

# Barnstable County

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REGIONAL GOVERNMENT OF CAPE COD

CAPE COD COOPERATIVE EXTENSION

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NUTRITION & FOOD SAFETY SPECIALIST





# Food Safety Outreach and Opportunities in the Community



# Who am I?

- ❖ Cooperative Extension: Educational arm of Barnstable County, working with County and local health departments.
- ❖ Nutrition education: SNAP-ed programming to schools, Sr. Centers & PreK, food pantries and others.
- ❖ Food Safety Education: Consumer phone calls, volunteer food safety, integrated info into presentations and SNAP-ed materials.
- ❖ Food Business and Agriculture: Buy Fresh Buy Local CapeCod, MDAR, Community Development workshops
- ❖ Continually learning!

# Objectives

To summarize where different sectors of the community learn about food safety.

To understand where the gaps are and where misinformation comes from.

To discover sources of information and how they might integrate into both consumer and food establishment communities.

To have a goal of forming consistent and constant messaging- we can work together.



# Where do we learn about Food Safety?

## Confusion of food date label with food safety- implications for food waste

“sell by”

‘best by”

“use by”

“best before”

Don't necessarily mean the food is bad!

In the US, there are more than 50 types of date labels for food products but the only one regulated is really for infant formula. In the EU, UK, Australia and New Zealand there are only a few.



## Current Opinion in Food Science

Available online 29 August 2022, 100917

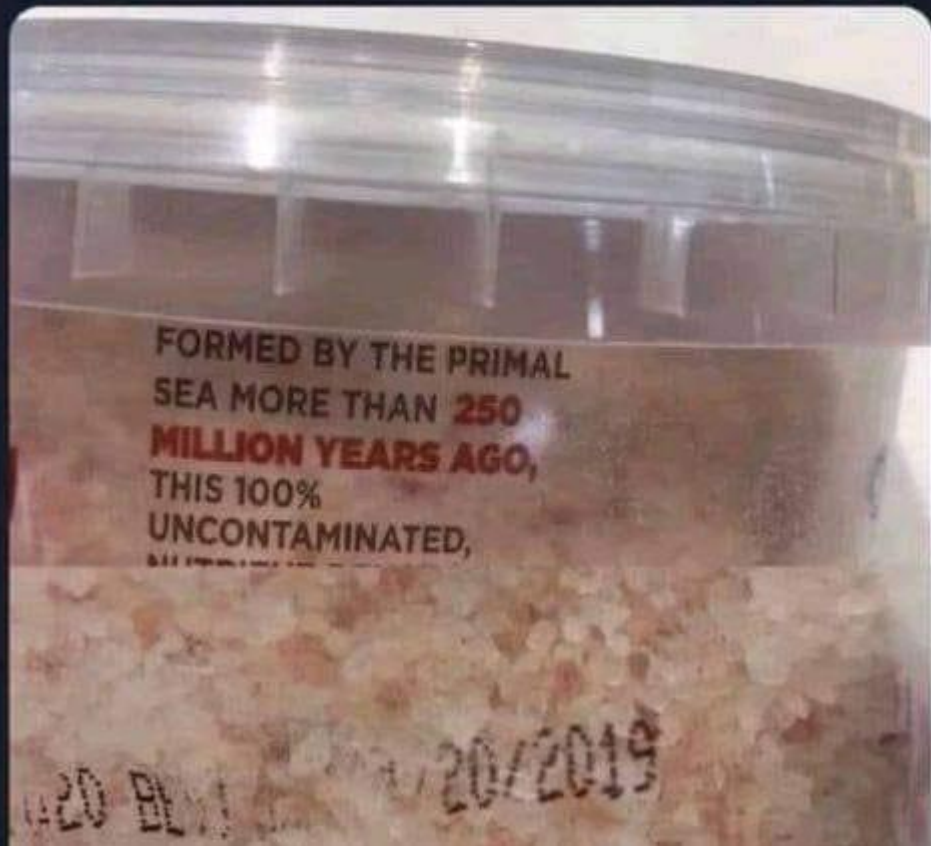
In Press, Journal Pre-proof ?



## Confusion of food date label with food safety-implications for food waste

Debasmita Patra <sup>1</sup>✉, Shuyi Feng <sup>2</sup>, Jeff W. Howard <sup>1</sup>

Dang, my 250 million year old salt  
has expired



EMPLOYEES MUST WASH HANDS  
· ————— ·  
CUSTOMERS CAN ROLL THE DICE



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# Are Television Cooking Shows Modeling Recommended Food Safety Practices for Consumers?

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# Methods

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Pilot episode viewed by raters and tested for Inter-Rater Reliability: Fleiss Kappa of 0.47

Changes made to 3 questions

19 question survey (adapted from MA Food Establishment Inspection Report)

Hygienic practices (9 items)

Use of utensils and gloves (3 items)

Protection from contamination (5 items)

Time and Temperature control (1 item)

Food Safety mentioned (1 item)

39 episodes rated; 5 raters, food safety educators MPFSE

If multiple practices seen, but was OUT once, rated as OUT

Frequency of shows that were IN OUT NA/NO

# Results

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Questions OUT of compliance > 60% of the time:

Clean clothing, 70%

Touching body during preparation and washing hands, 83%

Barriers used for RTE food, 85%

Food safety practices mentioned, 88%

Hair restrained, 88%

Handling of raw food, 91%

Fruits and vegetables washed, 91%

Hand washing, 93%

Times and temperatures shown or stated, 93%

Wiping cloths used and stored properly, 93%

Gloves worn, 100%

# Conclusion

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There is little focus on food safety during most cooking shows

Most episodes showed practices that were out of compliance with current recommendations

Celebrity chefs have the opportunity to reach millions of viewers and teach good food safety practices

There are many steps that shows can use to improve modeling of food safety for viewers

Rating cooking shows can be a useful tool in training and education

# Where are the Gaps to food safety education?

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Public perception



No 'home economics'



Old science



Food Code-  
For everyone?



Staff?

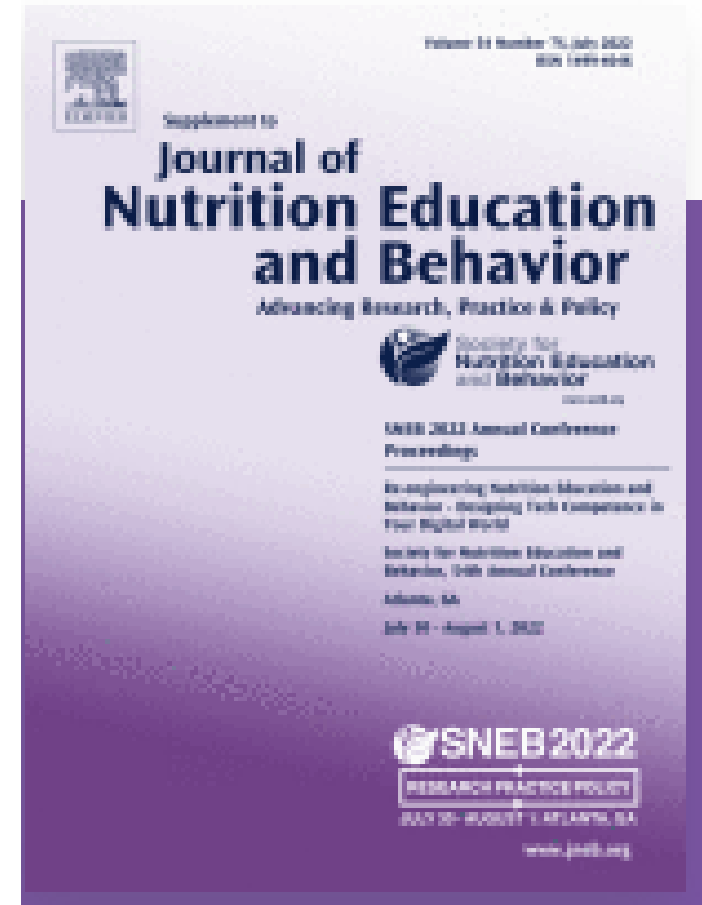


The EatFit Curriculum was adapted for online delivery to 855 middle school students in 6 lessons.

One significant outcome was a 51% improvement in food safety practices as determined from pre/post program surveys completed by 284 students.

**Imagine if we still had Home Economics classes! This could be one missing link in consumer food safety knowledge.**

[https://www.jneb.org/article/S1499-4046\(22\)00295-0/fulltext#relatedArticles](https://www.jneb.org/article/S1499-4046(22)00295-0/fulltext#relatedArticles)



# Resources to address Consumer Knowledge of Food Safety



## COOK



### Safe Cooking Guidelines

#### SAFE MINIMUM INTERNAL TEMPERATURES as measured with a food thermometer

Beef, pork, veal and lamb (roast, steaks and chops)	145° F with a three-minute "rest time" after removal from the heat source
Ground meats	160° F
Poultry (whole, parts or ground)	165° F
Eggs and egg dishes	160° F, but cook eggs until both the yolk and the white are firm; scrambled eggs should not be runny
Leftovers	165° F
Finfish	145° F

#### GUIDELINES FOR SEAFOOD

Shrimp, lobster, crabs	Flesh pearly and opaque
Clams, oysters and mussels	Shells open during cooking
Scallops	Milky white, opaque and firm

#### THE FOUR WAYS TO FIGHT BAC



**Partnership for Food Safety Education**  
We develop and promote effective education programs to reduce foodborne illness risk for consumers.

**WWW.FIGHTBAC.ORG**  
facebook.com/FightBAC  
twitter.com/FightBAC

If you don't have time for this...

...you definitely don't have time for this!



Take a few minutes for food safety! [www.fda.gov/food](http://www.fda.gov/food)

### RULES of the GAME for Food Safety

#### Keep it clean

Before you eat or handle food, wash your hands, food prep tools and surfaces.



#### Cook to the right temperature

Use a food thermometer to check that foods are cooked to the right temperature:  
165°F for chicken and 160°F for ground beef.



#### Watch the clock

Throw out perishable food that has been sitting at room temperature for more than two hours; one hour if it's 90°F or warmer.



#### Serve at the right temperature

Keep hot foods at 140°F or warmer, and cold foods at 40°F or colder.



[www.cdc.gov/foodsafety](http://www.cdc.gov/foodsafety)

OUTWEP-18

## SAY NO TO RAW DOUGH



[www.fightbac.org/kids](http://www.fightbac.org/kids)

# How to use consumer food safety resources for education



- Post on website
- Twitter
- Facebook
- Printed in office
- Fairs
- Senior Centers
- Public Safety Events
- Holiday Bazaars



Consumers as food  
producers-

Do it safely...



**National Center for Home Food  
Preservation**

Search



## Serving You

The National Center for Home Food Preservation is your source for current research-based recommendations for most methods of home food preservation. The Center was established with funding from the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture (CSREES-USDA) to address food safety concerns for those who practice and teach home food preservation and processing methods. [Read More](#)





Ready to Distribute  
materials On Food Safety....

For Consumer AND  
Food Service

At Food Safety classes,  
Volunteer led venues,  
Health departments,  
Websites, Inspections...



[www.mafoodsafetyeducation.info](http://www.mafoodsafetyeducation.info)

Food Safety Resources from Farm to Table

Food Safety in the **HOME**

Food Safety in the **WORKPLACE**

**CLEAN**

**SEPARATE**

**COOK**

**CHILL**



All food safety education materials are consistent with Massachusetts Department of Public Health Bureau of Environmental Health Food Protection Program, US Food & Drug Administration and US Department of Agriculture regulations and messages.

Visit the Massachusetts Partnership for Food Safety Education website for:

- Easy to read fact sheets in multiple languages
- Food equipment and safety training videos
- Food safety in the workplace
- Food safety in home
- Teaching tips



Massachusetts Department of  
**ELEMENTARY & SECONDARY  
EDUCATION**

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**UMass  
Extension**

Provide at  
Trainings


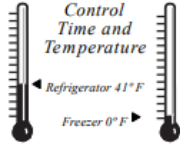
Great for  
Volunteers

Prevent the  
potluck FBI



## ***Food Safety for Food Workers***

Most foodborne illness can be avoided by handling food properly. Foods from animal sources and cooked beans, rice and pasta are especially risky. These foods are "Time/Temperature Control Safety (TCS) Food". Follow these basic food safety principles and practices to keep the food you prepare and serve safe to eat. These recommendations are consistent with the FDA 2013 Food Code.

<i><b>STAY HEALTHY</b></i>		
<b>Key Principle</b>	<b>Hazard</b>	<b>Food Safety Message</b>
<i>Be in Good Health</i>	Microbiological Contamination	<ul style="list-style-type: none"><li>• Don't prepare food when you are ill or have an open cut or sore on your hands or arms.</li><li>• Report illnesses to the manager.</li><li>• Avoid coughing and sneezing in food areas.</li></ul>
 <i>Practice Good Personal Hygiene</i>	Microbiological Contamination	Always wash your hands after you: <ul style="list-style-type: none"><li>• use the restroom.</li><li>• cough, sneeze, or use a handkerchief or tissue.</li><li>• work with raw foods.</li><li>• handle dirty equipment or utensils.</li><li>• take out the garbage.</li></ul>
	Cross-contamination	<ul style="list-style-type: none"><li>• Use a designated hand sink.</li></ul>
	Physical Contamination	<ul style="list-style-type: none"><li>• Wear clean clothing on the job.</li></ul>
	Microbiological and Physical Contamination	<ul style="list-style-type: none"><li>• Wear effective hair restraint while working in a food preparation area.</li><li>• Don't eat, drink or smoke while preparing food.</li><li>• Keep nails trimmed.</li></ul>
<i><b>CONTROL TIME AND TEMPERATURE</b></i>		
<b>Key Principle</b>	<b>Hazard</b>	<b>Food Safety Message</b>
 <i>Control Time and Temperature</i> <i>During Receiving</i>	Bacterial Growth, Toxin Production	Keep foods out of the "Danger Zone": 41°F - 135°F <ul style="list-style-type: none"><li>• Use a calibrated food thermometer to check food temperatures.</li></ul> Receive and store food at proper temperatures <ul style="list-style-type: none"><li>• Refrigerated foods at 41°F or below.</li><li>• Frozen foods at 0°F or below.</li></ul>
<i>During Preparation</i>	Bacterial Growth, Toxin Production	Thaw frozen foods in: <ul style="list-style-type: none"><li>• Refrigerator.</li><li>• Potable cold running water below 70°F for 2 hours or less.</li><li>• Microwave oven followed by cooking or as part of the cooking process.</li></ul>



# IN THE WORKPLACE

[About Us](#)[Helpful Links](#)[FAQ](#)[Multi-Language Publications](#)[Food Safety in the Home](#)[Food Safety in the Workplace](#)[Food Safety for Food Workers](#)[Food Equipment & Safety Training \(FEAST\)](#)[Additional Publications](#)[Food Safety from Farm and Garden to Preschool Online Course](#)[Clean](#)[Separate](#)[Cook and Chill](#)

## Food Safety for Food Workers

This series of mini-lessons is designed for food service managers to train workers using the Food Safety for Food Workers pamphlet and accompanying posters. Lessons are short and include tips for discussing and demonstrating each of the four basic food safety concepts.

- [Control Time & Temperature - poster](#)
- [Control Time & Temperature - teaching tips \(PDF\)](#)
- [How to Sanitize by Hand with Chemical Sanitizers - poster](#)
- [How to Sanitize by Hand with Chemical Sanitizers - teaching tips](#)
- [Keep Pests Out of Your Kitchen - poster](#)
- [Keeping Pests Out - teaching tips](#)
- [Employees Must Wash Hand - poster](#)
- [Wash Hands - teaching tips](#)
- [Food Safety for Food Workers - guide](#)







# IN THE WORKPLACE

[About Us](#)[Helpful Links](#)[FAQ](#)[Multi-Language Publications](#)[Food Safety in the Home](#)[Food Safety in the Workplace](#)[Food Safety for Food Workers](#)[Food Equipment & Safety Training \(FEAST\)](#)[Instructional Materials](#)

## Overviews

[Introduction](#)[Electric Overview](#)[Gas Overview](#)[Personal Dress & Hygiene](#)

## Food Preparation

[Commercial Can Opener](#)[Food Cutter & Choppers](#)[Food Mixer](#)[Slicer](#)[Vertical Cutter Mixer \(VCM\)](#)

## Cooking Equipment

## Food Slicer

### Food Slicer Video

[Video Transcript - Slicer \(PDF\)](#)

### Purpose

Cut slices of the same thickness.

### Equipment Safety Precautions

### Translations

[Chinese - Slicer \(PDF\)](#)[English - Slicer \(PDF\)](#)[Greek - Slicer \(PDF\)](#)[Polish - Slicer \(PDF\)](#)[Portuguese - Slicer \(PDF\)](#)[Russian - Slicer \(PDF\)](#)[Spanish - Slicer \(PDF\)](#)[Vietnamese - Slicer \(PDF\)](#)

The fact sheets and videos are general guidelines for equipment safety, operation and sanitation. Be sure to follow specific recommendations and procedures for equipment provided by the manufacturer and your school or workplace.



# Newly Designed Massachusetts Food Processors Resource Guide



\*pdf download at UMass CAFÉ  
Entrepreneur page

<https://www.mass.gov/forms/the-massachusetts-food-processors-resource-guide>

## TABLE OF CONTENTS

Chapter One: Guide Background →

Chapter 2: Performing Market/Consumer Research →

Chapter 3: Scaling Up, Where to Make Your Product, Licensing →

Chapter 4: Calculating Costs & Setting a Price →

Chapter 5: Food Safety Basics →

Chapter 6: Product Labeling, Regulations, & Label Design & Packaging →

Chapter 7: Developing a Business Plan, Registering a Business, Insurance →

Chapter 8: Marketing, Promotions, & Social Media →

Chapter 9: Sales, Brokers, Distribution, & Trade Shows →

Chapter 10: Resources →

Chapter 11: Resources for Women, BIPOC, & LGBTQ+ Entrepreneurs →

Chapter 12: Credits →

Entrepreneur

- Overview
- Starting a Small Food Business
- Groundwork for Business Success
- Business Plan
- Food Safety Planning**
  - Food Safety Plan**
  - Development
  - Food Safety Modernization Act (FSMA)
  - Current Good Manufacturing Practices (cGMP)
  - Preventive Controls
  - HACCP
- Production

Food Safety Plan



As you begin to develop your product for sale, remember that customers trust that you are preparing a safe, quality food. Steps toward manufacturing a safe product must be taken at each part of the development stage all the way to the customer.

\*Consumer









\*Entrepreneur

\*Farmer



# UMass Center for Agriculture, Food and the Environment.... C.A.F.E.

Table 1: Quick Guide of Food Product Regulations Requirements

PRODUCT	RESIDENTIAL KITCHEN	GMPS	USDA		FDA			
	Register with State FPP if Wholesale		Registration	HACCP	Registration	HACCP	Form 2541, 2541a	Process Authority
<b>Acid Foods - Vinegar</b> 		X			X			
 <b>Acidified Foods (Canned)</b>		X			X		X (Scheduled Process)	X
<b>Baked Goods (Non-PHF)</b>	X	X			X			
<b>Canned Meat Foods</b> 		X	X (if more than 3% meat)		X		X	X (If more than 3% meat)
<b>Dairy</b>		X			X			X
<b>Fermented Food</b>		X			X			
<b>Frozen Entrees</b>		X			X			
<b>Jams and Jellies</b> 		X			X			
<b>Juice</b> 		X			X	X		
 <b>Low Acid Foods (Canned)</b>		X			X		X	X
 <b>Meat and Poultry</b>		X	X	X		X		
 <b>Seafood</b>		X		X	X	X		

# A Key to Success: Collaboration



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-Countywide and/or statewide campaigns

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-Free info at Cooperative Extension and Federal websites.

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-What is the message to delivered? Let's create it and distribute it!

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-Work together- who do you interact with in other towns, councils, etc. who might be able to divide the workload.

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-Work with the FPP, UMass Food Science, MDAR and other available resources.

# 2016 Experiment

- 1 Announced Inspection and 1 Unannounced Inspection
- 24-hour notice prior to Announced Inspections
- Education during inspection when violation occurs or recommendation can be made
- Goals:
  - Address effectiveness of food service inspections
  - Improve foodborne illness factors
  - Improve inspector/management relationships

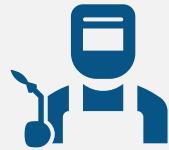


Announced	Unannounced
<b>126</b> Total Violations	<b>171</b> Total Violations
<b>50</b> Critical Violations	<b>115</b> Critical Violations
<b>76</b> Non-Critical Violations	<b>56</b> Non-Critical Violations

# Quick Results



# Lessons Learned



## Split reaction from managers and chefs:

Some do not see the point and prefer surprise inspections.

Others, appreciate the announced inspections to take the burden off by staffing an extra person when an inspector will be present to walk-through, answer questions and immediately respond to violations.



## Restaurants (not all) need more incentive to change behavior

# Lessons Learned

Consistent inspecting is important!!



Educational materials are welcomed and appreciated



Although more violations were recorded during unannounced inspections.  
The types of violations were consistent:

Employee cell phones on  
food prep areas

Screen doors/windows  
needing repairs or missing

General cleaning  
necessary



## NOROVIRUS

### What You Need To Know

#### THE RISK

Norovirus is the number 1 cause of disease outbreak from contaminated food in the US. It takes only a few virus particles to make the average person sick.

#### INFECTION RATES

Seventy percent of food handlers in the US are infected with Norovirus every year! That translates to 20 million Americans that become sick with Norovirus every year.

#### TRANSMISSION

Norovirus is found in the vomit and feces of infected people. It can be spread by coming into contact with an infected person, eating or drinking infected food and beverages, or touching surfaces with Norovirus on them.

#### EXPENSIVE ACCIDENTS

Norovirus cases can cost restaurants between \$2,000 to \$10,000,000 for lawsuits, legal fees, employee wages, fines, loss of business, insurance premiums, and more.

#### KEEP NOROVIRUS OUT

Keep Norovirus out of your kitchen by:

- Washing your hands thoroughly
- Handling food safely (freezing and cooking food does not kill the virus)
- Cleaning and disinfecting surfaces



FOR MORE INFORMATION VISIT: [WWW.BARNSTABLECOUNTYHEALTH.ORG](http://WWW.BARNSTABLECOUNTYHEALTH.ORG)

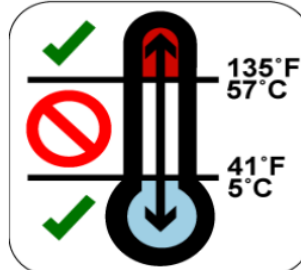
## HOLIDAY PREPARATIONS

### Potluck Safety Tips

Cape Cod Cooperative Extension  
Kim Concra  
[kconcra@barnstablecounty.org](mailto:kconcra@barnstablecounty.org)



Everyone loves a party! It's flu and cold season, so remember to use extra care when making food to share at a potluck. Don't cook if you are sick and please use these tips to make sure we don't pass along unwanted germs. Proper food handling is key to keeping food safe from foodborne pathogens, too. Keep food out of the temperature danger zone (41-135F) where these pathogens grow quickly.



Copyright © International Association for Food Protection

**3. Hot food Hot, Cold food Cold:** Keep foods hot at 135F or hotter and cold food cold with ice packs in a cooler for transporting so they stay 40F or colder.

**4. Beware the tasting spoon:** If you taste food as you're cooking, use a separate spoon for each taste. Plus, use a separate spoon for stirring and a fresh spoon for serving. Make sure each dish has a serving utensil or tongs.

**5. Put away food after two hours:** Bacteria that cause food poisoning can multiply rapidly at room temperature. After two hours, store leftovers in shallow containers in the refrigerator.



## Serve Shellfish Safely

Sirva mariscos con cuidado

Shellfish must remain cold  
Mariscos debe permanecer frío

Less than 41°F



Minimize handling outside of cold storage  
Minimizar el manejo fuera de almacenamiento frío

Contaminated shellfish  
can make you sick  
Mariscos contaminados pueden enfermarte



Wash hands before & after  
handling shellfish

Lave las manos  
antes y después de  
tocar mariscos



Wear gloves  
when handling  
Lleve guantes al  
manejar



Keep shellfish away from  
other food  
Separe mariscos de otra comida



Keep shellfish dealer tags  
Mantener mariscos etiquetas de venta



[www.whoi.edu/seagrant](http://www.whoi.edu/seagrant)



Cape Cod  
Cooperative Extension

# Proper Cooling of Food: Handout



## CAPE COD COOPERATIVE EXTENSION

P.O. Box 367 • Barnstable, MA 02530-0367 • TEL: (508) 375-6690 • FAX: (508) 362-4318 • www.capecodextension.org

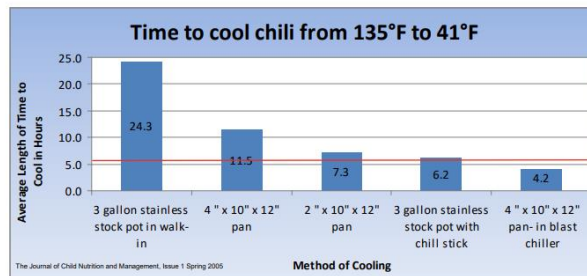
### PROPER COOLING OF FOOD

The FDA has identified improper cooling as one of the major causes of food borne illness. Bacterial growth slows in cold temperatures and are mostly dormant at 0 ° F. Cooking and reheating food to 165° F kills most bacteria. Foods kept in the temperature danger zone (41° F-135° F) encourages bacteria to grow quickly and can make people sick.

Cool food from 135° F to 70° F within 2 hours and from 70° F to 41° F or below within 4 hours to prevent the reproduction of pathogenic bacteria that may lead to food borne illness.



Dense foods like stew or chili and large amounts of food generally take longer to cool.

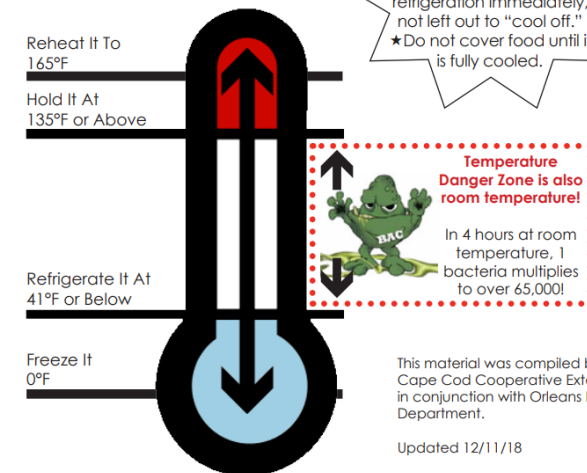


### TIPS FOR COOLING FOOD FAST

- ★ Split large amounts of food into smaller batches.
- ★ Roasts can be cut into smaller pieces.
- ★ Use shallow pans to reduce the depth of the food. Use stainless steel food containers instead of plastic.
- ★ Slide pans into a rack or place on a slotted shelf to allow air flow around the pan.
- ★ Use ice water baths for cooling. Stir the food often to cool quickly.
- ★ Use cold paddles. If available, use a "blast chill" unit.
- ★ Modify the recipe so that water can be added at the end in the form of ice made from drinking water.

#### REMINDERS

- ★ Do not place hot food next to any other food.
- ★ Food should go into refrigeration immediately, not left out to "cool off."
- ★ Do not cover food until it is fully cooled.



This material was compiled by the Cape Cod Cooperative Extension in conjunction with Orleans Health Department.

Updated 12/11/18

# Resources:

FDA: [Everyday Food Safety Resources for Health Educators | FDA](#)

CDC: [Infographics | Communications | Food Safety | CDC](#)

MPFSE: [Home | Massachusetts Partnership for Food Safety Education \(mafoodsafetyeducation.info\)](#)

Fight Bac [National Food Safety Education Month | Partnership for Food Safety Education \(fightbac.org\)](#)

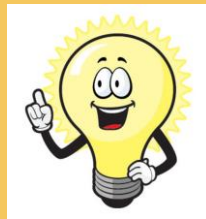
Food Preservation: [National Center for Home Food Preservation \(uga.edu\)](#)

Food Processors Guide(MA):

<https://www.mass.gov/forms/the-massachusetts-food-processors-resource-guide>

Cape Cod Cooperative Extension: Nutrition & Food Safety

[www.capecodextension.org](http://www.capecodextension.org)





# Thank You... For All You Do

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