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# Food Facts For You!

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**FDA's Watchful Eye on the American Diet; Safe Handling Tips for Pet Foods and Treats; Testing Dial Gauge Canners; Infants and Honey; Care and Cleaning of Butcher Blocks and Wooden Cutting Boards; Food Safety: It's in Your Hands; Web Resource: Food Safety and Health Topics A-Z**

## FDA's Watchful Eye on the American Diet

Four times a year, Food and Drug Administration (FDA) employees posted from coast to coast perform a task normally carried out by homemakers. They leave their offices and head for supermarkets and fast food restaurants in 12 cities in the Western, North Central, Southern, and Northeastern regions of the United States. Using carefully compiled shopping lists, they buy 280 food products that make up the typical diet of most Americans. They ship the voluminous market baskets to an FDA laboratory in a suburb of Kansas City, Kan., which is the focal point of FDA's internationally renowned program called the "Total Diet Study (TDS)."

Scientists at the FDA's Kansas City lab assemble the products and send them to a nearby church. There, they are cleaned, peeled, mashed, cooked, baked, fried, and sauted - the way they are likely to be prepared by millions of Americans in their homes. Then, the ready-to-eat foods are sent to three FDA laboratories where they are analyzed for **contaminants**, **pesticide residues**, and **selected nutrients**.

### Four Decades of Monitoring Meals

FDA's TDS is an outgrowth of post-World War II concerns about the potential effects on the American food supply of toxic chemicals produced by radioactive fallout.

**Early Testing:** When FDA launched the project in 1961, it tested foods typically eaten by 16-19 year-old boys whose big appetites would expose them most heavily to possible contaminants. The first study included 82 foods, and the tests were focused on two by-products of radiation—strontium 90 and cesium 137—and the residues of a few pesticides. The program was quickly recognized for its high value in protecting public health.

**An Evolving Program:** Since then, the program has been not only dramatically expanded, but also repeatedly updated to keep in step with new health hazards and America's changing food choices. For example, between 1990 and 2003, the study stopped analyzing such foods as scalloped potatoes, stewed tomatoes, and cream-style corn that are less popular today than in the early 1990s.

At the same time, the list of analyzed foods was enlarged to include more **low-fat products** and **fast foods**, including low-fat cottage cheese, water-packed tuna, and such carry-outs as Chinese fried rice and burritos. **Baby foods** are an important part of the TDS as well, and particular attention is paid to keeping up with the ever-changing array of baby foods on store shelves. By now, the program covers **285 foods** that are analyzed for more than 200 components including pesticide residues, toxic elements such as lead, volatile organic compounds, radionuclides and industrial chemicals, and nutrient elements. The tests have been upgraded to detect residues at levels 5-20 times lower than conventional analytical techniques.

## Impressive Results

The TDS has led to finding of some potentially serious food hazards which are then traced to their source. For example:

**Cereals and Dairy Products:** In 1971, the study detected PCBs—organic compounds used in industrial cooling fluids—in breakfast cereals. The agency traced the contaminant to PCB-contaminated recycled paper in which the product was packaged. Several years later, the Study found high levels of iodine in dairy products. FDA investigation found that the chemical came from iodine-containing materials used to clean the equipment in dairy and other food processing plants.

**Baby Food and Peanut Butter:** Still more detective work was required to find the reasons for elevated levels of lead in certain baby foods and of arsenic in peanut butter, both of which the study discovered in late 1990s. The baby food contaminant was found in carrots grown in former orchards that had been treated with lead-containing insecticide; the search for the cause of the peanut butter problem led to a peanut field that, many years before, had been treated with arsenic-containing defoliant.

**Salmon:** Yet another example of the study's successful work was the discovery in 2000 of a pesticide in a sample of salmon. The contamination was probably caused by a major spill of the chemical in Oregon's Columbia River.

## Direct Benefit to Consumers

In all cases the results of these investigations were passed on to the involved food firms or industry, and promptly led to corrective actions. Overall, the greatest beneficiaries of FDA's Total Diet Study are American consumers. As they sit down to their daily meals, they don't have to worry about hidden contaminants.

Summarized from an FDA article: http://www.fda.gov/consumer/updates/dietstudy070907.html

## Safe Handling Tips for Pet Foods and Treats

**We** love our pets, and some simple steps will help prevent foodborne illness, including ***Salmonella*** **-related** illness, when handling pet foods and treats. These products, like many other types of foods, can be susceptible to harmful bacterial contamination.

***Salmonella*** in pet foods and treats can cause serious infections in **dogs and cats**, and in **people** too, especially children, older people, and those with compromised immune systems. *Salmonella* in pet foods and treats can be transferred to people ingesting or handling the contaminated products. Or people can become sick if, after caring for a sick animal, or handling their waste, they don't wash their hands properly.

Pet owners and consumers can help reduce the likelihood of infection from contaminated pet foods and treats by following safe handling instructions:

**Buying**

- Purchase products in good condition, without signs of damage to the packaging such as dents or tears.

**Preparation**

- Wash your hands for 20 seconds with hot water and soap before and after handling pet foods and treats, and after playing with pets or handling their waste.
- Wash pet food bowls, dishes, and scooping utensils with soap and hot water after each use.
- Do not use the pet's feeding bowl as a scooping utensil—use a clean, dedicated scoop or spoon.
- Dispose of old or spoiled pet food products in a safe manner, such as in a securely tied plastic bag in a covered trash receptacle.

**Storage**

- Refrigerate promptly or discard any unused, leftover wet pet food. Refrigerators should be set at 40° F or below.
- Dry products should be stored in a cool, dry place—under 80° F.
- If possible, store dry pet food in its original bag inside a clean, dedicated plastic container with a lid, keeping the top of the bag folded closed.
- Keep pets away from food storage and preparation areas.
- Keep pets away from garbage and household trash.

**Raw Food Diets**

The U.S. Food and Drug Administration (FDA), the agency which regulates pet food, does not advocate a raw meat, poultry, or seafood diet for pets due to increased risk of illness that these diets present to the health of the animal and their owner. If a pet owner chooses a raw food diet for their animal, the FDA recommends the following precautions:

- Keep raw meat and poultry products frozen until ready to use.
- Thaw raw meat items in the refrigerator or microwave oven.

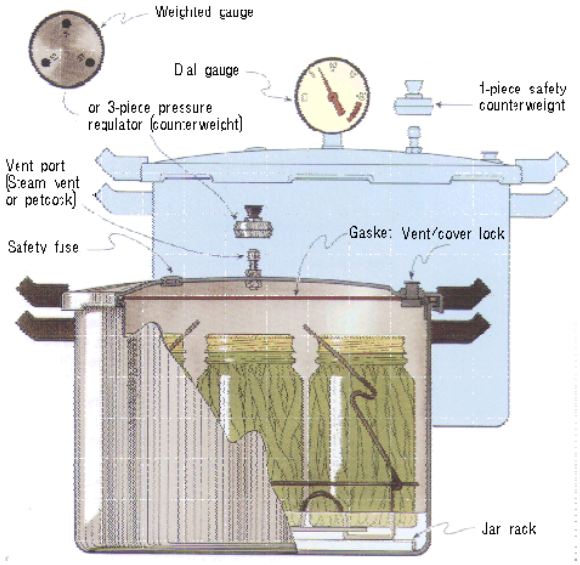
- Keep raw food diets separate from other foods. Wash working surfaces, utensils (including cutting boards, preparation and feeding bowls), hands, and any other items that touch or contact raw meat, poultry, or seafood with hot soapy water. [This includes floor areas where animals may place or drop food.]
- Immediately cover and refrigerate any raw meats leftover from a feeding. Discard any raw meats left out for more than 2 hours.
- Sanitize cutting boards, counter tops and floor feeding areas as follows: wash the area with soap and warm water. Rinse with clear water and then spray with a dilute bleach solution (1 teaspoon of bleach in a quart of water). Allow the sprayed area to air dry for at least 3 minutes. There is no need to wipe or rinse the sprayed surface.

Archived here: www.foodsafety.wisc.edu Topics A-Z; Pets

## Care, Use and Testing of a Pressure Canner

A pressure canner is necessary to obtain the high temperatures required to safely can low-acid foods like meat and vegetables. Canning these foods under pressure (at high temperatures) ensures safety while preserving as many of the nutrients as possible. It's important to start off each canning season by inspecting your pressure canner and, if you have a dial-gauge canner, having it checked for accuracy.

**Types of pressure canners.** There are two basic types of pressure canners, **weighted gauge canners and dial-gauge canners**. Modern pressure canners are lightweight, thin-walled kettles; most have turn-on lids. They have a jar rack, gasket, dial or weighted gauge, an automatic vent/cover lock, a vent port (steam vent) to be closed with a counterweight or weighted gauge, and a safety fuse.




**At the start of the canning season.** At the beginning of every canning season, gather your equipment and inspect all the parts.

- **Canner kettle.** The canner kettle must be able to lay flat on the burner. The **handles** should be intact and securely attached to the kettle. Replace broken or loose handles as these present a hazard when moving a hot canner.
- **Jar rack**. Jars should always sit above the bottom of the canner on a rack. If you have misplaced your canner rack, you can purchase a replacement, or you can substitute a cake cooling rack – as long as the rack sits nicely on the floor of the canner.
- **Gasket**. A rubber gasket seals the canner and prevents steam from leaking out around the cover. Replace the gasket when it becomes either stretched or dry and brittle, or when it allows steam to escape. You should store the gasket (cleaned and dried) coiled in the bottom of the canner, not in the lid. Do not oil the gasket as this will cause the rubber to deteriorate more rapidly.

- **Vent port and cover**. Pressure canning begins with a 10-minute venting process during which steam should flow freely through the vent port. During canning, the vent port is sealed with a counter weight or weighted gauge. For these reasons, the vent port must be kept clean and free of contaminants. At the beginning of the season, and before each use, check the vent port by holding the canner lid up to the light. The vent port should be clean and unobstructed.
- **Lid and gauge**. Covers of pressure canners are locked in place so that they can not be lifted by steam. Most new canners have covers that slide into a locked position. Inspect the canner lid. The **rubber safety plug** should be clean and pliable. Safety plugs go into action only if pressure or temperature becomes dangerously high. One type of plug melts when pressure gets too high or utensil boils dry. Another type of plug is blown out by excessive pressure. Both types are replaceable. A **gauge**, whether a dial or weight, is **essential to control and monitor pressure**. The **weight type** permits pressure to rise to a definite point and then releases excess steam to keep pressure from going higher. Some people refer to these gauges as 'rocking' or 'jiggle' gauges. With this type of gauge, the canning process is monitored by listening for a certain number of jiggles per minute. Most weights allow you to process at 5-, 10- or 15-pounds of pressure. You should inspect the weight for your canner, but it does not have to be tested. A **dial gauge** canner has a pressure dial on the top that allows you to read the pressure inside the canner during the canning process. Dial gauges operate from 0- to 25-pounds of pressure, with most recipes calling for a pressure of either 6- or 11-pounds of pressure. **Dial gauges <u>must</u> be checked every year to ensure that they are accurate.** Your dial gauge will be tested against a Master Gauge which will determine if your gauge is accurate, if you can compensate for your gauge being off, or if your gauge needs to be replaced. Call your local county Extension office for information on getting your dial gauge tested. Record your test results on the form below.

**Testing Form for Dial Gauge Canners**

| **Date** | Master Gauge (6 psi): | Your Gauge reads: | Process at*: | Master Gauge (11 psi): | Your Gauge reads: | Process at*: |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

***Recommendation:**

- If **your gauge** reads high or low by **two (2) pounds (psi) or less,** you may use it with the following compensation:
    - If your gauge reads up to 2 pounds higher than the Master Gauge, you must add the amount of difference to the required pressure so that you do not under process your food.
      *For example, if the **Master Gauge** reads 11 psi and **your gauge** reads 12 psi (1 pound higher), then you must process at 12 psi when the recipe says 11. If your gauge reads 13 psi when the Master Gauge reads 11 psi, then you must process at 13 psi when the recipe calls for 11 – and so forth.*

    - If your gauge reads up to 2 pounds lower than the Master Gauge, you may subtract the amount by which it differs from the required pressure.
      *For example, if the **Master Gauge** reads 11 psi and **your gauge** reads 10 psi (1 pound lower), then you may process at 10 psi when the recipe says 11 psi. You may also use the pressure stated in the instructions for added safety.*

**If your gauge is off by more than 2 pounds in either direction from the Master Gauge,** it should be replaced.

**At the end of the canning season.** At the end of every canning session, **wash the canner** thoroughly, but don't put the cover in water because this will damage a dial gauge and may cause vents to become clogged. Never run water over the dial gauge. Wipe the cover with a soapy cloth and then with clean damp one.

**Clean the vent pipe** by drawing a pipe cleaner or string through. Wash gasket and dry with a soft cloth.

**Store a canner carefully.** Make sure it is clean and dry before you put it away at the end of the season. Crumple newspapers inside the canner to absorb moisture and odors. Some manufacturers recommend turning the cover upside down on the canner. This is designed to prevent odors in the canner and to protect the valves and gauge.

**Follow the manufacturer's** directions for care of the sealing edges of your canner.

**The darkened surface** on the inside of an aluminum canner can be cleaned by filling it above the darkened line with at mixture of 1 tablespoon cream of tartar to each quart of water. Place the canner on the stove, heat water to a boil, and boil covered until the dark deposits disappear. Sometimes stubborn deposits may require the addition of more cream of tartar. Empty the canner and wash it with hot soapy water, rinse and dry. (Hint: deposits from hard water may be reduced if you add 1 tablespoon of white vinegar to the water in the canner while you process your jars.)

Once your canner is properly stored, take time to **inventory jars and two piece lids**. If properly used and stored, jars can last indefinitely. As you empty jars during the winter, check for any chips or breaks, wash and store in a safe place. Two-piece lids consist of a flat metal disc and a separate metal screw band. After canning, screw bands should be removed once the jars have sealed, instead of leaving them on the jars during storage. Wash and dry the screwbands completely and put them away in a dry place. Bands can be used over and over, unless they rust. The flat lid is used only once and then discarded after the jar of food is opened.

Designate a clean and dry storage area for your canning equipment and utensils. Use clear storage boxes, stackable racks, and other organizer accessories to make a food preservation storage center. Come spring, you'll be ready for another year!
Archived here: www.foodsafety.wisc.edu; Topics A-Z; Canners

## Food Safety for Infants: Honey Can Have an Unsuspected Sting

**The newspaper** related the story of a young mother, asked by her doctor,
*"What does your little girl eat for breakfast?"*
*"Only hot oatmeal with milk,"* the young mother answered.
*"Does she put any sugar on it?"* the doctor queried.
Now the lady became indignant. *"We eat only whole, natural foods. No meat, no processed food, no sugar. Sugar is poison. We put only natural honey on the oatmeal."*
And with those words the woman confirmed the **doctor's suspicion**. The little girl's baby brother, who had been brought to the hospital suffering from some mysterious ailment, had **botulism poisoning**.

The 3-month-old baby had suddenly stopped nursing, and within four days his body became progressively floppy. By the time he was brought to the emergency room, he was practically lifeless. At first doctors suspected spinal muscular atrophy, a rare neurological disease that is essentially a death warrant. But it doesn't usually come on so suddenly. Such a rapid onset of symptoms smacked of poisoning of some sort. Botulism would explain the muscular flaccidity, but how could it be, if the mother was unaffected? She swore that the baby had no food other than breast milk. The doctor, however, was not so sure. That's what prompted the questions about the boy's sister. Yes, the little girl did like to help with the baby, the mother divulged; sometimes she even pretended to feed him with an empty spoon. Now the lights flashed in the physician's mind. When the parents weren't watching, the little girl probably did more than pretend and treated the baby to a bit of her honey-laced oatmeal. Unfortunately, the honey was likely laced with spores of ***Clostridium botulinum***; and those spores could produce toxin in the infant's immature intestinal tract.

Laboratory results confirmed the presence of the botulism toxin in the baby's serum and feces and spores in the jar of honey. The little boy eventually recovered, although he spent five weeks on a respirator.

That's what botulinum toxin can do. The spores of ***Clostridium botulinum*** are everywhere. They're in the soil, in the air and in the pollen and nectar the bees gather. While adults don't have to worry about botulinum spores germinating in the digestive tract (it's too acidic), infants under 1 year of age don't have fully developed digestive systems and the spores can survive and produce the often-fatal toxin. And both adults and children do have to be concerned about eating food in which spores have germinated and produced their toxin. Foods implicated in foodborne illness outbreaks in older children and adults have included **improperly canned food, meats not properly cured (i.e. sausages without proper nitrite), garlic-in-oil mixtures, improperly refrigerated baked potatoes, mushrooms,** and **cooked onions,** and **even improperly handled frozen foods**.

**UWEX Recommends: Adults should avoid feeding honey or syrup (including corn syrup) to children – for the first year. Honey as an ingredient in cookies or crackers does not seem to present a problem. Honey and syrups can contain spores of *Clostridium botulinum*. The immune systems of adults and older children can prevent the spores from growing once ingested. However, in an infant, these spores can grow and cause infant botulism.**

## Care and Cleaning of Butcher Blocks and Wooden Cutting Boards

**A** wood butcher block can be a prized possession. It can take much hard wear and tear, be resurfaced or repaired, and continue looking good for many years. If you have recently purchased or acquired a new butcher block, be sure to season it to prevent staining and absorption of food odors.

**Seasoning.** A mineral oil finish is preferable to polyurethane or varnish for seasoning a wooden butcher block because the oil finish is easy to maintain and to repair if the wood surface is damaged. An oil finish helps to prevent the wood from cracking or pulling apart at the seams. Mineral oil is preferred for seasoning wooden butcher blocks. Boiled linseed oil will also work but it may turn rancid.

Before applying oil to butcher block, warm the oil slightly. Apply oil with a soft cloth, in the direction of the grain, allowing the oil to soak in between each of the four or five coats required for the initial seasoning. After each treatment, wait about four to six hours and wipe off oil that did not soak into the wood. Re-oil the butcher block monthly, or as often as needed.

Wood butcher block counters have all the characteristics of solid wood. They will shrink or expand as the moisture content of the wood changes. Extreme dryness may cause cracks. Any cracks that appear should be filled with wood filler, sanded smooth, and the entire block given a good coat of oil.

**Use.** Avoid cutting raw meat or poultry directly on a butcher block or wooden cutting board. Instead, place a plastic cutting board on the wooden surface and use the plastic board as the cutting surface. This will protect the wood and prevent it from becoming contaminated.

Cooked meats, fruits and vegetables can be cut on a wooden surface, but remember that the action of the knife will score the wood, making the surface hard to clean. To best protect the wood surface, use an inexpensive plastic cutting board instead – replacing the plastic cutting board as it becomes marked. Wood surfaces that have become deeply scored from knife marks should be sanded and refinished.

**Cleaning.** Oil finished butcher block tops may be cleaned as any other table top. A damp cloth with a detergent may be used; followed by a damp cloth to remove the detergent. Excessive water should be avoided. All water should be wiped up immediately. Wooden blocks or boards can be sanitized after cleaning. Dip in a dilute bleach solution (1 teaspoon of bleach per quart of water) or spray the surface. Allow to air dry. Do not use higher concentrations of bleach as this will dry the wood surface, causing cracks to form and creating places for bacteria to hide. Repeated use and cleaning will remove the oil finish. You should plan to re-oil the surface as often as needed. Archived here: www.foodsafety.wisc.edu/ Topics A-Z; Cutting Boards

## Make Every Month Food Safety Education Month

September might be national food safety education month, but our food safety educational efforts continue year round. National efforts this year will focus on the importance of hand washing to prevent viral illnesses. Resources in this area, and others, can be found here: http://www.foodsafety.wisc.edu/HotTopics/National_Food_Safety_Education_Month.html

Resources that might be of interest include special handouts in these areas:

- **Food Safety for Moms-to-Be**
- **Food Safety for People with Cancer**
- **Food Safety for People with Diabetes**
- **Food Safety for Persons with AIDS**
- **Food Safety for Seniors**
- **Food Safety for Transplant Recipients**

**Looking for helping in answering food safety questions?** Try the **Food Safety & Health** **Topics A-Z index.** You will find important articles from past newsletters, links to government and extension resources, and answers to many of your food safety questions. Why not give it a try, it's just a click away: **www.foodsafety.wisc.edu.**