



PREFACE

The Food Safety and Standards Authority of India (FSSAI) is pleased to present the 'Eat Right During COVID-19' book. This book on food hygiene, safety and nutrition guidelines has been specifically created for consumers to prevent the spread of COVID-19, which has posed a threat to our health and well-being in recent times.

In thirteen chapters, this document highlights the best practices to be followed in the 'new normal of COVID-19' when handling food; from buying to preparing and consuming food. It also includes tips on personal and surrounding hygiene, nutrition tips, SOPs for food service establishments as well as community kitchens. Finally, it includes common myths along with their clarifications.

Eat Right During COVID-19' has been carefully reviewed and vetted by domain experts in the field of food safety and nutrition. FSSAI would welcome any feedback and suggestions on this publication. It is hoped that this book, through wide dissemination, becomes a useful guide on eating right during these difficult times.

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ACKNOWLEDGEMENTS

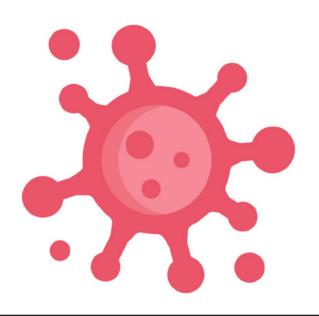
FSSAI would like to express deep gratitude to all the experts in food and nutrition who have reviewed, vetted and contributed to this book. This includes members of - Nework of Professionals in Food and Nutrition (NetProFaN) and its member associations namely-Indian Dietetic Association (IDA), Nutrition Society of India (NSI), Indian Medical Association (IMA), Association of Food Scientists and Technologists-India (AFSTI), Association of Analytical Chemists (AOAC), Indian Federation of Culinary Associations (IFCA) and Indian Public Health Association (IPHA). Memebrs of National Institute of Nutrition (NIN) and The World Bank have also made a valuable contribution to this book.

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Introduction



INTRODUCTION

Coronavirus Disease 2019 (COVID-19) caused by SARS-COV-2 virus is a recent threat that is spreading rapidly across the world. The clinical and epidemiological characteristics of the virus are still being documented. The disease can present itself with symptoms that may include dry cough and fever or in some cases as gastrointestinal (GI) infection. In some positive cases, there may be very mild symptoms or no symptoms at all. The respiratory disease in severe form can present as acute respiratory illness and pneumonia. The exact dynamics of its transmission is yet to be determined; however, as evident, it seems to spread:

- 1. **Directly** as human to human transmission, through droplets when the person carrying the virus either sneezes, coughs; through close personal contact (including touching and shaking hands); or through touching your nose, mouth or eyes with contaminated hands.
- 2. Indirectly through contaminated surfaces that contain the virus.

The World Health Organisation (WHO) has advised social distancing and maintaining high personal hygiene standards as means of containing transmission of this virus.

No reported case of Coronavirus Disease (COVID-19) pandemic has been linked to transmission by food. Coronaviruses cannot multiply in non-living things like other viruses – they need a living body as host to multiply and survive.

The main risk involved with food is human to human transmission during food handling from close contact with infected food handlers or individuals. There can also be transmission through surface of food and food packaging material containing droplets of corona-infected food handlers. These can be avoided with good hygienic practices.

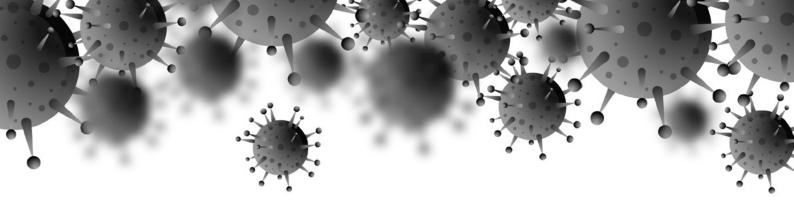
Food is the basic necessity of an individual and is the fuel for life. It provides energy and helps in developing immunity. Even during these difficult times of the COVID-19 pandemic, food, being an essential commodity, was supplied without interruption and will continue to be supplied in the future.

Consumers procure food through different modes i.e. e-commerce portal, retail shop, kirana shop, fruit/vegetable vendors, milk booths etc. Thus, there are two major players in this chain: Food Businesses and Consumers. FSSAI has advised food businesses to take all necessary precautionary measures during this pandemic. But consumers are also required to take precautions to prevent contact and spread of COVID-19.

For Food Business Operators (FBOs) FSSAI issued detailed guidelines on food safety and hygiene during the COVID 19 pandemic. The same can be accessed at: https://fssai.gov.in/upload/uploadfiles/files/Guidance_Note_COVID_15_04_2020.pdf

Also realising the need for training food handlers, FSSAI has commenced training for food handlers under its flagship Food Safety Training & Certification (FoSTaC) programme.

However, nothing can be achieved unless consumers take precautions to prevent the spread of COVID-19. This guidance document highlights some important practices for consumers to follow diligently to avoid the spread of COVID-19 through food. This document has been vetted by experts in the fields of food safety and nutrition. Adhering to these guidelines will go a long way in keeping ourselves and others safe and healthy in these difficult times of COVID-19.



Key Facts About COVID-19



2 KEY FACTS ABOUT COVID-19



What is COVID-19?

COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV.' The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of common cold.



What are the symptoms of COVID-19?

Symptoms can include fever, cough and shortness of breath. In more severe cases, infection can cause pneumonia or breathing difficulties. More rarely, the disease can be fatal. These symptoms are similar to the flu (influenza) or the common cold, which are a lot more common than COVID-19. This is why testing is required to confirm if someone has COVID-19.



How does COVID-19 spread?

The virus is transmitted through direct contact with respiratory droplets of an infected person (generated through coughing and sneezing). Individuals can also be infected from and touching surfaces contaminated with the virus and touching their face (e.g., eyes, nose, mouth). There is currently no evidence to support transmission of COVID-19 associated with food. The COVID-19 virus may survive on surfaces for several hours, but simple disinfectants can kill it.



Who is most at risk?

We are learning more about how COVID-19 affects people every day. Older people, and people with chronic medical conditions, such as diabetes, heart disease or lung disease and immunocompromised individuals, appear to be at a greater risk of developing severe symptoms. As this is a new virus, we are still learning about how it affects children and other vulnerable groups. We know it is possible for people of any age to be infected with the virus, but so far there are relatively few cases of COVID-19 reported among children. This is a new virus and we need to learn more about how it affects children. The virus can be fatal in rare cases, so far mainly among older people with pre-existing medical conditions.



What is the treatment for COVID-19?

There is no currently available vaccine for COVID-19. However, many of the symptoms can be treated and getting early care from a healthcare provider can make the disease less dangerous. There are several clinical trials that are being conducted to evaluate potential therapeutics for COVID-19.



How can the spread of COVID-19 be slowed down or prevented?

As with other respiratory infections like the flu or the common cold, public health measures are critical to slow the spread of illnesses. These include everyday preventive actions such as

- Washing hands often with soap and water for atleast 40-60 seconds
- Cleaning frequently touched surfaces and objects
- Covering mouth and nose with flexed elbow or tissue when coughing or sneezing and disposing off the used tissue immediately
- Wearing a Face mask
- Staying at home when sick
- Contacting the closest health care provider in case you develop fever with cough and breathing difficulty



3 Precautions to be Taken When Purchasing Food



3 PRECAUTIONS TO BE TAKEN WHEN PURCHASING FOOD



POINTS to keep in mind before you leave your house for shopping for food:

- 1 Go out for grocery shopping only when necessary.
- 2 Wear a clean mask/ re-usable face covers and gloves.
- 3 Carry a sanitizer (70% alcohol based) when going out for shopping.
- 4 Carry your own shopping bag/basket.
- 5 Prepare a shopping list in advance and buy as many items as possible at one store. Buy as per requirement. Avoid buying more than you need, otherwise it can create unnecessary demand and temporary shortages.
- 6 Shop during non-peak hours as far as possible.
- 7 Do not go shopping if you feel sick and are showing symptoms or if you think you have been exposed to the virus.
- 8 Carry a mobile or credit/debit card for cashless payments. It is recommended to use e-payment modes such as UPI, e-wallets.
- 9 Select less crowded shops for shopping.
- 10 Maintain a separate set of clothes and footwear for going out and change immediately after returning home. Keep separate footwear for home and outside.
- 11 Keep all the shopped items separately. The used mask/gloves should be disposed carefully (details in Annexure I).



Inside the food shop REMEMBER these POINTS:

- 1 Maintain social distancing by maintaining minimum 6 feet in public places as far as possible with other people while waiting in queues and throughout the shopping trip
 - When waiting for your turn to enter the shop
 - While picking food items from the shelves
 - At the billing counter
- 2 Only touch products/items you intend to purchase.
- 3 Avoid touching common touch points such as door handles/knobs, counters, etc. If you touch something, sanitize your hands immediately with an alcohol-based sanitizer.
- 4 Don't touch your mouth, eyes and nose (MEN) at any point of time. If required use a clean tissue paper and dispose it properly in nearest dustbin.
- 5 Disinfect the handle of the cart or basket before using it in the store. If this is not possible, sanitize hands after using basket or carts.
- 6 If you are wearing gloves, avoid touching your mask or face with these gloves. Use an alcohol based sanitiser after touching any surface even while gloves are worn.
- 7 If buying meat, try to buy chilled/frozen meat through online apps, else buy from a licensed retail shop. The shop should have refrigerated cabinets for display of meat.
- 8 Keep the shopping material away from your body when carrying from the market. Put the purchased food items in your shopping bag/basket.

9 Use online payments modes such as UPI, wallets, QR code for payment. Avoid using currency notes as they may be contaminated. Don't take currency notes from any shop keeper. If you give currency notes to the shop keeper then purchase with the whole amount and do not take currency back. Sanitize hands with an alcohol-based sanitizer or wash with soap and water after handling currency.



Once you reach home, follow these STEPS:

- 1 First, leave your shoes outside before entering the house.
- 2 Keep shopping bags in an isolated or segregated place.
- 3 Wash your hands with soap and clean drinking (potable) water as soon as you enter. If possible, keep sanitizer or soap and water at the entrance.
- 4 Sanitize mobile phone and keys immediately.
- 5 Take a bath and change clothes. Put the used clothes for washing in a separate bin.
- 6 Afterwards, remove the food from the shopping bags and keep it away. Do not store/leave food outside of the house, in cars or garages as it could lead to food safety issues like temperature abuse and pest exposure.
- 7 Sanitize/disinfect food packages by wiping them with an alcohol based solution or soap and clean water. If the package touched the counter or a surface, clean the surface with a sanitizing wipe or solution.
- 8 Clean sink and platform where all these food items are being washed. Do not let the drip fall on the floor, if so wipe immediately.
- 9 Wash hands with soap and clean water after handling the packages.

Fruits and Vegetables

- Keep fruits and vegetables bought from vendors for four hours within the packet itself in an isolated place.
- Wash fruits and vegetables thoroughly with lukewarm water or put a drop of 50 ppm chlorine for fruits and vegetables in warm water and dip the vegetables in it.
- Clean vegetables with potable/clean drinking water
- Do not use disinfectants, cleaning wipes or soap on fresh produce. Sanitisers are completely not recommended for vegetables and fruits, rather they can be harmful because of the presence of chemicals. Sanitisers are useful only for our hands, body and metal or steel surfaces. Spraying chemicals on vegetables and fruits, becomes all the more harmful as it is chemicals being sprayed on things which one will consume.
- Store fruits and vegetables, which require to be refrigerated, in the refrigerator. Keep the rest at room temperature in baskets or racks.

Packaged Milk

- Wash the packet thoroughly with water.
- Don't cut the pack immediately. Let the packet dry off otherwise external surface water will also pour into pan .

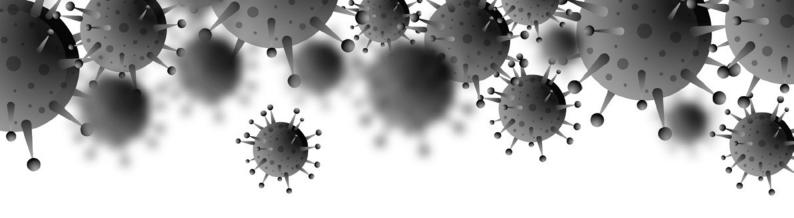
- Cut the pack, pour milk into a pan and heat to a boil.
- Wash hands after pouring milk into the pan.
- If you take milk from the milkman, check if the milkman is wearing a mask. If not, request him to wear one. Maintain safe distance while receiving milk. Boil the milk immediately for atleast one minute.

Meat and Eggs

- Always clean meat at the end after cleaning of fruits and vegetables etc.
- Use running tap water for proper cleaning.
- Clean drip from meat, pack and refrigerate appropriately.
- Avoid taking broken and damaged eggs.
- •You may wash the eggs. Follow these simple instructions. In a bowl, add drinking water that is warmer than the egg (but not hot). Dip the egg into the water and lightly wipe it clean. Rinse the egg under cool drinking water. Gently dry and refrigerate or use immediately. Do keep in mind is that eggs have a porous surface. Do not disinfect eggs with antibacterial substances, using any kind of cleaner (bleach, etc.) could pose a health risk, as these products can transverse the porous shell of the egg and cause contamination.
- Store eggs at refrigeration temperature.
- Buy eggs as per consumption and try to consume within a week time from purchase.
- Tray used for keeping egg should be periodically cleaned and disinfected.

Other Food Materials

- Other food items purchased for later use that cannot be washed such as onions, grains, canned food etc. shall be stored separately for at least 72 hours.
- Consume or cook them only after waiting for 72 hours.
- 10 Discard or recycle single-use bags or put away reusable bags, and then wash your hands again before touching your face or the food.
- 11 Cleaning and disinfection of reusable bags:
 - Plastic and nylon bags-
 - Clean inside and outside of the bag with soapy water and rinse
 - Spray or wipe down the bags inside and out with a diluted bleach solution (see Annexure II)
 - Allow bags to air dry completely before storing and using
 - Cloth bags -
 - Wash in warm water with normal laundry detergent
 - Dry the washed bag with exposure to sun as far as possible



4

Precautions to be Taken When Ordering Food From Delivery Platforms



4 PRECAUTIONS TO BE TAKEN WHEN ORDERING FOOD FROM DELIVERY PLATFORMS



POINTERS for ordering food for delivery

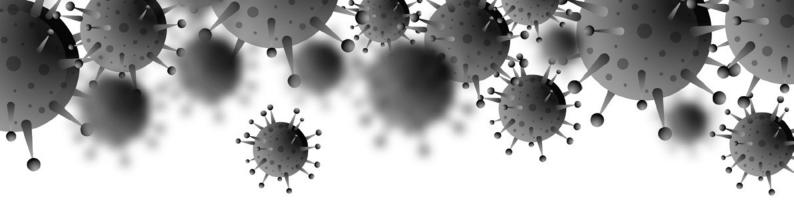
- 1 Use contactless delivery modes where food packets are left outside your door and customer is informed on call. This helps to maintain social distancing.
- 2 In case contactless delivery is not possible, ensure there is minimum 1 meter gap between you and the delivery person.
- 3 Opt for contactless modes of payments such as UPI, QR codes, net-banking, e-wallets, etc. In case, payment is made using card or cash, hands should be washed or sanitized after payment.



STEPS to take when handling delivered food items:

Restaurants and delivery partners ideally should be ensuring cleanliness of the food package. However, follow these steps to keep yourself safe:

- 1 Collect the food package and keep it in an isolated or segregated place.
- 2 Open the package, and discard external packing into the dustbin
- 3 Wash hands with soap and water or sanitize hands with an alcohol-based sanitizer.
- 4 Empty the food content using tongs, ladles, spoons, etc. into clean serving dish/utensil.
- 5 Discard the food packages/containers carrying or holding food
- 6 Wash hands with soap and clean water or sanitize hands with an alcohol-based sanitizer.



Precautions to be Taken When Handling Food



5 PRECAUTIONS TO BE TAKEN WHEN HANDLING FOOD

The best practice for consumers is to maintain high standards of personal hygiene, the standard protocol of social distancing and limiting social contact, and ensuring proper cleaning & disinfection.

Follow these steps when handling food:

- 1 Wash hands for at least 40-60 seconds with clean water and soap
 - Before handling/preparing food
 - · When handling different types of food
 - After finishing food preparation
 - · Before consuming food
 - Consuming a meal, snack, beverage or any other food item
- 2 Hands should be washed or sanitized for at least 40-60 seconds at frequent intervals of time, but especially -

Before:

- Wearing face masks/covers
- Wearing gloves

After:

- Coughing
- Sneezing or blowing nose
- Touching face or hair
- · Handling waste
- Cleaning surfaces, utensils, floors, etc.
- Using the bathroom
- Eating, drinking or smoking
- Handling money, bills, papers, etc.
- After going out in public
- Touching surfaces such as door knobs, walls, windows, doors, elevator buttons,
- · keyboards, steering wheel, shopping card, baskets, etc.
- Removing face mask/cover or gloves
- 3 Clean and disinfect food preparation surfaces (including the kitchen sink), equipment, and utensils with hot soapy water before and after preparation of food.



Precautions to be Taken When Preparing Food



6 PRECAUTIONS TO BE TAKEN WHEN PREPARING FOOD

- 1 High standards of personal hygiene should be maintained during food preparation (As mentioned in para 3).
- 2 Any person showcasing flu-like symptoms or any other infection should avoid handling food.
- 3 Use clean knives, chopping boards, plates, bowls, etc. for food preparation.
- 4 Avoid cross contamination during food preparation. Ensure that:
 - Separate chopping boards, knives, utensils and containers are used for cutting/chopping or cooking of vegetarian and non-vegetarian food/ raw and cooked food.
 - If that is not possible, chopping boards, knives, utensils and containers used for raw meat/fish/seafood or raw food products should be washed before using them for cutting/chopping of vegetables and fruits or cooked food.
 - Wash hands with soap and water for at least 40-60 seconds after shifting from handling non-vegetarian food and raw to cooked food.
- 5 Frozen food items should be thawed/defrosted in the refrigerator (below 40 C) or under cold running water while it is still in a packet or in the microwave before use.
- 6 Food items being marinated may be kept in the refrigerator.
- 7 All food items should be kept covered.
- 8 It is advisable to cook food thoroughly and it should be prepared for immediate consumption. In case food prepared is to be consumed later, then gravies, curries, rice preparations, etc should be refrigerated immediately after preparation. This food should be reheated thoroughly before consumption.
- 9 Avoid use of the same ladle, serving spoons etc. for vegetarian and non-vegetarian food products.
- 10 In case salad is being prepared, ensure that vegetables and fruits are thoroughly washed in water before use. You may use 50 ppm chlorine for washing vegetables and fruits to be consumed raw.
- 11 Avoid dipping your finger or using your hand for tasting food. Also, spoons/forks used for tasting food during preparation should not be used again.
- 12 Avoid reheating of oil and refrain from reusing reheated oil for cooking. Always use fresh oil.
- 13 During COVID-19 pandemic, it is advisable to avoid sharing of meals, spoons, plates etc.
- 14 Wash hands thoroughly with soap and water for at least 40-60 seconds before serving and eating food.
- 15 Salt and pepper shakers, ketchup bottles, etc. should be cleaned regularly.
- 16 Always check the best before/use by/expiry date of the packaged food being used for cooking. Check that raw fruits, vegetables, milk, etc. are fresh and have not gone bad.

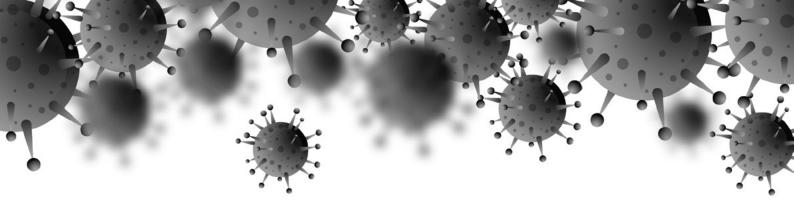


Precautions to be Taken When Handling/Disposing Left Over Food

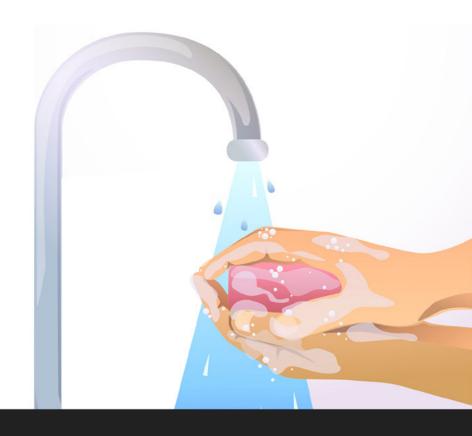


PRECAUTIONS TO TAKE WHEN HANDLING/DISPOSING LEFTOVER FOOD

- Ideally, it is advised not to consume leftover foods, especially in summers. However, if there is leftover food, it must be stored appropriately to avoid food wastage.
- In case food prepared is more than the required quantity for a meal, the excess food may be refrigerated immediately after food preparation or after serving the meal.
- Leftover food should be checked for staleness or spoilage. In case any sign of food spoilage is observed, food should be immediately discarded. Do not taste food for checking food spoilage; use your sense of smell and vision for the same.
- Leftover food which is in good condition should be reheated thoroughly before consumption
- Leftover food of one meal can be used as a raw ingredient in the next meal preparation. For example, boiled rice can be used for making kheer, phirni, pulao, fried rice, lemon rice, etc.
- Potato vegetables can be used as a stuffing for sandwiches, bread rolls, etc.
- It is ideal to use separate waste bins for wet waste (vegetable peels, spoiled food, etc.) and dry waste (plastic, glass, tin, etc.).
- The leftover food spoiled/not being consumed should be discarded in a covered bin. Hands should be washed after waste disposal.



Personal Hygiene Practices



PERSONAL HYGIENE PRACTICES



Hand washing

Wash your hands with soap and clean water for at least 40-60 seconds or use a 70%- alcohol-based sanitizer for at least 20 seconds.



Bathing

- Take a bath regularly.
- Take a bath as soon as you come from outside, and change into a fresh set of clothes.
- Be sure to wash your hands and face thoroughly.



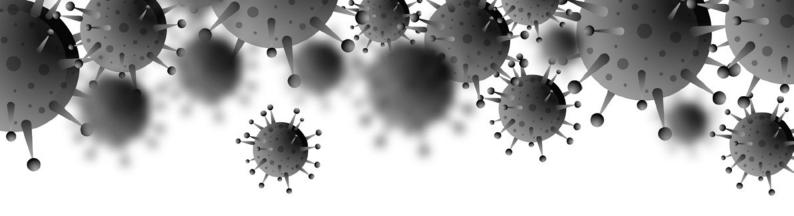
Footwear

- Keep dedicated footwear to use outside the house.
- Leave them outside when you enter the house.
- Wash them with soap and detergent regularly.



Clothes

- Change clothes as soon as you come from outside.
- Keep clothes that you wear outside in a separate bin.
- Wash them with detergent or soap.



9

Practices for Keeping the Kitchen and Home Disinfected



9

PRACTICES FOR KEEPING THE KITCHEN AND HOME DISINFECTED



Wash kitchen counters/slabs and stove thoroughly with water and detergent every day.



Clean and disinfect kitchen counters and stove after every meal.



Utensils and equipment shall be washed thoroughly with soap and detergent water after use.



10 Nutrition Tips

- Some Useful Dietary and Lifestyle Guidelines
- Role of Specific Nutrients and Foods To Maintain
 Optimal Immune Function and Good Health
- Traditional Spices, Condiments & Herbs as Immunity Boosters
- Special Care for the Elderly, Pregnant Women and Children
- Maintenance of Good Health Among Those With Diabetes and Other Chronic Illnesses



10 NUTRITION TIPS

In the wake of the COVID19 pandemic people are becoming increasingly aware of the importance of healthy food to keep infections at bay. As for diet, diversity and variety is the solution - "MY PLATE FOR THE DAY", depicts 8 different kinds of foods to be consumed in a day by an individual. If you were to place all the foods that are to be consumed in a day in a plate, half the plate should be occupied with essentially four groups of foods that are: vegetables, green leafy vegetables, fruits and roots, followed by cereals and millets, then pulses/flesh foods and nuts & oils (refer to my plate for the day/ Dietary Guidelines for Indians- ICMR-NIN).



Some Useful Dietary and Lifestyle Guidelines

- 1 Follow a healthy diet and the make right choices from available sources
- 2 Choose to consume local foods, whole grains, fresh and seasonal fruits and vegetables. Ensure that you eat a variety of foods.
- 3 Choose traditional recipes and methods of preparation.
- 4 Avoid over eating and undereating. Exercise portion control. Stop eating a little before when you are absolutely full.
- 5 Limit consumption of highly processed foods (biscuits, cheese, pies, cakes, breakfast cereals etc.), fried foods, sugar sweetened fruit juices & carbonated drinks, salty snacks, etc.as these are high in fat, salt and/or sugar, and poor in desirable nutrients (vitamins, minerals, phytonutrients) Thoroughly cooked meat/ poultry may be included in moderation if you are non-vegetarian.
- 6 Avoid fats like vanaspati, lard, shortening and margarine.
- 7 Get exposure to sunlight for at least 15 min per day, preferably from 11 am-1pm, which would ensure adequate Vitamin D status, while taking necessary precautions in time of Covid 19.
- 8 Keep your body active; keep a check on your weight
- 9 Moderate physical activity/yoga will reduce stress and build immunity.
- 10 Maintain ideal body weight (less than 18.5 Body Mass Index (BMI) is undernourished, and more than 23/25 is overweight/obese for an adult) being underweight or excess weight/obesity impairs immunity or leads to other diseases.
- 11 Keep your body hydrated with adequate water intake for good immune response to any infection.
- 12 Smoking & alcohol adversely affect immunity and increase the risk and severity of infections, hence it must be avoided.
- 13 Seek appropriate medical and nutrition advice from qualified professionals (online /telephonic consultations)
- 14 Get adequate sleep every night.
- 15 Stay connected with family and friends.

- 16 De-stress and be positive
- 17 Maintain an overall balance and good lifestyle by exercise, yoga, meditation, good nutrition, sleep and hydration.



Role of Specific Nutrients And Foods to Maintain Optimal Immune Function & Good Health:

The immune system is a complex system, not a single entity. To function well, it requires balance and harmony. Optimal nutrition helps to strengthen the immune system (both innate and adaptive immunity) and promote early recovery. No single food/supplement, spice or herb can prevent or treat illness. However, it is prudent to include some specific nutrients on a regular basis.

Vitamins A, B, C, D, E, minerals such as zinc, selenium, iron, copper, phyto nutrients, amino acids, omega 3 fatty acids are important nutrients for optimal immune function. For instance, Vitamin A maintains structure and function of the mucosal epithelial cells of the respiratory tract and enhances mucosal immunity (critical for prevention of respiratory infection), vitamin E, ß carotene (precursor of Vitamin A), Vitamin C, B, Zn, Se act as potent antioxidants. A healthy gut (gastro intestinal tract) helps to reinforce the immune system, increases immune responses and promotes specific immune signaling by including foods rich in prebiotics and probiotics regularly.

It is prudent to obtain these nutrients through a good balanced diet, since (1) though deficiency of one or more of these nutrients can increase the frequency and severity of infections, supplementation of nutrients among healthy (not deficient) population does not provide any additional benefit (2) secondly, some of these nutrients in excess can increase susceptibility to infections. Therefore, a balanced diet is the key!

HERE ARE SOME SOURCES OF KEY NUTRIENTS:

HYDRATION

Hydration helps to relieve congestion and flushing of toxins and maintain the mucus membrane of the nose and upper respiratory tract intact



Sources: Plain Water, Coconut Water, Nimbu Pani, Green Tea, Herbal Tea, Infused Water, Soups, Milk, Buttermilk, Unsweetened & Unsalted Drinks, Fruits and Vegetables

PROTEINS

Plays a role in the body's healing & recovery



Sources: Soy Products, Unsalted Nuts and Seeds, Beans and Pulses, Eggs and Poultry, Learn Meat, Fish & Sea Food, Milk And Milk Products

Various Recipes: • Curries – Veg & Non Veg • Sprouted Salads • Dals & Dal Soups • Snacks • Milkshake • Curds • Paneer, And Cheese

OMEGA 3 FATTY ACIDS

Enhances the function of Immune Cells



Sources: Chia Seeds, Walnuts, Pumpkin Seeds, Watermelon Seeds, Sunflower Seeds, Fish like Mackerel, Tuna, Salmon, Bombay, Rani Fish

Various Recipes: • Smoothies • Curry • Raw or lightly roasted seeds • Drinks • Chutney

VITAMINS

Vitamin A

Protects by keeping skin & tissues in the mouth/ stomach/intestines & respiratory system healthy.



Sources: Sweet Potatoes, Carrots, Mango, Papaya & Apricots, Eggs, Glv's: Spinach, Milk & Milk Products

Various Recipes: • Curries, Salads, Juices, Pickles • Chutney, Soups • Cut fruit, Juices, Shakes, Jams, Jellies • Milk, Shakes, Sweets

VITAMINS

Vitamin D

Antimicrobial Effects, Reduces Proinflammatory Cytokines and Promotes Healthy Gut Microbiota



Sources: Milk & Milk Products, Sunlight exposures between 11 am-1 pm (Exposure of 18% of Body), Fatty Fish, Eggs, Liver

VITAMINS

Vitamin E

Acts As An Antioxidants & Radical Scavenger and Helps In Modulating the Host Immune Responses In Elderly



Sources: Sunflower Seeds, Safflower Seeds, Garden Cress Seeds, Flax Seeds, Almonds, Pistachio

 $\begin{tabular}{ll} \textbf{Various Recipes:} & Roasted / Soaked Seeds, Salads, Drink & Smoothies, Dry Chutney Folate-Idli, Dosa \\ \end{tabular}$

VITAMINS

Vitamin B6

Intestinal Immune Regulation, Cytotoxic Acitvity, Reduces Inflammation, Amino Acid Synthesis & Metabolism



Sources: Soyabean, Lentil, Masoor Dal, Whole moong, Val, Banana, Drumstick Leaves, Fenugreek Leaves, Garlic, Ginger Fresh, Curry Leaves, Green Chilli, Methi Seeds, Jeera Seeds, Whole Wheat Flour, Brown Rice, Parboiled or Ukada Rice, Barley, Jowar, Bajra, maize

Various recipes : Dal, Whole pulses, Curries, Bhaji • Banana Bread, Banana Milkshake, • Curry leaves Chutney, Idli Dosa, Sambhar, Chikki, Mixed Nuts Milkshakes

VITAMINS

Vitamin B9

Cytoxic Activity, Antibody Production & Metabolism, Antibody Response To Antigens



Sources: Soyabean, Matki, Rajma, Lentil, Masoor dal, Chawli, Dal, Black chana, Mango, Papaya, Spinach, Fenugreek Leaves, Amarnath Leaves, Beet Root, Fresh Peas, Capsicum, Drumstick, Walnut, Pistachio, Groundnut, Til Seeds, Flax Seeds, Sunflower Seeds

Various Recipes: Dal, Whole Pulses, Curries, Bhaji • Vegetable Chilla, Curry Leaves • Chutney, Idli Dosa, Sambhar, Chikki,

VITAMINS

Vitamin B12

Gut microbiota, T-Cell Production, Immunomodulator, Intestinal Immune Regulation



Sources: Fish, Meat, Poultry, Eggs, Milk, and Milk Products.

Various Recipes: • Boiled Eggs • Omelette • Poached Eggs • Curries • Milkshakes and Smoothies

VITAMINS

Vitamin C

Simulates Antibody Formation, Supports Cellular Functions



Sources: Green Leafy Vegetables, Citrus Fruits (Amla, Guava, Oranges, Grape Fruit), Papaya, Strawberries & Raw Mango, Capsicum, Lemon

Various recipes: • Curries, Chutney, Soups • Cut fruit, Juices, Shakes, Jams, Pickles, Mouth Freshener • Salad, Pickles • RaworLightly Roasted Seeds

PREBIOTICS & PROBIOTICS

Helps to Reinforce The Immune System, Increases Immune Responses and Promotes Specific Immune Signaling



Prebiotics: Special Form of Dietary Fibers That stimulates The Growth of Gut Microflora

Sources: Garlic, Onion, Banana, Barley, Oats, Apples, Flax Seeds, Wheat Bran

Various Recipes: • Porridge, Khichdi • Roasted Flax Seeds • Carefully Washed & Wiped Fruits

PREBIOTICS & PROBIOTICS

Helps to Reinforce The Immune System, Increases Immune Responses and Promotes Specific Immune Signaling



Probiotics: Specific Strains of Live Bacteria Found in Foods **Sources:** Fermented Milk, Yoghurt, Fermented Food Products **Various recipes Using Probiotic Containing Curd:**

• Curd Rice • Kadhi, Curd Poha • Fermented Foods

MINERALS: ZINC & SELENIUM

Helps Reduce Oxidative Stress Altering Host Response To Viral Infections

Whole Grains, Dals and Pulses, Soybeans, Black Til, Garden Cress Seeds, Watermelon Seeds, Pumpkin Seeds, Chicken & Eggs Chia Seeds, Walnuts, Sunflower Seeds, Fish like Mackerel, Tuna, Salmon, Bombay, Rani Fish



Sources: Whole Grains, Dals and Pulses, Soybeans, Black Til, Garden Cress Seeds, Watermelon Seeds, Pumpkin Seeds, Chicken & Eggs Chia Seeds, Walnuts, Sunflower Seeds, Fish like Mackerel, Tuna, Salmon, Bombay, Rani Fish

Various Recipes: • Fish and Chicken: Curry, Grilled, Pulav • Dal, Chilla, Chutney • Rotis / Parathas / Dosa / Whole Grain Khichdi • Egg: Scrambled / Curry/ Boiled/ Omlette • Wheat Flour: Roti , Parathas, Chilla • Soya Pulav • Curry / Biryani / Pulav • Dals/ Dhokla/ Dal Dhokli • Mukhwas

MINERALS: MAGNESIUM

Plays A Role in Innate And Acquired Immunity By Boosting Immunoglobulins

Plays a Role in Innate and Acquired immunity By Boosting Immunoglobulins



Sources: Ragi, Jowar, Pulses & Legumes, Green Leafy Vegetables, Almonds, Cashews, Black Til, Sunflower Seeds, Garden Cress or Halim

Various Recipes: • Curries, Bhakri, Chilla, Porridge • Drinks, Smoothies & Soups • Vegetables • Idli, Rotla & Thaleepith • Rawor Roasted Nuts

HERBS, CONDIMENTS & SPICES

Immune Boosters From The Kitchen Possess Antiviral / Antimicrobial Activity Which Help To Fight Infections













Sources: Ginger, Tulsi, Neem, Lemongrass, Turmeric, Garlic, Moringa, Mint, Kalonjee, Star Anise, Jeera, Coriander Seeds, Cinnamon, Black Pepper, Dry Ginger, Munakka, Ajwain, Cloves, Fenugreek Seeds

Various Recipes: • Tea • Decoctions • Mouth Freshener • Additives • Chutney

Reference: www.idaindia.com/covid-tool-kit



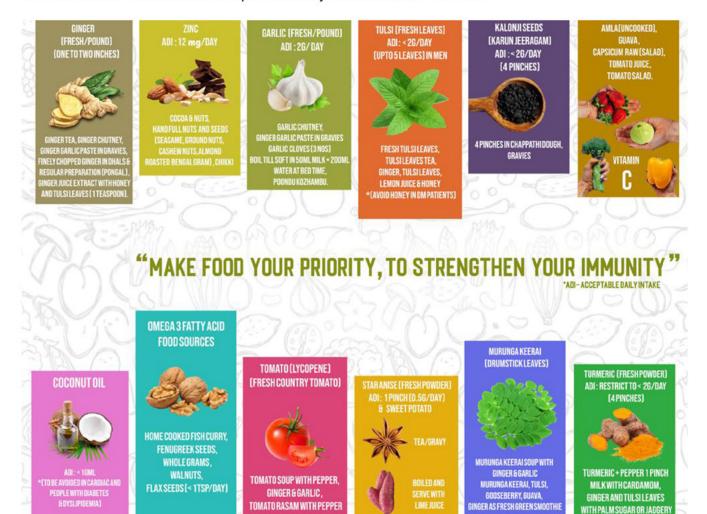
Traditional Spices, Condiments & Herbs as Immunity Boosters

Some tradictional spices and condiments possess antiviral / antimicrobial activity which helps to fight infections. Spices are an essential part of human diet, not only for flavor and taste but also for the medicinal properties that they contain. They are powerful antioxidants having a very high ORAC (Oxygen Radical Absorbance Capacity) value. In spite of several health benefits they should not be consumed in excess of acceptable daily intake.

Demerits of spices when consumed in excess:

- 1 Some spices may increase acid secretion and may cause damage to the inner layer of the stomach.
- 2 For people with existing gastritis, gastric ulcer, duodenal ulcer, peptic ulcer, stomach, spices may cause undesirable effects: cumin and coriander increase gastric secretion.
- 3 Consuming high doses of turmeric for longer periods has shown to cause decrease in body weight gain and changes in liver weight, both of which are not healthy.
- 4 Processing of garlic may lead to loss of health beneficial active compounds and also reduces the functioning capacity of enzymes present in it.
- 5 Therefore, it is advisable to consume raw garlic. [note: in some people with gastritis and GERD (gastroesophageal reflux disease), raw garlic may worsen the condition. It is also known to trigger migraine headache in a few].
- 6 Those already consuming a therapeutic diet for existing health problems -kidney, liver ailments or a treatment for special health conditions, should continue to consume the diet prescribed by treating physician /dietician

Therefore, as a part of balanced diet, consumption of appropriate dosage of spices is recommended within the acceptable daily intake not in excess.



Ref: Sushreemita Mishra and J.K Sahu, 2016, Spices as Functional Ingredient for Human Health, pgs – 50–53. International Conference on Innovative Research in Agriculture, Food Science, Forestry, Horticulture, Aquaculture, Animal Sciences, Biodiversity, Ecological Sciences and Climate Change (AFHABEC-2016) ISBN-978-93-85822-33-9



Special Care for the Elderly, Pregnant Women and Children

Special care is required for people above 65 years of age, people with comorbidities, pregnant women and children below the age of 10 years and are advised to stay at home, except for essential and health purposes.

Evidence suggests that elderly people are vulnerable, owing to reduced immunity, presence of comorbid conditions like heart, lung or kidney diseases, diabetes etc. Dependence on others due to hearing and eyesight problems, digestive changes, eating problems and physical inactivity are also evident. Healthy diet and lifestyle is as important for the elderly as for other age groups for improving immunity and overall wellbeing. We suggest a few tips that the elderly and their caretakers/family members should adhere to, for ensuring that elderly people are healthy, happy and protected from COVID-19. (Details attached at Annexure III)



Maintenance of Good Health Among Those with Diabetes and Other Chronic Illnesses.

People with Diabetes, patients with chronic kidney disease and hypertension are more vulnerable and should strictly follow social distancing and hand hygiene.

Most infections can be prevented by practicing good personal hygiene such as washing hands before preparing or eating food; Washing hands after cleaning vegetables or meat; stroking pet/animals; covering mouth with a tissue or cloth while coughing or sneezing. People with diabetes or other chronic illnesses should continue their regular medication and prescribed healthy dietary patterns along with adequate physical activity and keep themselves stress free. They should regularly monitor their blood glucose and keep in touch with treating physician for necessary support. They should consult their physician /dietician to include any unusual spice/ herb or supplement not consumed regularly especially when they are suffering from other disessesses.



11

Standard Operating Procedures (SOPs) for Re-Opening Food Establishments



1 STANDARD OPERATING PROCEDURE (SOPs) FOR RE-OPENING FOOD ESTABLISHMENTS

Staff working in food premises should be provided with written instructions and training on how to prevent the spread of COVID-19. Normal routine fitness to work procedures employed by food businesses as part of their FSMS should ensure that infected workers are excluded from food premises. Staff who are unwell or have symptoms of COVID-19 should not be at work and should be informed about how to contact medical professionals.



Best Practices

Customer Areas

- 1 Post signage promoting physical distancing upon entry.
- 2 Display signs in multiple locations that indicate the maximum number of customers and staff a restaurant can accommodate at any one time.
- 3 Size of parties cannot exceed that of current public health authority restrictions.
- 4 Mark direction of travel, to designate entrances and exits, pick up areas and washrooms.
- 5 Unless otherwise required by local authorities, redesign floor plans to demonstrate plans can demonstrate required social distancing.
- 6 Demarcate floor with markers for any areas where a line up may occur (restrooms, pick up areas, etc.) and/or provide directional signage to indicate flow through the restaurant as well as outside.
- 7 Where furniture cannot be removed to adjust for physical distancing, mark certain tables and chairs unavailable for use.
- 8 Temporary table dividers may be installed to make social distancing easier for restaurants with communal seating or larger tables.
- 9 Where practical, separate booth seating with physical barriers.
- 10 Bar seating should have physical barrier between guest and bar or kitchen and one seat every six feet. Alternatively, bar seating must be closed until physical distancing requirements are eased.
- 11 Washroom capacity may need to be adjusted to allow physical distancing.

Staff Area

- 1 Train staff on physical distancing and how to best serve food with the least amount of contact.
- 2 Create separation from action stations or open kitchens. Must separate guest from the kitchen or plating team with high, clear dividers if the distance between guest and staff is less than six feet.
- 3 Where possible, space out workstations so employees avoid standing directly opposite one another or next to each other.

- 4 Use, when possible, directional arrows on the floor in kitchen settings to control flow of traffic and reduce interaction and crossover between cooking and clearing areas.
- 5 Remind third-party delivery drivers and suppliers of internal distancing requirements. Provide separate entrance where possible.



· Practices for Different Restaurant Formats

In a full service dining environment:

- 1 Consider a reservations-only business model or call-ahead seating to better place and space customers.
- 2 Provide clear guidance to customers that they show up only at their designated time.
- 3 Remove waiting area seating and create a process to ensure customers stay separate while waiting to be seated could include floor markings, outdoor distancing, waiting in cars, etc.
- 4 Clearly designate takeout/pick up locations when separate from dine-in operations.

In a dining environment with self-serve areas

- 1 During the initial phases of reopening, and only where allowed, consideration may be given to staff member assistance in buffets, salad bars and other self-serve areas. Also, where salad bars and buffets are permitted, they should consider putting extended sneeze guards in place. Change, wash and sanitize utensils frequently and place appropriate barriers in open areas.
- 2 Modify or reconsider customer self-serve stations to limit contact with items and other guests by utilizing strategies such as floor markings and individually-wrapped stir sticks, straws, utensils.
- 3 If providing a "pick and go" service, stock coolers to no more than minimum levels and consider staff support for selecting items.

In a quick service restaurant environment:

- 1 Demarcate floor with markers for any areas where a line up may occur (order stations, pick up areas).
- 2 Provide clear signage and guidance to guests regarding ordering and pick-up areas, including mobile orders.
- 3 Reducing Contact
- Weather permitting, prop open entrances and exits to limit need for staff and customers to open/ close doors
- 5 Reduce the number of items on tables discontinue on-table condiments, condiment caddies, table cards, marketing materials and candles.
- 6 Bring customer items only once they are seated: glasses, cutlery, rolls, condiments (as needed), etc.
- 7 Don't touch water glasses or coffee cups when refilling.
- 8 Use technology where possible to reduce person-to-person interaction, eg. mobile ordering, menu tablets, text on arrival for seating, contactless payment options.

- 9 Build physical separation between customers and staff in counter service and payment settings.
- 10 Tables should be cleared one at a time to reduce potential for cross-contamination.



Cleaning and Sanitation

Continued Use of Approved Cleaning Products

Follow cleaning procedures and protocols with special attention to high-touch surfaces and objects. As per guidance under Ministry of Health / FSSAI, use only approved hard-surface disinfectants attached at Annexure II

Cleaning Procedures

- 1 Thoroughly clean the entire restaurant upon reopening.
- 2 Avoid food contact on surfaces when using disinfectants.
- 3 Update cleaning schedules and logs to reflect increased cleaning for high touch areas including door handles, front of house counters, restrooms as well as in the back of house.
- 4 Clean and sanitize shared equipment such as credit card machines, point of sale stations, safety vests, headsets, etc. after every use.
- 5 When cleaning tables between every seating, any cutlery, salt and pepper shakers, sauce dispensers, or other items must be removed and cleaned as well.
- 6 Tables should be left empty until the new guest arrives and only those items needed should be provided to customers.
- 7 Clean and sanitize reusable menus. Paper menus should be recycled after each customer use.
- 8 Make hand sanitizer available for staff and guests.
- 9 Have a deep cleaning response plan in place, in the event of an employee(s) testing positive for COVID-19.

Health and Personal Hygiene

Customers

- 1 Post signage at the entrance that states that no one with a fever or symptoms of COVID-19 is to be permitted in the restaurant.
- 2 Consider policies where customers can be refused entry if displaying signs of COVID-19.

Staff

- 1 Appoint a Health and Safety Point Person for every shift to ensure protocols are being adhered to and education is provided.
- 2 Have the supervisor do roll call and sign-in for staff, provide separate pens, or have staff text the supervisor when they start.
- 3 Clean any sign-in devices between users.
- 4 Stagger start times and/or minimize contact during sign-in.
- 5 Implement a pre-work screening "health check" for employees at the beginning of each

- 6 Do not allow staff on-site if they are sick or might be sick; they should return home or stay home.
- 7 Establish a clear policy for what is expected of workers if they get sick, have symptoms, or if an exposure is reported at the restaurant or store.
- 8 Provide separate lockers or sealed bins/bags for employees to store their personal items. Do not allow staff to leave any items overnight.
- 9 Limit the number of employees allowed simultaneously in break rooms to allow for physical distancing.



12 Guidance for Community Kitchens



12 Guidance for Community Kitchens



Good Hygiene Practices For Staff:

- 1 Proper hand hygiene- washing with soap and water for atleast 40-60 seconds.
- 2 It is required for food service workers to frequently wash hands, and, if using gloves, these must be changed before and after preparing food;
- 3 Frequently clean and sanitise counters, serving utensils and condiment containers;
- 4 Make available hand sanitizer for consumers on their way in and out of the food premises;
- 5 Good respiratory hygiene (cover mouth and nose when coughing or sneezing; dispose of tissues and wash hands):
- 6 Frequent cleaning/disinfection of work surfaces and touch points such as door handles;
- 7 Avoiding close contact with anyone showing symptoms of respiratory illness such as coughing and sneezing.



Best Practices When Handling Food

- 1 Keep kitchen premises clean and sanitized.
- 2 Keep lighting & ventilation on & insect free
- 3 Wash utensils with hot water before cooking.
- 4 Prefer air drying of utensils, avoid wiping with cloth.
- 5 Use separate dusters for utensils and surfaces.
- 6 Keep separate dustbins with lids for dry & wet waste.



Best Practices When Receiving Food

Buy

- 1 Non Vegetarian Items from Clean & Authorized Shops in Separate Bag
- 2 Check Date of Manufacture & Expiry Date of Packed Foods
- 3 Clean & Sanitize the Receiving Table /Kitchen Slab
- 4 Discard Outer Carton / Wipe Clean Ready to Eat/Serve/Cook Food Items

Wash

- 1 Plastic Food Packets with Soap & Water
- 2 Leafy Vegetables: immerse in Water & then in Running Water
- 3 Other Vegetables by washing well in Running Water
- 4 Raw Non Vegetarian Food with clean water



· Best Practices When Cooking & Holding Food

Cooking

- 1 Ensure thorough Cooking of Non Vegetarian Food Items
- 2 Keep Stirring Microwave Food to Ensure Even Cooking

Holding

- 1 Hot Food -Above 65° C & Cold Food- Below 5° C.
- 2 Quickly Cool & Refrigerate/freeze left over food.



Personal Hygiene For Food Safety

- 1 Wear clean and protective clothes or uniform along with gloves and mask if required.
- 2 Keep hair tied, cover your head with a cap.
- 3 Cut your nails regularly.
- 4 Do not wear jewellery while cooking.
- 5 Do not handle food when unwell.
- 6 Wash handsbefore and after handling food, using toilet, coughing or sneezing.
- 7 Use water proof bandage to cover cuts or burn wounds.









PREVENT THE SPREAD OF CORONAVIRUS

How to Wash Hands with Soap & Water?

Duration of the entire procedure: atleast 40-60 seconds



Water & soap



Palm to palm



Between fingers



Focus on thumbs

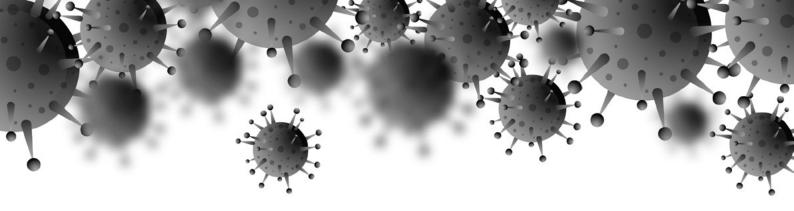


Back of hands



Focus on wrists

#HandHygieneDay



13Myth Busters

MYTH BUSTERS
ON COVID-19

13 MYTH BUSTERS

• In communities where COVID-19 is prevalent, should mothers breastfeed?

Yes. In all socio-economic settings, breastfeeding improves survival and provides lifelong health and development advantages to newborns and infants.



Can women with confirmed or suspected COVID-19 breastfeed?

Yes. Women with confirmed or suspected COVID-19 can breastfeed if they wish to do so. They should:

- Wash hands frequently with soap and water or use alcohol-based hand rub and especially before touching the baby;
- Wear a medical mask during any contact with the baby, including while feeding;



- •Sneeze or cough into a tissue. Then dispose of it immediately and wash hands again;
- Routinely clean and disinfect surfaces that mothers have touched.

It is important to replace medical masks as soon as they become damp and dispose of them immediately. Masks should not be reused or touched in the front.

How can food businesses remain safe from virus contamination?

The main priority is to keep the virus out of the food environment. Several key measures are required including upgrading of cleaning and sanitation measures, disinfecting surfaces and high-touch points, educating staff on the transmission of COVID-19 and how to protect themselves and others, reinforcing protocols such as physical distancing, hand washing, and sanitizing hands when handing out documents and other material.



Should grocery store workers wear gloves?

Gloves may be used by food workers but must be changed frequently and hands must be washed between glove changes and when gloves are removed. Gloves must be changed after carrying out non-food related activities such as opening/closing doors by hand, and emptying bins. **Used gloves must be disposed appropriately.**



What is the protocol when an employee working in a food business becomes ill with COVID-19?

Staff who are feeling unwell should not report to work and should seek medical advice. However, in the event that a food worker becomes unwell in the workplace with typical symptoms of COVID-19, they should be removed to an area away from other people. All surfaces that the infected employee has come into contact with must be cleaned. Alcohol based sanitizers/surface disinfectants should be used for cleaning purposes.



In general, alcohol-based disinfectants (ethanol, propan-2-ol, propan-1-ol) have been shown to significantly reduce infectivity of enveloped viruses like COVID-19 virus, in concentrations of 70. Common disinfectants with active ingredients based on quaternary ammonium compounds (QUATS) and chlorine would also have virucidal properties. All staff should wash their hands thoroughly for 20 seconds with soap and water after any contact with someone who is unwell with symptoms consistent with coronavirus infection.

If an employee is confirmed as a case of COVID-19 it will be necessary to notify all close contacts of the infected employee so they too can take measures to minimise further risk of spread.

When can an employee return to work following illness? Are temperature checks appropriate?

A return to work policy for staff who have been infected and recovered from COVID-19 should be in place. It is recommended that a confirmed patient can be released from isolation 14 days after symptoms resolve. Taking the temperature of food workers is not recommended. Fever is only one of the symptoms of COVID-19 and absence of fever alone is not a reliable indicator of wellness. As part of a food business 'fitness to work' guidelines, staff should report to management if they are sick with typical COVID-19 symptoms, particularly fever.



Can I get COVID-19 from food?

There is currently no evidence that people can catch COVID-19 from food or food packaging. COVID-19 is a respiratory illness and the transmission route is through person-to-person contact and through direct contact with respiratory droplets generated when an infected person coughs or sneezes.



Can the virus live on the surface of foods (including fruits and vegetables, frozen foods, pre-packaged foods)?

Coronaviruses cannot multiply in food – they need a live animal or human host to multiply and survive.



How to wash fruits and vegetables? Just with water, or something else?

Washing fruit and vegetables with potable water is sufficient.



To what temperature should food be cooked to kill the virus?

This virus is not more resistant to heat than the usual viruses and bacteria found in food. As recommended for good hygiene practice, foods should be thoroughly cooked to at least 75°C.



What is the best household disinfectant for surfaces?

Regular household cleaning and disinfection products will effectively eliminate the virus from household surfaces. For cleaning and disinfecting households with suspected or confirmed COVID19 illnesses - surface virucidal disinfectants, such as 0.05% sodium hypochlorite (NaClO) and products based on ethanol (at least 70% should be used).

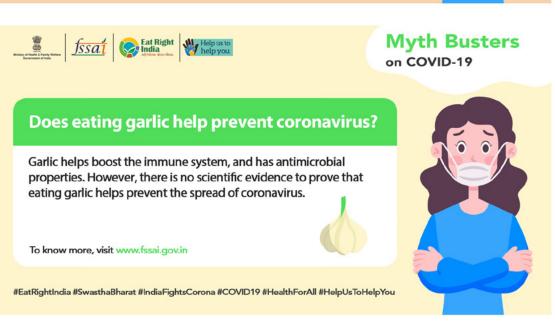


MYTH BUSTERS ON COVID-19

#EatRightIndia #SwasthaBharat #IndiaFightsCorona #COVID19 #HealthForAll #HelpUsToHelpYou







MYTH BUSTERS ON COVID-19







For more information: https://fssai.gov.in/cms/myth-buster.php

ANNEXURES

Annexure I

Mask management

For any type of mask, appropriate use and disposal are essential to ensure that they are effective and to avoid any increase in transmission.

The following information on the correct use of masks is derived from practices in health care settings

- 1 Perform hand hygiene
- 2 Place the mask carefully, ensuring it covers the mouth and nose, and tie it securely to minimize any gaps between the face and the mask.
- 3 Do not let the mask hanging from the neck.
- 4 Avoid touching the mask while wearing it.
- 5 Change the mask after six hours or as soon as they become wet.
- 6 Remove the mask using the appropriate technique: do not touch the front of the mask but
 - untie it from behind.
- 7 After removal or whenever a used mask is inadvertently touched, clean hands using an alcohol-based hand rub or soap and water if hands are visibly dirty.
- 8 Disposal of used masks: Used mask should be considered as potentially infected medical waste. Discard the mask in a closed bin immediately after use.
- 9 Do not re-use single-use masks.
- 10 Discard single-use masks after each use and dispose of them immediately upon removal.

WHO reference number: WHO/2019-nCoV/IPC_Masks/2020.3



COVID-19: Guidelines on disinfection of common public places including offices

Scope: This document aims to provide interim guidance about the environmental cleaning /decontamination of common public places including offices in areas reporting COVID-19. Coronavirus Disease 2019 (COVID -19) is an acute respiratory disease caused by a novel Coronavirus (SARS-CoV-2), transmitted in most instances through respiratory droplets, direct contact with cases and also through contaminated surfaces/objects. Though the virus survives on environmental surfaces for varied period of time, it gets easily inactivated by chemical disinfectants.

In view of the above, the following guidelines are to be followed, especially in areas reporting COVID-19. For ease of implementation the guideline divided these areas into (i) indoor areas, (ii) outdoor areas and (iii) public toilets.

1. Indoor areas including office spaces

Office spaces, including conference rooms should be cleaned every evening after office hours or early in the morning before the rooms are occupied. If contact surface is visibly dirty, it should be cleaned with soap and water prior to disinfection. Prior to cleaning, the worker should wear disposable rubber boots, gloves (heavy duty), and a triple layer mask.

- 1 Start cleaning from cleaner areas and proceed towards dirtier areas.
- 2 All indoor areas such as entrance lobbies, corridors and staircases, escalators, elevators, security guard booths, office rooms, meeting rooms, cafeteria should be mopped with a disinfectant with 1% sodium hypochlorite or phenolic disinfectants. The guidelines for preparing fresh 1% sodium hypochlorite solution is as follows:

Product	Available chlorine	1percent
Sodium hypochlorite – liquid bleach	3.5%	1 part bleach to 2.5 parts water
Sodium hypochlorite – liquid	5%	1 part bleach to 4 parts water
NaDCC (sodium dichloro-	60%	17 grams to 1 litre water
isocyanurate) powder		
NaDCC (1.5 g/ tablet) – tablets	60%	11 tablets to 1 litre water
Chloramine – powder	25%	80 g to 1 litre water
Bleaching powder	70%	7g g to 1 litre water
Any other	As per manufacturer's Instructions	

3 High contact surfaces such elevator buttons, handrails / handles and call buttons, escalator handrails, public counters, intercom systems, equipment like telephone, printers/scanners, and other office machines should be cleaned twice daily by mopping with a linen/absorbable cloth soaked in 1% sodium hypochlorite. Frequently touched areas like table tops, chair handles, pens, diary files, keyboards, mouse, mouse pad,

- tea/coffee dispensing machines etc. should specially be cleaned.
- 2 For metallic surfaces like door handles, security locks, keys etc. 70% alcohol can be used to wipe down surfaces where the use of bleach is not suitable.
- 3 Hand sanitizing stations should be installed in office premises (especially at the entry) and near high contact surfaces.
- 4 In a meeting/conference/office room, if someone is coughing, without following respiratory etiquettes or mask, the areas around his/her seat should be vacated and cleaned with 1% sodium hypochlorite.
- 5 Carefully clean the equipment used in cleaning at the end of the cleaning process.
- 6 Remove PPE, discard in a disposable PPE in yellow disposable bag and wash hands with soap and water.

In addition, all employees should consider cleaning the work area in front of them with a disinfecting wipe prior to use and sit one seat further away from others, if possible

2. Outdoor areas

Outdoor areas have less risk then indoor areas due to air currents and exposure to sunlight. These include bus stops, railway platforms, parks, roads, etc. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces as already detailed above.

3. Public toilets

Sanitary workers must use separate set of cleaning equipment for toilets (mops, nylon scrubber) and separate set for sink and commode). They should always wear disposable protective gloves while cleaning a toilet.

Areas	Agents / Toilet cleaner	Procedure
Toilet pot/ commode	Sodium hypochlorite 1%/ detergent Soap powder / long handle angular brush	 Inside of toilet pot/commode: Scrub with the recommended agents and the long handle angular brush. Outside: clean with recommended agents; use a scrubber.
Lid/ commode	Nylon scrubber and soap powder/detergent 1% Sodium Hypochlorite	 Wet and scrub with soap powder and the nylon scrubber inside and outside. Wipe with 1% Sodium Hypochlorite
Toilet floor	Soap powder /detergent and scrubbing brush/ nylon broom 1% Sodium Hypochlorite	 Scrub floor with soap powder and the scrubbing brush Wash with water Use sodium hypochlorite1% dilution
Sink	Soap powder / detergent and nylon scrubber 1% Sodium Hypochlorite	Scrub with the nylon scrubber.Wipe with 1% sodium hypochlorite
Showers area / Taps and fittings	Warm water Detergent powder Nylon Scrubber 1% Sodium Hypochlorite/ 70% alcohol	 Thoroughly scrub the floors/tiles with warm water and detergent Wipe over taps and fittings with a damp cloth and detergent. Care should be taken to clean the underside of taps and fittings. Wipe with 1% sodium hypochlorite/ 70% alcohol
Soap dispensers	Detergent and water	Should be cleaned daily with detergent and water and dried.

- 70% Alcohol can be used to wipe down surfaces where the use of bleach is not suitable,
- e.g. metal. (Chloroxylenol (4.5-5.5%)/ Benzalkonium Chloride or any other disinfectants found to be effective against coronavirus may be used as per manufacturer's instructions)

- 1 Always use freshly prepared 1% sodium hypochlorite.
- 2 Do not use disinfectants spray on potentially highly contaminated areas (such as toilet bowl or surrounding surfaces) as it may create splashes which can further spread the virus.
- 3 To prevent cross contamination, discard cleaning material made of cloth (mop and wiping cloth) in appropriate bags after cleaning and disinfecting. Wear new pair of gloves and fasten the bag.
- 4 Disinfect all cleaning equipment after use and before using in other area.
- 5 Disinfect buckets by soaking in bleach solution or rinse in hot water

4. Personal Protective Equipment (PPE):

Outdoor areas have less risk then indoor areas due to air currents and exposure to sunlight. These include bus stops, railway platforms, parks, roads, etc. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces as already detailed above.

- 1 Wear disposable rubber boots, gloves (heavy duty), and a triple layer mask
- 2 Gloves should be removed and discarded damaged, and a new pair worn.
- 3 All disposable PPE should be removed and discarded after cleaning activities are completed.
- 4 Hands should be washed with soap and water immediately after each piece of PPE is removed, following completion of cleaning.



Ten Messages for Family members/Caretakers of Elderly

- 1 If you are sick, stay away from elders at home. Wear a mask and maintain personal hygiene and physical distancing measures.
- 2 Clean and disinfect frequently touched objects and surfaces like bedstand, bedrails, tables, doorknobs, light switches, handles, desks, faucets, sinks, mobile phones etc.
- 3 Avoid sharing personal items. Do not mix your clothes with those of elders.
- 4 Make sure elderly wear freshly washed clothes every time they change. Their clothes must be washed thoroughly with a detergent powder and warm water.
- 5 Know what medications elders are taking.
- 6 Monitor their appetite, food intake and health condition. Stress induces poor gastric motility and heart burns leading to problems in digestion and poor dietary intake. Seek tele-consultation immediately from medical/para-medical practitioners if elders feel sick.
- 7 Do not rush to buy and store processed foods. Stock up on non-perishable foods to consume, in your home to minimize trips to the markets.
- 8 Make sure that elders are not completely bed-bound, motivate them to be mobile and active, at home. Make use of their expertise for cooking ideas, recipes etc.
- 9 Spend quality time with elders and recall all the pleasant memories to cheer them up. Engage the whole family to do physical activity, playing games etc together. Avoid visitors from outside.
- 10 Learn about elders, their hobbies. Give simple and relevant instructions on how to use their mobiles or other social media platforms and help them to contact their friends and loved ones.

