

FREEZING TIPS

Modern freezing is one of the easiest, most convenient and least time consuming food preservation techniques. Properly frozen food keeps much of its fresh flavor and nutrients.

FACTORS AFFECTING FOOD QUALITY

- **Enzymes**—freezing slows enzyme activity which alters texture, color and flavor
- **Air**—oxygen can cause flavor and color changes in improperly packaged food
- **Microorganisms**—do not grow at freezing temperatures but are not destroyed
- **Ice Crystals**—the smaller the better, the quicker something freezes the smaller the crystals
- **Freezer temperature**—0°F or lower (use a freezer thermometer)
- **Moisture evaporation**—proper air removal in packaging helps prevent evaporation of ice crystals that cause dried out, or freezer burned food

FREEZING POINTERS

- Freeze foods at 0°F or lower. To facilitate more rapid freezing, set the temperature control at -10°F or lower about 24 hours in advance.
- Freeze foods as soon as they are packed and sealed.
- Do not overload your freezer with unfrozen food. Add only the amount that will freeze within 24 hours, which is usually 2 to 3 pounds of food per cubic foot of storage space. Overloading slows down the freezing rate, and foods that freeze too slowly may lose quality.
- Place packages in contact with surfaces in the coldest part of the freezer.

- Leave a little space between packages so air can circulate freely. Then, when the food is frozen, store the packages close together.
- Leave proper headspace in the container to allow for expansion.

PACKAGING FOR FREEZING

- Moisture and vapor resistant
- Durable and leak-proof
- Not become brittle and crack at low temperatures
- Resistant to oil, grease or water
- Protect foods from absorption of off flavors or odors
- Easy to seal and easy to label

OTHER IMPORTANT THINGS TO KNOW

- Blanching helps improve the color and texture of frozen food.
- IQF - Individual Quick Freezing: spread and separate food on a tray and freeze, then repackage. Works well for fruits and some vegetables.

THAWING

- **Refrigerator thawing**—plan ahead as this is the safest way for meats
- **Cold water thawing**—submerge in water-proof container of cold water, changing water every 30 minutes, use immediately
- **Microwave thawing**—fine for certain foods, but uneven, can start cooking, use immediately
- **Cooking without thawing**—move food straight from freezer to pot

Always thaw perishable foods in the refrigerator!

REFERENCES

- McCurdy, S. M., J. Peutz, and G. Wittman. 2009. Storing food for safety and quality. University of Idaho, PNW 612, <http://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw612.pdf>.
- National Center for Home Food Preservation website, <https://nchfp.uga.edu/>.
- University of California. Food storage. UC Food Safety website, http://ucfoodsafety.ucdavis.edu/Food_Storage/.
- USDA. Food storage and preservation. Nutrition.gov website, <https://www.nutrition.gov/shopping-cooking-and-food-safety/food-storage-and-preservation>

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IMPORTANT SAFETY NOTE

Research on food preservation is ongoing, and recommendations may change. Make sure your information is current. Always follow up-to-date, tested guidelines and recipes from reliable sources.

LOCAL CONTACT

For more information, contact the University of California Cooperative Extension office in your county. See your telephone directory for addresses and phone numbers, or visit http://mfp.ucanr.edu/Contact/Find_a_Program/.

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