



food Safety Booklet

Thanks and Appreciation

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May Allah bless them and their efforts.

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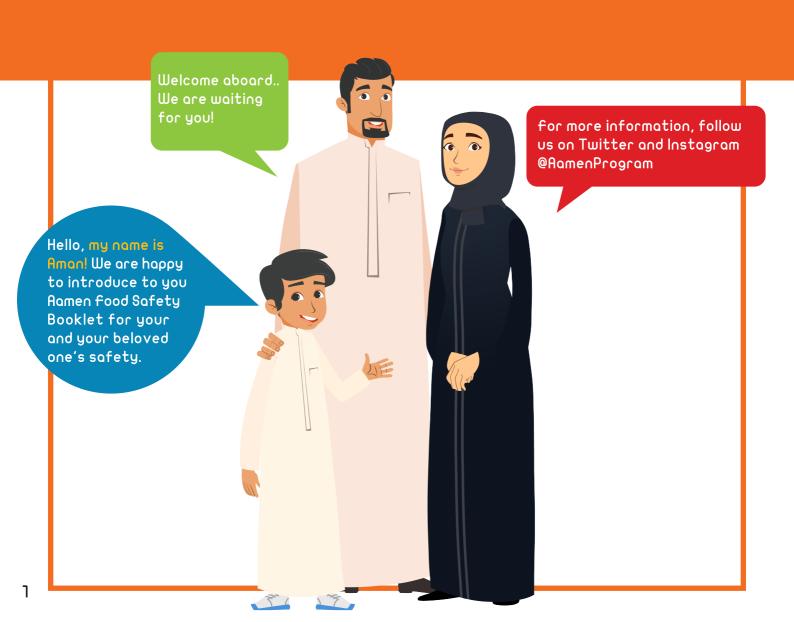
Introduction

food is an essential source of energy and nutritional support.

for something so vital for survival, it is important for us to understand how certain behaviors and activities contribute to the safety of our food and how good practices can decrease the risk of foodborne illnesses. From shopping to storing and cooking food, our awareness of basic food safety principles plays an important role for our own safety and the safety of our loved ones.

As part of our continuous commitment to the society we live in, we are presenting you with this basic food Safety Booklet. The objective of this booklet is to raise awareness of the importance of practicing the 4 steps of handling food safely - Clean, Separate, Cook and Chill - from the supermarket all the way to cooking and eating.

Join us, as we walk through this journey of learning food Safety with Aman and his family. We hope that this booklet will become an indispensable tool in your kitchen.



food Safety

food Safety refers to the correct practices of handling food, starting from producing all the way to consuming food, in order to avoid the risk of catching food Poisoning.





food Poisoning food Poisoning is a

foodborne illness caused by consuming contaminated food. Food can be contaminated with microbiological, chemical or physical substances. The most common symptoms of food poisoning are Diarrhea, Vomiting, Nausea, and others. The international statistical data states that almost one in ten people contract food Poisoning because of eating contaminated food. In 2017, around 3,200 food poisoning cases reported in Saudi Arabia, 30% of which was a result of contamination in home foods. In order to prevent the risk of food Poisoning, the 4 steps of safe food handling should be practiced: Clean, Separate, Cook and Chill.









The 4 Steps of Safe food Handling



Step (1) Clean

Maintaining Personal, Kitchen and food Hygiene



Step (2) Separate

Preventing Cross contamination by keeping raw food separate from cooked food



Step (3) Cook

Making sure that food is cooked at the right temperature for the right amount of time



Step (4) Chill

Storing food at a Safe Temperature





Step (1)

Clean



Wash your hands thoroughly before, during and after the preparation and consumption of food.



Take off any jewelry, put a cover on your hair, and ensure that your nails are clipped.



Wet your hands with clean, running water at a slightly warm temperature.





Lather soap on your hands and scrub them well together for at least 20 seconds. focus especially in the places between your fingers and under your nails.



Wash your hands well with clean, running water.



5 Dry your hands, preferably with tissue paper.







When to Wash Your Hands

Washing hands is important in day to day situations such as



after using the bathroom



after changing diapers



after coughing or blowing your nose



after smoking

It is Very Necessary to Wash Our Hands in the following Cases



before, during and after handling or consuming food



after touching raw food; especially meat, poultry and seafood



after using kitchen utensils and used containers



after using chemical substances and antiseptics



after cleaning the kitchen surfaces, sweeping and cleaning the floor



after collecting and throwing garbage

Kitchen Cleanliness:

Continuously cleaning up the kitchen during cooking is important. The following kitchen cleanliness tips should be practiced diligently:

Methods for Cleaning Kitchen Surfaces and Utensils:

- Use paper towels or clean cloth to wipe up kitchen surfaces or spills. Wash cloths often in the hot cycle of your washing machine.
- Wash cutting boards, dishes, utensils, and counter tops with hot, soapy water after preparing each food item and before you go on to the next item.
- As an extra precaution, you can use a solution of 1 tablespoon (14.7 ml) of unscented, liquid chlorine bleach in 1 gallon (3.7 litres) of water to sanitize washed surfaces.
- Dispose the trash as soon as you finish preparing food in tightly sealed plastic bags.

Methods for Cleaning Kitchen Cleaning Tools:

- Microwave a damp sponge for one minute or put it in the dishwasher with a drying cycle.
- Keep all cleaning solutions sterilized, dry and appropriately stored.













Protecting the Kitchen from Insects and Rodents

The existence of insects such as flies and cockroaches, and rodents such as rats and mice along with inadequate hygiene conditions are a common cause of illness in kitchens that are not properly established, prepared and cleaned.

Eradicating Insects and Rodents in Your Kitchen, You Should Practice the following Tips



Cover food and store it properly in tight containers.



Keep garbage covered and get rid of it regularly.



Use pesticides carefully and according to the instructions of use.



fix places that can give access to rodents and insects to your kitchen.

Such as:

- o Broken or damaged plumbing.
- o Drains for washing machines that are left open.
- o Vents with missing grills.
- o Open gaps around windows or wall-mounted air conditioners.
- o Cracks in walls, floors or floor hatches.
- o Broken, neglected or poorly maintained wooden cupboards.



Using Clean Safe Water and fresh food

Pure water is very important for washing hands as well as fruits and vegetables during preparation of food and drinks. Moreover, it is also necessary for washing kitchen utensils, containers, etc.

Water and ice may be contaminated with germs, microbes or chemical substances, which can be a reason for catching foodborne illnesses. Therefore, use pure water or treat it chemically so it is safe for use, as highlighted in the next steps below.



Effective Ways to Kill Germs and Sterilize Water



Boil water for 1-2 minutes.



Add filters on all water taps as well as the main tanks.



Add 3-5 drops
(0.15 ml - 0.25 ml)
of chlorine to
every 1 liter
(1,000 ml) of water.

Selecting Safe food

- Select fresh and newly manufactured foods.
- Avoid worn out foods that look moldy and discolored.
- Avoid buying or consuming food or canned products that appear oxidized from cracks, leakages or bulges.
- Do not buy or consume expired foods.

Washing Vegetables and fruits Well

Wash vegetables and fruits very well because they may have been contaminated with microbes or chemical substances before and during harvesting, especially those vegetables and fruits that can be consumed without needing to be cooked.



Tips on How to Wash fruits and Vegetables

- 1 Wash your hands thoroughly for 20 seconds with warm water and soap before and after preparing fresh produce.
- 2 If damage or bruising occurs before eating or handling, cut away the damaged or bruised areas before preparing or eating.
- **3** Rinse produce BEFORE you peel it, so dirt and bacteria aren't transferred from the knife onto the fruit or vegetable.
- 4 Gently rub produce while holding under clean running water. There's no need to use soap or a produce wash.
- 5 Use a clean vegetable brush to scrub firm produce, such as melons and cucumbers.
- 6 Dry produce with a clean cloth or paper towel to further reduce bacteria that may be present.
- 7 Remove the outermost leaves of the head of lettuce or cabbage.



Step (2) Separate





Keep all of the raw meat, poultry, and seafood separate from other edible and/or precooked food such as salads, while you are shopping, preparing and storing the food.

Cross-contamination is the physical movement or transfer of harmful bacteria from one person, object or place to another. Chopping boards can be an easy place for cross-contamination to occur. Placing ready-to-eat foods such as fresh produce on a surface that held raw meat, poultry, seafood or eggs can spread harmful bacteria.



The following is Advice to Avoid Cross Contamination Across Cutting Boards

◆ Use different cutting boards for different types of food (different colors: green for fresh produce, yellow for raw chicken, red for meat, blue for seafood).



fresh Produce



Raw Chicken



Meat



Seafood

- ◆ Replace your cutting boards once they become excessively worn or develop hard-to-clean grooves.
- ◆ Before reusing them, thoroughly clean and sanitize plates, utensils and cutting boards that have come into contact with raw meat, poultry, seafood or eggs.

Raw food; especially meat, poultry, seafood and their juices may contain germs or microbes that cause diseases. They can be transferred from one food to another either through direct contact or if the juices mix with each other. Hence, this step is highly important. Apart from using separate cutting boards, make sure to separate food appropriately during cooking and while storing.

Keep food Separate During Cooking



Use special utensils, containers, knives and cutting boards for raw food.



Make sure to wash and sanitize these tools used with raw food, before using them with fruits, vegetables, and cooked food.



Keep food Separate While Storing

- When storing food items in the fridge, place raw foods such as meat and chicken on the last shelf, beneath the cooked food shelf.
- 2 Store food in separate and tightly closed containers to prevent any contact between different kinds of food.
- **3** Clean fridge regularly and dispose off spoiled/expired food.



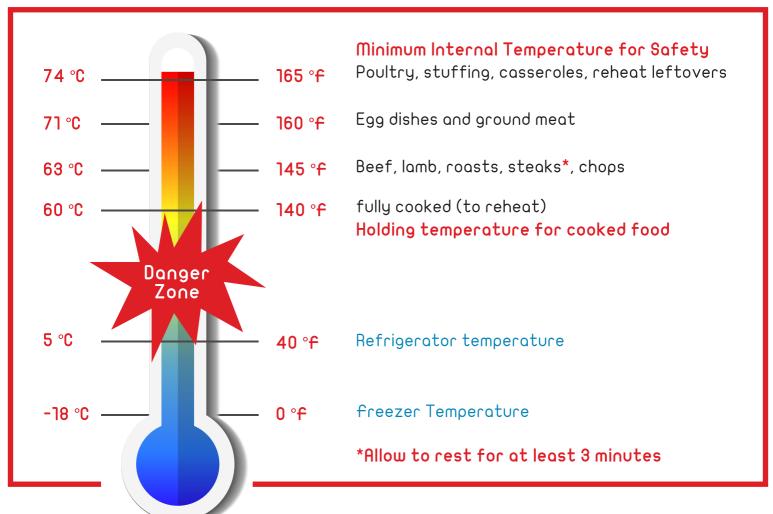
Step (3)

Cook



Cooking food properly and for a sufficient time period, especially meat, chicken, egg, and seafood, is crucial.

Studies prove that cooking food for 30 seconds until all of its internal parts reach 70 °C (158 °F), ensures that most of the microbes that cause diseases are killed. Leaving food out for too long at room temperature can cause bacteria to grow to dangerous levels causing illnesses. Bacteria grows most rapidly in the range of temperatures between 5 °C and 60 °C (40 °F - 140 °F) doubling in number in as little as 20 minutes. This range of temperatures at which most bacteria can grow is commonly known as the "Danger Zone", as shown in the figure below:



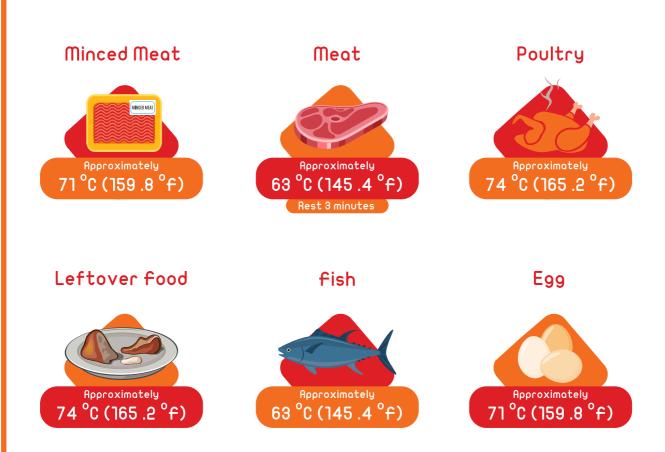
Danger Zone in Temperature

The ideal temperature for bacteria to grow is the average body temperature of 37 °C (98.6 °F). Therefore, the closer the temperature is to 37 °C (98.6 °F), the faster the bacteria will grow, doubling in as low as 20 minutes.

To avoid the danger zone, refer to the safe minimum internal temperature for some food items in the table below.

We should note that some kinds of food such as minced meat, grilled food (Kofta and Kebab), big meat pieces, and full chicken need special care. Meats need to be allowed to rest for 3 minutes after cooking.

The Safe Minimum Internal Temperature



Use a food Thermometer to make sure that all parts including the internal part of the food are at 70 °C (158 °F).

It is a common misconception to consider that food is cooked well when its color changes or when food starts releasing juices. These are -to some extent- correct ways. However, the best way to ensure food safety and make sure that all of its parts are at an appropriate temperature is by using a food Thermometer.

The Correct Way of Using a food Thermometer

Insert the Thermometer inside the thickest part of the food





It is preferable to use a metal Thermometer, rather than a glass one



Make sure of washing and sanitizing the Thermometer after each use in order to avoid contamination of food

The Dangers of Hydrogenated Oil

It is widely recognized in the food industry that food items that contain partially hydrogenated oils are a big source of trans fats. Trans fats are formed when hydrogen is added to liquid oil turning it into solid fat.

Trans fats cause illnesses such as cholesterol and coronary heart disease. They are also associated with a higher risk of developing type 2 diabetes.



The Best Way to Avoid Consuming Trans fats is by the following

Make sure to remove the fatty substance on raw meat.

2

Always check the percentage amount of trans fats on manufactured food items.

Using monounsaturated fat (canola and olive oil) and polyunsaturated fat (soybean, corn, sunflower, and vegetable oil) are a great substitute for hydrogenated oils.



Cooking Methods and food Safety



The following information provides important guidelines for different cooking methods to ensure safe cooking at appropriate temperatures for the right amount of time.

Safety Tips for frying foods

(1) Before frying



- Prepare the food, clean all surfaces and wash your hands before handling any food to avoid cross-contamination.
- Take out the food you plan to fry and pat dry in order to prevent oil splatter when food is submerged.
- fill the oil container to the recommended level and adjust your fryer to the temperature best for the food you are frying. If you are using a skillet, fill oil no more than 2 inches (5.08 cm) from the top of the skillet to allow space for the oil to rise when the food is added.
- Use a deep-frying thermometer to ensure the oil reaches and stays at the correct temperature.
- When the oil has reached the correct temperature, it is time to begin deep-frying. Before placing battered food in the oil, remove any excess batter to prevent debris in the oil and maintain an even coating on the food.



(2) During frying



- If using a deep fryer, do not overcrowd the frying basket, as it can cause undercooking, uneven cooking, and/or overflowing of the oil.
- Never leave the fryer/skillet unattended. frying is a very fast cooking process, food can blacken, burn, and become a potential fire hazard if cooked even a few minutes too long.
- Never use plastic when deep-frying. Some plastic types can easily melt in hot oil.
- Do not test the internal temperature of the food while it is submerged in hot oil; this will lead to an inaccurate temperature reading.
- Place the food on a plate covered with paper towel. Use a clean food thermometer to check the internal temperature.







(3) After frying

- When you have finished cooking all of your food, turn off your fryer and unplug it to allow the oil to cool. (If using a skillet, take it off the heat.) When you are ready to clean your fryer, make sure the fryer is completely cooled (wait approximately 2 hours).
- If you are planning to reuse the oil, strain it through a cheesecloth or sieve. Store the used oil in a sealed and light-proof container for up to 3 months.
- If the oil is clouded, starts to foam, or has a foul odor, taste or smell, discard it. The safest way to dispose off oil is by pouring it into a sealable metal container such as a coffee can or milk carton and throwing the oil-filled container in the trash.
- Do not pour oil down the sink. Oil can cool with running water in the drain and congeal, causing backups in your sink, septic system, or sewer system.



Safety Tips for Oven-Cooking food

• It is safe to use the following utensils in an oven:







Heatproof glass (Such as Purex)



Glass-ceramic (such as Corning Ware)



Oven cooking bags



Wax paper or parchment paper

- Arrange food items evenly in a covered dish and add some liquid if needed. Cover the dish with a lid or plastic wrap; loosen or vent the lid or wrap to let steam escape. The moist heat that is created will help destroy harmful bacteria and ensure uniform cooking.
- Large cuts of meat should be cooked on medium heat for a longer time. This allows heat to reach the center without overcooking outer areas.
- Stir or rotate food midway through the cooking time to eliminate cold spots where harmful bacteria can survive.
- Never partially cook food and store it for later use.
- Use a food thermometer to verify the food has reached a safe minimum internal temperature. [Refer to Safe Internal Temperatures section]



Safety Tips for Grilling Food



Use a moist cloth or paper towel to clean the grill surface before cooking.



Keep meat and poultry refrigerated until ready to use. Only take out what will immediately be placed on the grill.



Use a food thermometer to verify the food has reached a safe minimum internal temperature. [Refer to Safe Internal Temperatures section].



Use clean utensils and a clean plate to remove cooked meat from the grill.



Throw out marinades and sauces that have touched raw meat juices, as it can spread germs to cooked foods through cross-contamination.

Safety Tips for Slow-Cooking Food



Begin with a clean cooker and utensils.





The slow cooker may take several hours to reach a safe, bacteria-killing temperature. Therefore, keep perishable foods refrigerated until preparation time.



Always thaw frozen meat or poultry before putting it into a slow cooker.



Vegetables cook slower than meat and poultry in a slow cooker so if using them, put the vegetables in first.



Keep the lid in place, removing only to stir the food or check for doneness.



Use a food thermometer to verify the food has reached a safe minimum internal temperature. [Refer to Safe Internal Temperatures section]



If you are not at home and the power went out during the slow-cooking process throw away the food even if it looks done.

Step (4)

Chill



One of the common but incorrect practices is to leave cooked food at room temperature or inside the oven for several hours. This is dangerous because bacteria can grow and multiply if the temperature is between 5 °C - 60 °C (40 °F - 140 °F).

Don't leave cooked food at room temperature for more than 2 hours. If the room temperature is higher than 32 °C (89 .6 °F), don't leave it out for more than 1 hour.

You should either directly put food in the refrigerator or freezer with ice or cold water as the temperature is below 5 °C (40 °F), or keep it at a temperature higher than 60 °C (140 °F) until you serve it.

Storing Leftover food



Cook small amounts of food in order to avoid any leftovers.



Don't keep leftover food in the refrigerator for more than 3 days.



Heat up refrigerated leftover food until it reaches approximately 70 °C.- 75 °C (158 °F - 167 °F).



Heat soups and broths up till it boils, before serving it.



Do not reheat food more than once.



frozen foods

- Avoid thawing frozen food at room temperature. Instead, thaw it either in the refrigerator in a bowl of cold water, or in a microwave.
- If food is thawed in the refrigerator, it is safe to refreeze it without cooking.





Tips to Preserve the Quality of frozen foods

- Store all foods at -17 °C (0 °F) or lower to retain vitamin content, colour, flavour and texture.
- Prevent freezer Burn: freezer burns are white, dried-out patches found on uncovered frozen items, most commonly on the surface of meat.

Here's How to Avoid it



Wrap freezer items in heavy freezer paper, plastic wrap, freezer bags, or foil.



Date all freezer packages. Use the oldest food first.



Place new items
toward the back
of the freezer;
that way, older
items are easier to
access and you'll
use them first.

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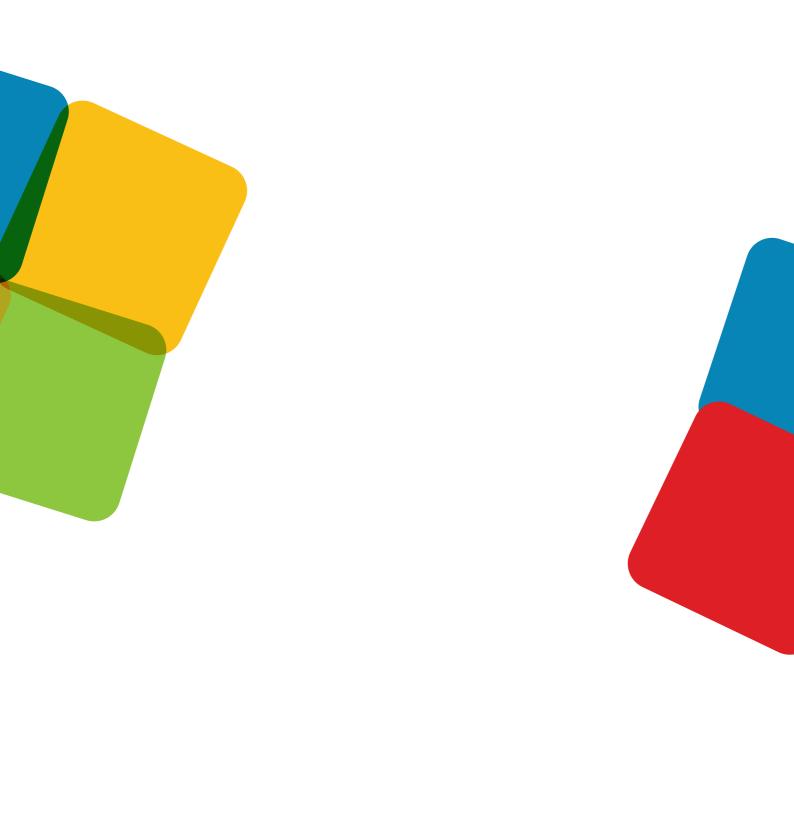
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