

Home canning is an excellent way to preserve food product freshness. If you are considering using home canning, there are things you can do to ensure that your food products are safe.

#### **Know the risks**

 Canned foods that are not prepared properly at home can lead to botulism; a deadly form of food poisoning caused by the bacterium Clostridium botulinum. Botulism spores are hard to kill and are extremely heat-resistant. Foods contaminated with *Clostridium botulinum* toxin may not look or smell spoiled. Do not eat from cans or bottles that are dented, leaking, or have bulging ends, as this could mean that the contents are unsafe.

## **Safe home canning practices**

 Home canning requires special equipment including heavy-duty glass jars, metal lids, metal bands, boiling water canners and pressure canners. Always read the manufacturer's instructions for your canning equipment and follow recipes carefully. **Changing ingredients** and cooking times can results in unsafe food.

## **Validated Recipes**

A validated recipe is a recipe that has undergone a testing process that has been scientifically determined to be adequate in ensuring a shelf-stable product. A validated recipe includes container types and size, ingredients, acidity (pH) and time and temperature requirements.

# **Determining Acid Level**

Determining the acid level of the food items you will be canning will help you understand the type of equipment needed to ensure canning is done in a manner that will ensure food is safe. Each type of acid level must be prepared differently and safely to precent the growth of *Clostridium botulinum*.

### **High acid foods (low risk)**

 High-acid foods include those with a pH of less than 4.6, such as fruit, pickles, jams, jellies and marmalades. High-acid foods require a boiling water canner that heats food to 100°C (212°F) to ensure safe home canning. The acid in the food prevents bacteria from growing and the temperature will kill most yeasts, mould and bacteria that could be present. The bacteria that causes botulism does not grow at a pH below 4.6, as such it is not a concern for high acid foods.

### Low acid foods (high risk)

- Low-acid foods include those with a pH of more than 4.6, such as meat, fish and vegetables.
   Canned low-acid food provides an ideal environment for the botulinum spores to germinate, grow and produce its toxin.
- Low-acid foods require a pressure canner to ensure safe home canning capable of reaching

116°C -121°C (240°F - 250°F). At this high temperature, botulinum spores are rapidly killed. It is important to remember that mixtures of low and high acid foods, such as spaghetti sauce with meat, vegetables and tomatoes, are considered low-acid foods and require a pressure canner to destroy botulism-causing bacteria.

## Safe food handling and processing

#### **Clean and Sanitize**

- Wash hands with soap and warm water before and after handling food
- Wash fruits and vegetables, including those with rinds, before preparing them
- Clean and sanitize all work surfaces, utensils and equipment. Keep them clean during all stages of the canning process to avoid cross-contamination
- Sterilize your jars. Wash them in hot soapy water and then boil the jars according to recipe instructions

### **Equipment**

- Use one cutting board for washed, fresh products and separate one for raw meat, poultry and seafood
- Only use new self-sealing lids and make sure the sealing compound is not damaged before use. Screw bands may be re-used
- Inspect jars to make sure they are free of cracks and chips
- Discard any rusted or dented bands

### Cook

- Use only current, tested home canning recipes.
  Never substitute the jar size or the amounts of ingredients that are recommended in the recipe
- Use the appropriate heat-processing method according to the acidity of the food
- During processing, check that adequate cooking or heating temperatures are maintained

For more information on food safety, contact York Region Health Connection at 1-800-361-5653 (TTY: 1-866-252-9933) or visit york.ca/foodsafety

#### Store

- Label and date all home canned foods before storing
- Store in a cool, dry place. For best quality, use within one year from the date they were made
- Once the container has been opened, refrigerate leftovers

