# **Newsletter of Pakistan Nutrition and Dietetic Society**

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# International News at Glance Probiotic as treatment option for Covid-19

Globally, more than 6 million confirmed cases of COVID-19 have made crucial moment to look for alternative measures to try against this pandemic in the absence of vaccine. Presently, Probiotic has potential to represent a complementary approach for the prevention and restoration of SARS-CoV-2-induced mucosal damage or inflammation through the modulation of gut microbiota. Probiotics exert their beneficial effects through several different mechanisms, and substantial differences appear to exist between different probiotic bacterial species and strains. Organisms therefore need to be selected in a rational manner to treat different diseases. Currently, questions remain concerning which patients should receive probiotics, what is the best way to deliver probiotics, how to ensure optimal delivery, and whether there is variation in efficacy among different populations. As the world waits in semi-lockdown mode, continued scientific progress for COVID-19 prevention or treatment is highly important, and probiotics represent one option. Thus, there is dire need to identify most effective probiotic strains including well documented probiotics and novel COVID-19-specific probiotics, that might result in reduced susceptibility to COVID-19 or less severe disease.

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# WHO PREVENTIVE MEASURES FOR HANDLING OF FOOD DURING PANDEMIC COVID-19

**Background:** The world is going up against an exceptional threat from the COVID-19 pandemic achieved by the SARS-CoV-2 infection (suggested as the COVID-19 infection). The World Health Organization (WHO) sending the direction to various countries from saving the virus SARS-CoV-2, which is transmitted by person to person through physical so WHO has concerned to diminished this illness from the globe. These preventive measures adopted by various associations, schools, and foundations of preparing, and constraints on movement and parties to knock out the virus from the world. The people on specific work for example working from home, teleworking, and on-line or web discussions and social affairs can continue their regular practices. Food industry staff have authority to keep on working in their standard working environments. In this current pandemic, all laborers must be in regular temperature checkup and use hand sanitizer and Dettol after 15 minutes to keep the food safe and sound. This is also required to maintain trust and consumer confidence in the safety and availability of food.

## Awareness of COVID-19 symptoms:

COVID-19 shows high fever temperature – 37.5 degrees Celsius or above, any kind of cough, Shortness of breath, difficulties in breathing difficulties and fatigue.

#### Potential transmission of COVID-19 via food:

When people touch food packages and direct contact with outer covering of food products, the virus transmit to them through mouth, nose and hands as virus can survive on packages for 72 hours. Coronaviruses can't multiply in food; they need a creature or human host to increase infected subjects.

Preventing the spread of COVID19 in the work environment. Good staff hygienic practices include: (a) Appropriate hand cleanliness – washing hands with cleanser and water for 20 seconds (follow WHO exhortation); (b). Frequent utilization of hand sanitizers; (c). A proper respiratory cleanliness (during hacking or sniffling spread mouth and nose); (d). Discard used tissues and wash hands; (e). Avoiding close contact with anybody indicating side effects of respiratory ailment, for example, hacking and sniffling.

## Physical distancing in the work environment

WHO rules, make one-meter (3 feet) distance between individuals to maintain physical distance. Give face covers, hair nets, expendable gloves, clean overalls, and slip decrease work shoes for staff, space out workstations, which may require decrease in the speed of creation lines, limit the number of staff in a food preparation area at any one time and also reduced the interaction between the working groups individuals.

## **COVID-19** illness in the workplace

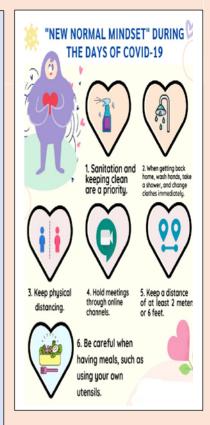
WHO recommends that subjects must be quarantined for 14 days from the last point of exposure to the confirmed case. If they become unwell at any time, they should be tested for COVID-19.

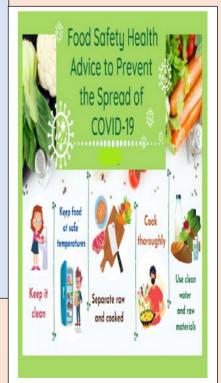
#### Maintaining physical distancing in retail food premises

WHO gives list of practical measures for retailers include the following:(I). more than two people don't be in group at any place. (II). Placing signs at entry points to request customers must to follow the SOPS that is given by WHO. (III). Checking the physical distancing between people both inside and outside stores; (IV). At entry point of store, a person must be standing with spray disinfectants to spray on the customer's hands and feet. (V). Using floor markings inside the retail store and also inside the bank and other places which is less than of 1125 square feet.



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#### References:

WHO COVID-19 and Food Safety: Guidance for Food Businesses: interim guidance.2020.

# CLINICAL CORNER

# Corona Virus Disease 2019 (COVID-19) and Medical Nutrition Therapy

#### **Corona-virus Disease**

The coronavirus belongs to a family of viruses that are associated with breathing difficulty, fever, pneumonia, fever and lung infection symptoms. In Wuhan, China, a type of corona-virus was detected on 29 December, 2019 that affects the lower respiratory tract, number of patients especially with Pneumonia; it was named 2019 novel coronavirus by the World Health Organization (WHO). Condition was named as Corona Virus Disease 2019 (COVID-19). The most common symptoms of COVID-19 are fever, Dry cough and tiredness. These symptoms may vary person to person depending upon the health and disease history of the patients. Some patients experience sore throat, aches, nasal congestion, pains, runny nose and diarrhea. There are some age groups who are at great risk of developing this infection specially the older people and those with underlying health issues including diabetes, heart problems and high blood pressure are more prone to develop serious illness.

# How does COVID-19 spread?

COVID-19 infected patients can transmit virus to other healthy people through coughing or exhaling as it produces the small droplets from mouth or nose. These droplets attach to the surfaces and object around the person and stays there depending upon the nature of object. When other people touch these surfaces and objects, then their hands are infected and coronavirus get enter to the body after touching their mouth, nose or eye. An appropriate distance of 1 meter (3 feet) is suggested by WHO from a sick person as if they breathe in droplets coughed or exhaled by COVID-19 patients then they can also be infected.

#### **Diagnosis**

COVID-19 is diagnosed by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab.

## **Preventive measures**

- •Wash your hands regularly with soap for 20 seconds or sanitize with alcohol based sanitizer frequently specially after coming from markets and other rushy places
- •Avoid touching mouth, eyes, nose because contaminated hands can transfer the virus to your body
- •A minimum distance of 1 meter should be maintained between you and a person who is sneezing or coughing
- •Cover your face with tissue or your elbow while sneezing.
- •Door knobs, doors, switches and the surfaces you touch frequently must be cleaned regularly with a disinfectant
- •Try to stay home as much as possible but if necessary, cover you face with mask while going out
- •Properly cook the food to kill the microbes. Avoid eating semi cooked, half-boiled egg and raw meat/egg

## Medical nutritional therapy

Some traditional home remedies can help in providing comfort and alleviate signs and symptoms of COVID-19. There is no evidence that current medicine can cure or prevent it. However, several clinical trials are ongoing for medicines and traditional therapies. If your immunity is strong then you can definitely prevent and fight the infection. Nutrition plays important role in combating not only in metabolic disorders but can also be helpful in viral diseases by boosting our immune system. Good nutrition and anti-viral therapy are an ideal treatment. A good balanced diet with addition of vitamins and trace elements, moderate physical activity, consumption of polyphenols, and cessation of smoking are essential for enhancing the immune system and combating the novel disease COVID-19.

**Protein** is essential for growth, repair and maintenance of body and fight bacterial and viral infections. Immune system powerhouses like immune cells and anti-bodies rely on protein. Protein deficiency can lead to weak immune system and frequent infections. Optimum protein intake can help fighting in infections including COVID-19. Good protein sources include meat, poultry, pulses, beans, eggs, milk and milk products.

**Zinc** has immunologic properties and is essential for proliferation of immune cells, regulation of intercellular killing, phagocytosis, cytokines production, basic cellular functions like DNA replication and cell division. Zinc deficiency can alter all these functions leading to impaired immunity and increased chances of infections. Therefore, zin rich foods such as nuts, legumes, seeds, red meat, cheese, eggs, oyster and dark chocolate must be consumed.

**Vitamin C** contributes in strengthening immune system by supporting cellular function of adaptive and innate immune system. It promotes free radical scavenging activity, phagocytosis and ultimately microorganisms killing. The natural sources of vitamin C includes guavas, pineapple, citrus fruits, strawberry, mango, bell pepper, broccoli, papaya, parsley, cabbage and garlic.

**Vitamin** E is powerful antioxidant that has an ability to modulate immune system. Vitamin E deficiency is associated with recurrent infections and diseases. In contrast, vitamin E supplementation has positive effects on host immune system, therefore it must be encouraged. Vitamin E rich sources include olive oil, almonds and sunflower seeds. **Vitamin A** plays a vital role in maintenance of cell mediated and innate immunity. The sources of vitamin include fish, eggs, walnuts, almonds, tomato, carrot, onion, broccoli, cabbage and green leafy vegetables.

**Omega 3 fatty acids** promote some specific immune functions in specific cells like phagocytosis by neutrophils and macrophages or T-reg differentiation. Omega-3 fatty acids rich foods include fish, fish oil, flaxseeds, and nuts like walnuts.

**Selenium** plays a vital role in antioxidant function and redox regulation. The natural sources of selenium includes cereals, fish, chicken, eggs, sunflower seed and mushrooms.

**Herbs and spices** also have immune system modulating properties such as garlic, milk thistle, ginseng, green tea, black cumin and fenugreek seeds. Drinks like lemon and

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- •Farag, H.A., Baqi, H.R., Hussein, Y.T., Shareef, O.H., Qadir, S.A., El Afifi, A. and El Bilbeisi, A.H., 2020. The Role of Nutrients in Supporting The Immune System Against Viral Infection; Newly Emerged Coronavirus (COVID-19): A Narrative Review. Kurdistan Journal Applied Research, pp.84-96.
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- •Calder, P.C., 2020. Nutrition, immunity and Covid-19. BMJ Nutrition, Prevention & Health, pp.bmjnph-2020.

# Kids Corner

# COVID-19 and Safe Return to Schools: Safe Operating Procedures



#### For Children:

- Wash your hands regularly with detergent and count upto twenty
- Keep the distance of 6 feet from other children
- Avoid shaking hands or embrace each other
- All school going children should wear mask
- Don't' touch eyes, nose or mouth with your hands
- Don't give your items to others



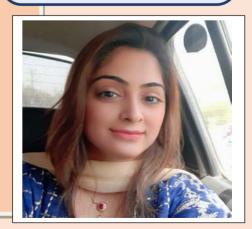
#### For Parents:

- If your child is showing symptoms of coughing or flu don't send him to school and consult doctor first
- Wash hands of your child before going school and after school
- Guide your children about
  - o Keeping social distance of 6 feet from others
  - Avoid shaking hands or embrace to each other
  - Give your children mask compulsory
- Give your children clean mask and if using cloth mask wash it at least once a time
- Teach your children to not make fun of others on wearing mask or not hate them
- Wear mask yourself when you are picking or dropping your children
- Parents should also keep social distance when receiving your children from school
- Regularly monitor health of child and keep him/her at home if they are ill
- Encourage the concerns or questions from your children

#### For Teachers and School Staff:

- Make sure that children wash their hands for 20 seconds regularly with detergents
- Check that students are wearing mask
- Make sure that children and other school members are keeping distance of 6 feet and not embracing each other
- Teach or explain them that how to cover your nose with tissue when sneezing
- Ensure that children and not sharing their items
- Ensure it children not hate others on wearing mask
- Avoid crowd
- Regularly sanitize desks, door handles, playing items and washrooms etc.
- Inform children about how to protect yourself
- Provide children with hygiene supplies
- Promote best practices for hygiene and hand washing
- Properly clean school buildings
- Disinfect water and sanitation faculties
- Improve ventilation or air flow to class rooms

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WHO, UNICEF and IFRC 2020. World Health Organization, United Nations International Children's Emergency Fund, International Federation of Red Cross and Red Crescent SocietiesCovid-19-Guidance-to-protect-children-and-support-safe-school-operations.https://www.who.int/newsroom/detail/. Accessed on March 10, 2020.

# PNDS activities at Glance

Every year in March, PNDS organize various activities country wide to celebrate Nutrition Month and to provide nutrition related information and guidance for the public. Similarly this year, all PNDS chapters will be actively organizing a range of different activities during march month. Faisalabad Chapter organized activities under the theme of "EAT RIGHT BITE BY BITE".

- 1. March Nutrition walk
- 2. 5<sup>th</sup> Continuing Nutrition Education (CNE) Program
- 3. Cooking Competition

# Awareness Walk



# 5<sup>th</sup> Continuing Nutrition Education (CNE) Program

# **Scientific Session**

1st Speaker

Ms. Ayesha Nasir RD, Consultant Dietitian (Critical Care Nutrition) Fauji Foundation Hospital Rawalpindi, Maroof International Hospital, Islamabad **Topic** 

"Myths and Realities Fluid Intake"

# **Scientific Session**

2<sup>nd</sup> Speaker

Eng. M.S. Anjum, Senior Manager Marketing and Sales Aseer Cooperation, King Saudia Arabia

# Topic "Poultry: Contribution to Current Human Health and Future Prospect"







# LAHORE CHAPTER

PNDS activity

Lahore Chapter 26th CNE Date: 14-02-2020 (Friday)

Topic: Optimizing Early Neonatal Nutrition: A contrast in everything evidence and clinical practice.

Venue: University of Home Economics, Lahore

Resource Person: Dr Zahra Khan PhD

Dr Zahra Khan has completed her PhD in neonatal nutrition from Graz, Austria. Her research work focused on nutritional support in neonates. She presented a part of her PhD research that she carried out in Austria and upon completion of her PhD she came back to Pakistan and carried the same research in the Children's Hospital Lahore. She presented a comparison of both research findings. This session was followed by house discussion.





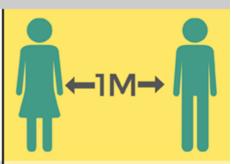
# How can I prevent COVID-19?



Wash your hands regularly or use an alcohol-based hand sanitizer.



Avoid touching your face, especially your eyes, nose and mouth.



Stay at least 1 metre away from people especially if they're unwell.



Cough or sneeze into a tissue. then throw away the tissue and wash your hands.



If you don't have a tissue use the inside of your elbow to cover your mouth.



Stay at home and call your health worker if you're unwell.

# HOW TO WEAR A NON-MEDICAL FABRIC MASK SAFELY



Adjust the mask to your face without leaving gaps on the sides



Cover your mouth, nose, and chin



Avoid touching the



Clean your hands before touching the mask



Clean your hands before removing the mask



Remove the mask by the straps behind the

Inspect the mask for

damage or if dirty



Remove the mask by the straps out of the bag

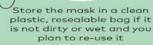


Wash the mask in soap or detergent, preferably with hot water, at least once a day



Clean your hands after removing the mask

Pull the mask away from your face



A fabric mask can protect others around you. To protect yourself and prevent the spread of COVID-19, remember to keep at least 1 metre distance from others, clean your hands frequently and thoroughly, and avoid touching your face and mask.





All PNDS members are invited to submit their articles for upcoming newsletter. Kindly submit articles via email on suggested section prescribed below.

**Section:** International and National Findings

Clinical Practice

Kids Corner Book Review

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Deadline: 25th October 2020