



How foods lose their freshness

by George Meinig, D.D.S.

DEAR DR. MEINIG: You recently had an article on the effects of canning on food value. I don't think you have ever written about the importance of how to select food when buying and how to handle it between purchase time and eating. I see bags of fresh groceries sitting in hot closed-up autos and on kitchen sinks for long periods. There must be dozens of things we all do without thinking about possible detriment to the value of the food that can occur before we eat it.

V.L.

DEAR V.L.: Seeing fresh groceries sitting in hot autos and left on kitchen counters is also one of my pet peeves. It does seem that it should be common knowledge, how quickly heat causes spoiling of fresh and frozen foods - but it happens so often that I now suspect people just don't realize how they are reducing the nutrient value of the expensive food they have bought. Women generally get the blame, but keep in mind that many men now help with shopping and food preparation. They too often make stops and detours on the way home from the market.

We all have so many claims on our time that a trip to town usually involves stops not only at the supermarket, but also at the drug store, post office, clothing store, gas station, etc. Too often the food market is the first or second on the list, resulting in long exposure to heat in the car. People write often (and wisely) about the suffering of animals left in a hot car - but nothing is said of the foolishness and extravagance of exposing fresh food to that wilting heat. This is a plea for all of you to leave

grocery shopping to the last, so those important, perishable foods can be promptly brought home. This means men too. They must not decide to stop for gas or a beer after leaving the market. Once home, food should immediately be unpacked and refrigerated. All fresh vegetables, and especially leafy greens, should be kept in the vegetable crisper and/or in moisture proof bags. They will keep their nutrient value best if stored at low temperature and high humidity. Potatoes, carrots, sweet potatoes, tubers and root vegetables keep better when cool and slightly moist. Green peas keep best in their pods. Once shelled, store them in plastic bags - they lose flavor and color in time, especially when exposed to air and light.

Tomatoes are all too often picked green. You can't speed ripening in the car or on a sunny windowsill. An airy place out of the sun, at room temperature is good. Check and turn them every day until ripe, then refrigerate.

BREAD AND milk should also be kept out of the sun or direct light, preferably in

opaque containers. The vitamin Riboflavin (B2) is quickly destroyed by light. The old-fashioned glass milk bottle was a problem in the past because it often sat out for hours after early morning deliveries. Bread also keeps better in the refrigerator, or even in the freezer. I don't recommend drinking fruit juices. It is so easy to imbibe too much fruit acid and fruit sugar. If you use fresh juices occasionally for parties or frozen treats, try to make them fresh just before serving, as the vitamin C is lost very soon.

When purchasing greens, lettuce, cabbage, cauliflower and celery, watch for bruised, decayed or wilted leaves. Also avoid tomatoes, peppers, musk melons, and any fruits that have soft spots or bruises. T.V.'s green grocer, Joe Carcione often makes excellent suggestions on fruit and vegetable selection. Check your frozen food packages for soft spots, evidence of previous thawing, discoloration, and cracked or broken packages. Buy your frozen foods last and have them packed by themselves in insulated or double bags to prevent thawing on the way home. Everyone recognizes the brown, decayed spots on apples and bananas, but will buy other foods with similar signs of spoiling.

REFRIGERATOR temperatures are usually set between 38 degrees and 42 degrees F. It should not get above 42 degrees. There should always be a thermometer in every refrigerator, to keep a check on the temperature. With refrigerator-freezer combinations, the freezer should be at 0 degrees F., lower would be better but they seldom are below zero as separate freezers can be. Supermarkets spend \$100,000 and more for equipment to maintain food temperatures, and this does not include air conditioning cost. They keep meat at 32 degrees F., dairy products at 34 degrees, and frozen foods at 10 below zero.

There is terrible waste from food spoilage in our homes. There is a similar unrecognized loss of nutrient value when foods are kept too long even if they are finally eaten. Most of this is preventable, with modern refrigeration, and a little care and attention.

ONE MORE caution: Open your "fridge" as little as possible - and never have it standing open. It takes a long time to bring the temperature down again after such abuse (ditto for freezers).

Refrigeration storage limits for steaks, chops, roasts, slices of ham and luncheon meats, are from 3 to 5 days. Ground meat, fresh pork sausage, poultry, giblets and cooked meat should be used in a day or two. Cured whole ham, bacon, smoked sausage and frankfurters can be kept for one week.

Leafy green vegetables keep 90% of their vitamins A and C for 24 hours. In 4 or 5 days this percentage is down to 75%. Refrigeration storage time of 1 to 2 days is O.K., for asparagus, broccoli, Brussels sprouts, spinach, salad greens, mushrooms, green onions and ears of corn in the husks. Berries should be stored unwashed with stems on, loose in shallow containers. Watch them, as some kinds are very perishable, especially when really ripe.

Use in 3 to 5 days: Snap beans, celery, cauliflower, cucumber, okra, green peppers, summer squash, ripe tomatoes, apricots, rhubarb, avocados, grapes, nectarines, figs, cherries, peaches, plums and pears. The vegetables that keep for 1 to 2 weeks are: Beets, carrots, radishes, cabbage and parsnips. Eggs should be tightly covered in the coldest (way back, low down) spot of the refrigerator and are best if used in a week. Butter should be

kept in its box or wrapper until ready to use. It lasts well for weeks. Longer if frozen.

THOSE WHO have ventilated cooler-closets can keep potatoes in open containers for long periods if the temperature is 50° or less. Yams, sweet potatoes, dry onions, winter squash, and rutabagas can be kept several months at 60°. Bananas, citrus fruits, melon, apples and cranberries will keep about a week at 60°-70° room temperature. Lacking a "cooler," the best place is on the floor, where there is good air circulation. Heat goes up.

Seeds, whole grains and nuts are prey to many insects, bacteria, molds and fungi from the growing field and storage areas. Pesticides have controlled a good deal of this infestation, but several at-home precautions in handling are good to know. Don't buy things if they are discolored, lack luster or have obvious mold or fungus growth. Keep in a cool, dry place below 45°F. Use only clean, covered jars or receptacles. Check grain before storage, and eliminate dust and broken kernels. Don't mix new grains, seeds or nuts with leftovers; use clean receptacle for new kernels. All this cuts infestation and spoilage.

The rancidity and spoilage of food is something we grow up with, and too often think that we can do nothing about it. Relatively simple handling procedures can, control bacteria spores, molds, fungi, oxidation dryness, excessive moisture or humidity.