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Yersiniosis and Chitterlings:

Tips to Protect You and Those You Care for from Foodborne Illness

Chitterlings are a popular dish served in many parts of the United States. Also called "chitlins," they are the large intestines of swine. Some people consider them a delicacy; while for others who grew up eating them, they are a comfort food. Eaten all year long, chitterlings are especially popular during the Thanksgiving, Christmas, and New Year's holidays.

When planning a meal for your family that includes chitterlings, it is important to follow safe food handling practices to prevent infection from *Yersinia enterocolitica* and other foodborne pathogens. Chitterlings, also called "chitlins," are the large intestines of swine.

The preparation of chitterlings is a labor-intensive process that lends itself to the cross-contamination of kitchen countertops, cutting boards, and utensils. Chitterlings can be contaminated with the bacteria *Yersinia enterocolitica* and other foodborne pathogens such as *Salmonella*, so it is important to handle this product safely.

Q. What is *Yersinia enterocolitica*?

A. *Yersinia enterocolitica* is a bacteria that can cause diarrheal illness in humans. Infections caused by this bacteria are called yersiniosis. Swine and meat products from swine are the primary source of illness in humans.

Q. What are the symptoms of yersiniosis?

A. Symptoms can include watery diarrhea, abdominal pain, headache, fever and vomiting. Young children, older adults, pregnant women, and people with a weakened immune system may experience a more severe illness. Abdominal pain may be confused with appendicitis. Illness in immunocompromised individuals can lead to arthritis, meningitis, and inflammation of the skin (erythema nodosum).

Q. How do people get yersiniosis from chitterlings?

A. People can get yersiniosis from the cross-contamination of food contact surfaces, such as countertops, cutting boards, utensils. Infants can get yersiniosis if their family members or caretakers handle raw chitterlings and do not adequately wash their hands before handling the infant or the infant's toys, bottles, or pacifiers. Cross-contamination can occur if family members or caretakers preparing the chitterlings are also caring for infants and small children at the same time. It is very important that safe food handling practices are followed during the preparation of this product to protect you and those you care for from illness.

Q. How can consumers prevent getting yersiniosis from chitterlings?

- A.** Tips for safely preparing chitterlings for your family this holiday season:
- Boil raw chitterlings for 5 minutes before cleaning and cooking. Studies conducted by the Georgia Department of Human Resources Division of Public Health found that including this step in the preparation of chitterlings kills pathogenic bacteria without changing the flavor.
 - Thoroughly wash hands with soap and warm water for a full 20 seconds before and after the preparation of chitterlings.
 - Wash utensils, cutting boards, dishes, and countertops with hot soapy water after preparing each food item and before you go on to the next item. Countertops, equipment,

utensils and cutting boards can be sanitized with a solution of 1 tablespoon of unscented, liquid chlorine bleach in 1 gallon of water. Flood the surface with the bleach solution and allow it to stand for several minutes. Rinse with clear water and air dry or pat dry with clean paper towels.

- During preparation of chitterlings, caregivers should find others to assist with care of infants and small children to prevent cross-contamination and infections.
- Keep children out of the kitchen when chitterlings are being prepared.

Q. What should I do if I think I have, or someone in my family has, yersiniosis?

A. Call your doctor, nurse, or health clinic if you suspect you may have a foodborne illness.

To protect yourself and those you care for from foodborne illness, always follow the Fight BAC!® principles:

CLEAN: Wash Hands and Surfaces Often

Bacteria can spread throughout the kitchen and get onto cutting boards, utensils, and countertops.

- Wash your hands for 20 seconds with warm soapy water before handling food and after using the bathroom, changing diapers, and handling pets.
- Wash utensils, cutting boards, dishes, and countertops with hot soapy water after preparing each food item and before you go on to the next item.
- Consider using paper towels to clean kitchen surfaces. If you use cloth towels, wash them often in the hot cycle of your washing machine.

SEPARATE: Don't Cross-contaminate

- Separate raw meat, poultry, and seafood from other foods in your grocery shopping cart and in your refrigerator.
- If possible, use different cutting boards for raw meat products and vegetables.
- Wash cutting boards, dishes, countertops, and utensils with hot soapy water after they come in contact with raw meat, poultry, and seafood or their juices.
- Never place cooked food on a plate which previously held raw meat, poultry, or seafood.

COOK: Cook to Safe Temperatures

Use a clean food thermometer when measuring the internal temperature of meat, poultry, casseroles, and other foods to make sure they have reached a safe minimum internal temperature (see chart).

- Cook food to a safe minimum internal temperature. Use a food thermometer to check the internal temperature.
- When cooking food in a conventional oven, set the oven temperature to at least 325 °F.
- Boil chitterlings in water for 5 minutes BEFORE cleaning; then proceed with cooking.

CHILL: Refrigerate Promptly

Refrigerate foods quickly because cold temperatures keep harmful bacteria from multiplying.

- Refrigerate or freeze perishables, prepared foods, and leftovers within 2 hours (1 hour if the temperature is above 90 °F).
- Set your refrigerator at 40 °F or below and the freezer at 0 °F or below. Check these temperatures occasionally with an appliance thermometer.
- Thaw food in the refrigerator, in cold water, or in the microwave. Foods should not be thawed at room temperature. Foods thawed in the microwave or in cold water must be cooked immediately to a safe minimum internal temperature before refrigerating.
- Marinate foods in the refrigerator. Discard any uncooked leftover marinade.
- Divide large amounts of leftovers into shallow containers for quick cooling in the refrigerator.
- Don't over pack the refrigerator. Cold air must circulate to keep food safe.

For more information about yersiniosis, visit: www.cdc.gov/ncidod/dbmd/diseaseinfo/yersinia_g.htm

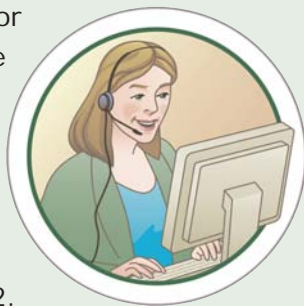
Food Temperatures When Cooking at Home

Food	Internal Temperature
Chitterlings	Boil in water for 5 minutes BEFORE cleaning; then proceed with cooking.
Ham	Fully Cooked -- 140 °F Fresh or Cook Before Eating -- 160 °F Reheated -- 165 °F
Pork: Chops, Roasts, and Steaks	160 °F
Beef, Veal and Lamb: Chops, Roasts, and Steaks	Medium Rare -- 145 °F Medium -- 160 °F Well Done -- 170 °F
Ground Beef, Veal, Lamb, Pork; or liver and tongue	160 °F
Roll, Tenderized or Scored cuts of Beef, Veal and Lamb	160 °F
Egg Dishes	160 °F
Casseroles/Combination Dishes/Leftovers (including Gravy)	165 °F
Ground Poultry (Turkey and Chicken)	165 °F
Chicken, Turkey, Duck, or Goose	165 °F
Stuffing (Cooked alone or in a bird)	165 °F

Food Safety Questions?

Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry, or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline (1-888-674-6854)**; TTY: 1-800-256-7072.



The Hotline is open year-round Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at www.fsis.usda.gov.

Send E-mail questions to MPHotline.fsis@usda.gov.

Ask Karen!

FSIS' automated response system can provide food safety information 24/7.



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