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Safe Home Canning Is a Way to Savor Summer Year-Round

**By Melanie Reynolds
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Seems like everywhere you turn these days you see another garden plot cropping up in our community. This growing interest has been a boon to public health.

As we all know, fruits and vegetables are key to a healthy diet. National dietary guidelines recommend eating more of them than any other food group to reduce your risk of disease. And who wouldn't be more inclined to eat vegetables they raise themselves? They're packed with the flavor that comes from ripening on the vine.

Now that summer's waning, it's still possible to enjoy the benefits of fresh produce – whether you grow it yourself or buy it at the Farmer's Market. Like gardening, home canning is enjoying a resurgence. It can be a healthy and economical way to preserve veggies so you can eat them all year long.

But home canning can also be risky – even deadly – if not done properly. If you're dreaming of green beans in January, be sure you invest the time to learn to preserve them right.

Canning Can Be Risky

The greatest risk of home canning is foodborne poisoning caused by a group of bacteria known as *Clostridium botulinum*. They're found naturally in the soil, and they can survive, grow, and produce toxins in a sealed jar of food. Even a tiny taste of contaminated food can cause botulism, a serious and potentially fatal illness.

Although foodborne botulism outbreaks are fairly rare in this country, home-canned vegetables are the most common cause. Outbreaks usually occur because the home canner:

- Didn't follow up-to-date canning instructions;
- Didn't use a pressure canner (instead of a boiling-water bath canner);
- Ignored signs that the canned food was spoiled; and/or

- Was unaware of the risk of botulism.

Bacteria spores are very heat resistant. The best way to protect against botulism food poisoning when canning is to use the correct processing time, temperature, and pressure.

Changing with the Times

Home canning – both the process and the equipment – has changed greatly in the 180 years since it was introduced. If you're planning to preserve, this isn't the time to dig out old family recipes or insist on doing it the way grandma always did.

The U.S. Department of Agriculture produces home canning guidelines that reflect the latest scientific evidence. You can find them online (see sidebar). Even if you've been canning for decades, it may be worth reviewing them to make sure you're using the safest recipes and techniques. Another good resource is the Lewis & Clark County Extension Service.

There are two safe methods of home canning: boiling-water bath canning and pressure canning. Which you use depends on the acid content of the food you plan to preserve. With water bath canning, food reaches a temperature no higher than that of boiling water: 212 degrees Fahrenheit. Pressure canning can bring foods to 240 degrees or higher.

Low-acid foods (like asparagus, green beans, beets, and corn) lack the acidity that can inhibit the growth of bacteria like *Clostridium botulinum*. So low-acid foods must be preserved using pressure canning to prevent bacteria growth. Water bath canning is appropriate only for high-acid foods, like pickled or fermented foods. Tomatoes are borderline between high and low acid, so you need to add bottled lemon juice, citric acid, or vinegar, according to researched recipes, when processing them with a water bath.

Playing It Safe

Here are some tips to help ensure that the food you preserve is safe to eat:

- Use the right canning process and equipment.
- If you're selecting a pressure canner, choose one made for canning, not just pressure cooking.
- Make sure the gauge of your pressure canner is accurate. (The Lewis & Clark County Extension Service recommends testing the gauge annually; they'll do it for you for free.)
- Use clean equipment and work surfaces.
- Adjust time and pressure for higher altitudes. (Helena is just over 4,000 feet.)
- Use modern, professionally tested recipes.
- Use top-quality produce free of disease and mold.
- Can produce immediately after harvesting.
- Wash produce thoroughly before canning.
- Discard overripe produce.

Never taste home-canned food to determine if it's safe. Toss it out if the container is leaking, bulging, or swollen; looks damaged, cracked, or abnormal; or spurts liquid or foam when opened. Also toss any food that's discolored, moldy, or smells bad.

Even if you see no signs of spoilage, it's a good idea to boil home-canned foods in a saucepan before eating them to help kill any bacteria. Boil for 10 minutes at altitudes below 1,000 feet, plus a minute more for every 1,000 feet of additional elevation.

As they say in the food-safety biz, "When in doubt, throw it out!"

More Information

- USDA Home Canning Guidelines: http://nchfp.uga.edu/publications/publications_usda.html
- Lewis & Clark County Extension Service: 447-8042, www.lccountymt.gov/extension.html
- Botulism and its symptoms: www.cdc.gov/nczved/divisions/dfbmd/diseases/botulism/
- How to dispose of contaminated food:
www.cdc.gov/nczved/divisions/dfbmd/diseases/botulism/consumers.html