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# International Research Journal Of Clinical Studies And Pharma Trends

INTERNATIONAL  
RESEARCH JOURNAL  
OF CLINICAL  
STUDIES AND  
PHARMA TRENDS

## A Review on Food Safety during Covid- 19 Pandemic

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### ARTICLE INFO

#### Article history:

Received 04 March 2021

Revised 01 April 2021

Accepted 09 April 2021

Published 20 April 2021

**Keywords:** Covid-19, Food safety, Food poisoning.

### ABSTRACT

The food sector had to overcome different challenges during the pandemic, striving to produce and secure sufficient and safe food. Food security, food safety and food sustainability are perceived as emphatically influenced measurements of food systems during the Covid-19 pandemic. What is food safety? When bacteria, viruses and other germs, contaminate the food making those who consume the contaminated food very ill is called food poisoning. On that account, to know protecting consumers from food poisoning is very essential. Food borne illnesses can be severe and fatal, milder cases are not often detected through routine surveillance. The implementation of proper food-handling practices can prevent cases of food borne disease. No one in the world can assure absolutely that our food is safe. Each country characterizes and sets up its own laws and requirement rehearses for food handling guideline and these guidelines may fluctuate from one country to another, and locally from one district to another. .

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### Introduction

Food safety and food hygiene are important as they ensure that the food you handle and produce is safe for consumption [11]. Food borne diseases are mostly caused by bacteria, viruses, helminthes and fungi. Serious food borne diseases such as cholera, typhoid fever, etc., virtually eliminated in developed countries. Food borne diseases are evidently increasing in both developed and developing countries. The explanations behind this are not completely perceived. Most cases of food borne illness are preventable if food protection principles are followed throughout the food chain, from production to consumption. The epidemiology of food borne diseases is rapidly changing as newly recognized pathogens emerge and well-recognized pathogens increase in prevalence or become associated with new food vehicles [10, 11].

#### Food safety and hygiene practices at work place:

Safety of workers refers to the provision of a protected climate, safe equipment and safe procedures and strategies in the work environment to guarantee workers health and safety [1, 2]. Safety of workers may also be known as worker safety, workers wellbeing or occupational health and safety. A protected and clean working environment assists with making a productive workforce [5]. Your workplace sanitization, food safety and cleanliness strategy should include the following important principles:

#### Thorough Cleaning and Sanitizing

Make sure, the region wherein you are working is clean and

hygienic [3]. Homemade bleach solution can be used to sanitize the counter tops for the preparation of meats, vegetables and fruits that will be used in preparing your meals. Cooking utensils and equipment, such as chopping boards, knives, peelers, bowls, and mixers, must be thoroughly cleaned between preparing the food. Keep washing your hands after touching other surfaces [3, 5]. Ensure there are no ways that pests or insects could enter the workplace by thoroughly cleaning the area, using pest control sprays, and covering food appropriately.

#### Personal Hygiene

Self-cleanliness significantly improves the worth of an individual [1, 2]. On the off chance that representatives keep up with their cleanliness sufficient, they fall in the great books of the supervisor naturally. Additionally, a perfect working environment guarantees great health of the employees and they are less inclined to infectious illnesses [3, 4]. Ensure the people dealing with food have an exclusive requirement of individual cleanliness [5]. This includes:

- Tie the hair back so that no hairs fall into the food.
- Thoroughly wash hands with soap and hot water, before, and after handling food, to ensure no germs from your hands are transferred to the food [5].
- Wear clean clothes to work, to ensure no germs from your clothes transfer to the food [4].
- Wear gloves if you are handling food with bare hands [7].
- Eat using spoons and forks rather than using bare hands.

#### Storage of Foods

Distinguish which food varieties should be kept at room temperature, which should be refrigerated, and which should be

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frozen [6, 8]. Hot food varieties ought to be kept at 140 degrees or higher and cold food sources at 40 degrees or lower [3, 6]. Bowls with ice are also great strategy of keeping those cold items cold. These food safety and sanitization rules in the kitchen are straightforward steps to keep you and your family safe from the food borne illness [2, 7]. Domestic freezers which are used at our homes must be set at -18°C, which will stop synthetic and chemical reactions occurring within foods [6, 8]. This will stop bacteria and other microorganisms growing and producing toxins.

We do realize that having a solid eating routine, being physically active and dynamic, managing/reducing stress and getting enough sleep are critical to keeping our immune system strong [1, 5]. Do what you can, and at times attempt to have some good times en route! The COVID-19 health crisis has been creating a wide range of unique, special and individual impacts—from food access issues, income disruptions, emotional distress, and beyond [3, 8].

**Grocery Shopping:**

- Overall, aim to minimize your trips to the store and visit at off-peak hours to avoid crowds [10, 11].
- When you do go shopping, wear a face covering or mask and maintain a safe distance from other as much as possible, such as when you're waiting in the checkout line. 6 feet distance minimum must be maintained [9, 12].
- Another likely potential risk of contracting infections when shopping is from contacting a shopping basket or bin. As noted, corona virus can stay on hard surfaces like steel and plastic (e.g., vehicle entryway handles i.e. car door handles, shopping basket/bin handles, and lift buttons/catches) for as long as 3 days so these are the most noteworthy danger surfaces to contact.
- Some stores may run out of hand sanitizer, be prepared and bring along a pair of disposable gloves with you as a backup. Put them on before touching the shopping cart or basket, and remove and dispose safely once leaving the store.
- Offer to bag your own groceries, to minimize touching by other individuals [13, 14].
- Foods purchased at a store or delivered to your home can kept out-of-the way place for three days because of the limited ability of corona virus to survive on surfaces can reduce the risk of infections.

**Food delivery & Take-out meals:**

In spite of the fact that cafés and restaurants beginning to open, feasting in vicinity to others may expand hazard of transmission. To support the local businesses is to order takeout or delivery meals are a safer option. As indicated by the CDC, COVID-19 isn't probably going to be sent through the food itself. The danger would almost certain come from close contact with the delivery guy the food [15]. Now many restaurants offer food deliveries with minimal or no contact, such as prepaying with a credit card or over the phone, food being carried to a car for pickup, or food being left at the door. Once the meal is received, shift the meal from the package to a plate, dispose the packaging, and wash hands thoroughly with soap and water [14, 17].

**Meal Planning, Cooking and eating:**

- Hand washing is a critical step in reducing the spread of COVID-19 and should be done often. Particularly before and after preparing food and also before and after eating food. Wash your hands thoroughly with clean water and soap for a minimum of 20-30 seconds [6].
- Protein is naturally retained throughout processing, and many foods fortify B vitamins and iron that may be lost during processing.
- Fruits and vegetables that are quickly frozen after harvesting can retain the majority of vitamin C [6].

- Breads, cupcakes and muffins, whether packaged or homemade, also can freeze well for several months [5, 6].
- Vegetables with high water content like lettuces, tomatoes, and cucumbers do not freeze well, but many others like broccoli, asparagus, green beans, carrots, and Brussels sprouts freeze well.
- Some fruits last for months refrigerated in the produce drawer, such as apples [6]. Fruits like bananas, all berries, cantaloupe, and pineapple freeze well.
- Use spare time at home to experiment with new recipes.
- Being home all day means easy access to food in the kitchen, and perhaps a greater temptation to snack [9]. Emotional eating from boredom or anxiety (stress eating) may also lead to consuming extra calories. For snacks carrots and apples can be remembered.
- If you live with one or more persons, aim to eat at least one meal together daily. Increasing socialization is particularly significant during this time. ALSO, keep the dinner table screen-free [5, 6].

**Physical performance:**

- Plan a set of time for exercise or other fun physical activities.
- There are endless free virtual exercise resources. Many fitness centers and experienced fitness trainers are offering live-streamed workouts on Instagram, YouTube etc. that provide a real-time experience to improve social connections.
- Fresh air combined with moderate aerobic activity can help clear the mind, boost energy levels, reduce blood pressure, improve digestion, and lower stress. Walking, strolling or jogging on a bright spring day is not just enjoyable, yet may likewise boost your vitamin-D levels [12].

**Breathe, Rest and Sleep:**

- Among the many stressors in a day, be sure to take time for rest and regular, conscious breathing.
- Keep a sleep schedule. Attempt to awaken and head to sleep around a similar time. Our body clock, or circadian mood, manages sensations of tiredness and alertness every day. Having a reliable rest plan keeps a reasonable circadian beat with the goal that we can enter further, more serene sleep [15]. This in turn helps to regulate appetite and mood [16].

**CONCLUSION**

Food products are among the most-traded commodities in the world. Food borne diseases are evidently increasing in both agricultural and urban countries. The explanations behind this are not completely perceived. The demand for cheap food and the failure to provide the required care while preparing food, results in food poisoning in developed countries. Try avoiding food-borne illnesses by practicing few hygiene actions like washing hands frequently, sanitizing the hands and also the surfaces by using surfactants.

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