form of: calcium, potassium, sodium, magnesium, and ammonium)
- rennet casein
- lactose
- lactulose
- hydrolysates
- lactalbumin
- lactoglobulin

Product Labeling: The labeling used on food products is a very useful tool when you are trying to monitor your lactose levels or trying to eliminate dairy products from your diet completely. But like everything else, ingredient labels can change without notice. It's a good idea to read the label every time you purchase a product.

Additional considerations: Dairy comes in many forms and is in more food items than you might realize. Beyond the obvious in the dairy case, many other products contain dairy in the form of lactose or milk-proteins. One such example is a dairy protein called casein found in certain brands of tuna fish and alternative cheese products. Dairy and its derivatives can also be found in packaged lunch meats, mayonnaise, potato chips, margarine, non-dairy creamers, non-dairy whipped topping, and products labeled lactose free.

In addition to various food items, dairy components can also be found in pharmaceutical drugs, both over the counter and prescription, vitamins, supplements, skin lotions, cosmetics, and soaps.

Footnote 1 Government Publication Titled: Lactose Intolerance Site address page specific:
www.niddk.nih.gov/health/digest/pubs/lactose/lactose.htm NIDDK — National Digestive Diseases Information Clearinghouse

References: Jardine, Denise, "Recipes For Dairy-Free Living," 2001, Ten Speed Press, Berkeley, CA. Kail, Konrad and Bobbi Lawrence, "Allergy Free," 2000, Alternative Medicine.com Books, Tiburon, CA. Lipski, Elizabeth, "Digestive Wellness," 2000, Keats Publishing, Los Angeles, CA. Walsh, William E., M.D., "Food Allergies," 2000, John Wiley & Sons, New York.

More information: [American Academy of Allergy Asthma & Immunology - Dairy-Free Living Information](#) [The Food Allergy and Anaphylaxis Network](#)