CFSAN Consumer Research and Education
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CFSAN Consumer Research

CFSAN scientists regularly research consumer knowledge, attitudes, and behaviors on food and nutrition issues.

Understanding consumers’ attitudes, beliefs, and current food handling practices helps FDA design effective education materials.
Food Safety Survey

FDA has been periodically surveying consumers about food safety since 1988:

- Self-reported behavior
- Likelihood of getting sick from food
- Knowledge about germs, who is at risk, food technologies
- Self-reported foodborne illness and food allergies
Food Safety Survey

Findings from the survey are used in many ways:

- Identifying trends in safe food handling behaviors
  - Healthy People 2020: Increase the proportion of consumers who follow key food safety practices

- Exploring emerging food safety issues
  - Food technologies, food safety cooking instructions

- Developing consumer education materials
  - What groups should we target and how?
Key Points from 2016 Food Safety Survey

- Consumers have relatively high levels of confidence in their food handling behaviors and the safety of the food supply, and are not too concerned about getting a foodborne illness.

- Consumers have a good understanding about many food safety practices, such as the value of handwashing and washing cutting boards.

- At the same time, consumers also have some incorrect beliefs and practices, especially related to washing chicken and food thermometers.
In all survey years shown, about half of all respondents thought that it is “Not very common” for people to get food poisoning because of the way food is prepared in their home.
In all survey years shown, over half of all respondents thought that it is “More common” for people to get food poisoning from restaurants compared to food prepared at home.
Animal protein foods are considered more likely to have germs compared to fruits or vegetables.

**Percent of respondents in 2016 who thought that each food was “very likely” to have germs**

- Chicken: 66%
- Beef: 41%
- Shellfish: 41%
- Eggs: 34%
- Fish: 31%
- Fruit: 9%
- Vegetables: 7%
In all survey years, more respondents have heard of *Salmonella* and *E. coli* as problems in food than *Listeria* or *Campylobacter*.

Have you ever heard of [ ] as a problem in food?

- **Salmonella**
  - 2006: 86%
  - 2010: 94%
  - 2016: 93%

- **E. coli**
  - 2006: 85%
  - 2010: 90%
  - 2016: 89%

- **Listeria**
  - 2006: 30%
  - 2010: 37%
  - 2016: 58%

- **Campylobacter**
  - 2006: 13%
  - 2010: 13%
  - 2016: 16%
Three quarters say they always wash their hands with soap before preparing food.

Before you begin preparing food, how often do you wash your hands with soap?

- All of the time: 75% (2006), 78% (2010), 75% (2016)
- Most of the time: 19% (2006), 16% (2010), 18% (2016)
- Some of the time: 5% (2006), 4% (2010), 5% (2016)
- Rarely: 1% (2006), 1% (2010), 1% (2016)
The percent who *never* use a food thermometer for chicken parts decreased significantly since 2006, but remains high.*

How about chicken parts, such as breasts or legs -- how often do you use a thermometer when you cook chicken parts? Would you say...

*Asked of those who have a food thermometer and prepare raw meat/chicken.

*Always* | *Often* | *Sometimes* | *Never* | *Never cook the food*
---|---|---|---|---
15% | 11% | 22% | 51% | 1%
17% | 11% | 26% | 46% | 0%
19% | 13% | 26% | 40% | 1%
Upcoming Consumer Research

- Recall information
- Chemical contaminants
- Food allergens
- Calorie labeling on menus
- Nutrition Facts label
- Food Safety and Nutrition Survey is being developed
  - Data to be collected in late 2019
CFSAN Education and Outreach Goals

- Sustained education that focuses on developing strategies and activities that help motivate the public to make health behavior changes.
- Increased efforts toward developing additional collaborative activities and meaningful partnerships to leverage FDA’s reach and resources to grow and sustain these partnerships.
**Planning**
- Educational goals established
- Process for development established
- Formative research: target audiences and outreach tactics identified

**Development and Testing**
- Concepts developed and refined
- Tested with focus groups or surveys
- Materials developed
- Materials vetted internally and cleared

**Deployment**
- Materials released publicly and promoted with social media messages and partner outreach
- Evaluation tracked through impressions, downloads, and sometimes surveys or other research methods
Every Day Food Safety (for Young Adults)

**Play it Safe with Ready-to-Eat Foods**
Food that is ready to eat as purchased and requires no additional prep—like yogurt, carrots, sandwiches, and packaged salad—should be kept cold or refrigerated. And, storing these foods safely can mean the difference between a good day and a bad case of food poisoning. Here’s how to stay most safe when storing and eating ready-to-eat foods:

**CHILL IT OUT: USING YOUR FRIDGE AND FREEZER**
Storing cool means what it says in Texas. Refrigerate foods such as produce, meats, eggs, dairy, and deli foods within 2 hours of purchase or 4 hours if kept in air temperatures above 90°F. Do not refrigerate small, sealed containers before making to keep them colder longer.

- Save space! Leave room for air to circulate between foods, in drawers or upper shelves for storing fresh and perishable items. Why? To keep them away from raw meat, poultry, seafood, and eggs which can cause cross-contamination.
- Take the temperature. Use an appliance thermometer to check that your fridge is set to 40°F or below and your freezer at 0°F or below. Keep refrigerators and freezers clean by washing the interior frequently with hot, soapy water.
- Use it or lose it. Ready-to-eat foods are safer when fresh or out of the refrigerator storage.

**CHECK YOUR SHELF: CABINET AND PANTRY STORAGE**
Keep unopened bags, boxes, cans, and jars at room temperature in a cool, dry place—above the stove, under the sink, or anywhere temperatures fluctuate.
- Meat, eggs, and bacon are shorter-shelf items that are sometimes damaged, generate toxins, or become stale, and any foods that have a best-by date.
- Thaw leftovers in the same food packaging, keeping separate from all other food containers. Remove the label if it’s not readable.

**Wash hands**
- Before and after preparation, making sure to wash with soap and warm water for at least 20 seconds.
- Make sure to wash your hands after touching raw meat, poultry, seafood, and eggs.

**Follow Food Safety in Seconds**
- Following these tips when buying and storing food can help prevent foodborne illnesses.

**DO**
- Keep produce separate from meat, poultry, seafood, and eggs in shopping carts and bags.
- Place meat, poultry, seafood, and eggs in plastic bags at checkout.
- Keep refrigerated and other ready-to-eat foods in a separate area of the refrigerator from meat, poultry, seafood, and eggs.
- Refrigerate food within 2 hours of grocery shopping, or 1 hour if kept in air temperatures above 90°F.
- Set refrigerator temperature to 40°F or below and freezer at 0°F or below (as indicated by an appliance thermometer).

**DON’T**
- Choose meat, poultry, or seafood in damaged or leaking packaging.
- Buy eggs with cracked shells or damaged cartons.
- Remove eggs from carton or keep in the refrigerator door.
- Place raw meat, poultry, or seafood on upper shelves of the refrigerator where they can drip onto other foods.
- Overfill the refrigerator or freezer.
- Thaw meat, poultry, or seafood on the counter.
Food Safety in Your Kitchen

**Food Safety in the Kitchen**

**Cooking with Nutritious Ingredients**

As a person who creates recipes, you can play an important role in health promotion by recommending ingredients and cooking methods that support a nutritious diet. Here are a few tips for integrating each of the five food groups into your recipes and some ideas for alternatives to common ingredients.

**Fruits and Vegetables**

- Whole Grains
  - Whole grains such as brown rice, quinoa, barley, and bulgur provide fiber and important nutrients. According to the MyPlate, whole grain intake may reduce the risk for heart disease and may also help with weight management.

**WHOLE GRAINS**

- Include whole grains in your recipes.
- Replace 1/2 cup of whole flour with 1/2 cup of whole grains in recipes for baked goods.
- Creating new variations of salads and soups by adding whole grain ingredients.
- Include 100% whole grain breads and pastas as alternatives.

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**Directions**

1. Preheat grill pan or oven broiler with the rack 3 inches from heat source on high temperature.
2. Wash hands for at least 20 seconds with soap and water before opening. Drain and rinse chickpeas.
4. Rinse and drain tuna on high heat for 3-4 minutes on each side until the flesh is opaque and separates easily with a fork (to a minimum internal temperature of 145°F).
5. Serve 1 tuna steak over 1 cup of mixed salad. Serve with lemon juice.
6. Within 2 hours, divide leftovers into shallow, sealed containers and place in a refrigerator at 40°F or below (as indicated by an appliance thermometer). Do not freeze at 0°F or below.

**Nutrition Information**

- **Calories:** 282
- **Total Fat:** 10 g
- **Saturated Fat:** 2 g
- **Total Carbohydrate:** 15 g
- **Protein:** 31 g
- **Sodium:** 451 mg
- **Dietary Fiber:** 5 g

**Grilled Tuna with Chickpea and Spinach Salad**

Tuna is delicious when grilled or brained and nutritious when prepared with food safety in mind!

**Prep Time:** 25 minutes  **Cook Time:** 26 minutes  **Yield:** 4 servings  **Serving size:** 1 tuna steak, 1C salad

**INGREDIENTS**

- 1 tbsp olive oil or canola oil
- 1 tbsp garlic, minced
- 1 medium tomato
- 2 tsp lemon juice
- 1 tsp dried oregano
- 12 oz tuna steak, cut into 6 portions (2 oz each)

**For salads**

- 3/4 bag (10 oz) of spinach
- 1/2 cup (11/2 oz) low-sodium chicken or vegetable broth
- 1/4 tsp salt
- 1/8 tsp pepper
- 1 tsp lemon juice

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**Safe and Nutritious Tips for Cooking at Home**

- Use safe and healthy fats in cooking.
- Use safe and healthy oils in cooking.
- Use safe and healthy cooking methods.
- Use safe and healthy utensils and tools.
- Use safe and healthy storage.

**More Videos**

- [FDA Video](https://www.fda.gov/food/smart-eating/safe-and-nutritious-tips-for-cooking-at-home)
Resources for Professionals

The Consumer Food Safety Educator EVALUATION TOOLBOX & GUIDE

Overview

Each year, 1 in 4 Americans gets sick by consuming contaminated foods or beverages. Of these, 128,000 are hospitalized and 3,000 die.

The cause of illness in your patient is not always clear. By conducting a thorough history and physical exam, and ordering appropriate lab tests, you can narrow the diagnosis and appropriate treatment.

A number of diagnostic tests—such as a stool culture, blood test, or examination for parasites—are available to help you determine the cause of a suspected foodborne illness.

Full information on the processes involved in diagnosing and treating foodborne diseases is available in the Center for Disease Control and Prevention’s CDC (Diagnosis and Management of Foodborne Illnesses) report.

Recognizing Foodborne Illness

KNOW THE SIGNS

Because patients get foodborne illness when they consume contaminated food or beverages, the most common symptoms will be gastrointestinal in nature:

- Nausea
- Vomiting
- Abdominal pain
- Diarrhea