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# Risks in Foods - What to do About Them

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UtahStateUniversity
COOPERATIVE EXTENSION

*Food Safety*

*Fact Sheet*

# What Are the Risks in Foods and What Can You Do About Them?

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**FN-250.3**

## Hormones

Bovine Growth Hormones (BGH), also called bovine somatotropin (BST) has been in the news in the last few years. BST is a naturally occurring protein hormone found in all cattle that helps regulate growth and milk production. Giving cows extra BST helps them become more efficient milk producers. The goal is to allow dairy farmers to be able to produce the same amount of wholesome milk from fewer cows at a lower cost.

Trace amounts of BST are found in milk from both treated and untreated cows, and thus it is very hard to tell which is from the treated animals. Since the hormone is species-specific, bovine growth hormone doesn't affect humans. Meat and milk from research trials are approved for human consumption by FDA; however, the agency is still reviewing the hormone's effects on cows. Much of the furor over the use of BGH is over the economics of increasing the milk supply rather than human safety.

## Pesticides

A very small percentage of fruit and vegetables have pesticide levels above the legal level. This is a relatively low risk proposition because:

1. The legal levels have a large built in safety factor. The pesticide must be safe at 100 times the legal level for extra security.
2. Often the legal problem is due to the pesticide not having been approved for that type of produce, not because it is not safe to consume at that level.

## *Carcinogens*

(Cancer causing chemicals)

Food contains an abundance of potentially carcinogenic compounds naturally. Luckily, our bodies have developed natural defenses against carcinogenic compounds! The overall diet has a much greater relationship to the incident of cancer than does the addition of food additives. Less than 1% of cancer deaths can be attributed to food additives. In many cases, the food additives, such as those compounds added to food to prevent rancidity, may be protective against cancer causing agents.

The most important factors when trying to eat to avoid cancer are:

1. Have a balanced, varied diet. Be sure to eat foods that contain carotene, and vitamins C and E.
2. Consume fat at 30% or less of total calories.
3. Consume adequate fiber.

## *Microbial*

Microorganisms (bacteria, molds, yeasts, viruses) are a normal part of our environment and although most microorganisms are harmless, some can cause illness or death due to food poisoning. These can be found in garden dirt, in fecal material, in water, in/on animals, and on human skin and nasal passages, or anything with which they have had contact. Recognize that all foods have the potential for carrying harmful organisms.

The major food safety problem is food poisoning due to mishandled foods and microbial growth.

## *In Summary*

**The good news:** In general, those things over which you do not have a direct control—for example, pesticides, food additives, hormone treatments—are extremely low food safety risks.

**The bad news:** More food safety problems are caused by microbial problems than any other category, and the most common abuse is in how the food is handled after purchase. This means it is up to you to keep your food safe.

Enjoy your food but play it safe by following these rules:

- **Keep your prepared foods either very cold (under 40 ° F) or very hot (over 140° F). The general rule is do not hold food between 40-140 ° F for more than 2 hours.**

**The Reason:** Microorganisms multiply rapidly at warm temperatures. Some food poisoning organisms can double in number every 20 minutes. This means that a single organism can increase to 2,097,152 organisms within 7 hours. Reproduction of the microorganisms is very slow at cold and hot temperatures and therefore is not considered a problem. In most cases, a high number of bacteria in the food is necessary before food poisoning.

**The Application:**

- Don't buy eggs, milk, fresh meats, salads, sandwich spreads, or cream filled products unless they are in a refrigerated case.
- Don't let food sit on the counter while waiting for dinner or after the meal before refrigeration.
- Portion leftovers so that they will cool rapidly. Don't refrigerate whole stuffed turkeys—it takes too long to cool.
- Keep picnic foods at right temperatures by using coolers or insulated containers.
- The safest way to thaw foods is in the refrigerator.

## Keep food clean.

**The Reason:** The fewer microorganisms added to a food, the less chance of food poisoning, therefore good sanitation is very important. For example, Staphylococcus aureus, a common source of food poisoning, is found on human skin especially when there is an infection, pimple or boil, and can go from the cook to the food.

**The Application:**

- Wash hands thoroughly before handling food and teach children to wash hands.
- Avoid contact with food if you have a cut or infection on your hand.
- Do not put cooked food on dishes, board or countertops where raw food has been.
- Do not cough or sneeze on food or equipment used in food preparation.
- Keep pets away from food and countertops.
- Control household pests (rats, mice, roaches).
- Use hot, soapy water to wash hands, countertops and utensils.

## Decrease or avoid risk whenever possible .

- Reheat leftovers thoroughly.
- Discard moldy food or at least trim ¼–½ inch below the visible mold.
- Don't give infants under 1 year of age honey.
- Store household cleaners away from food.
- Never modify canning recipes nor use canning procedures which have not been scientifically tested.
- Wash fruits and vegetables.

## When in doubt, throw it out!

- Never taste food that looks or smells strange. Just discard it.
- Canned goods—never eat food from a can that was bulging or that spurted when opened.

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Department of Agriculture, Robert L. Gilliland, Vice President and Director, Cooperative Extension Service, Utah State University, Logan, Utah. (EP/3-95/DF)