

Vaccination: Guidance on reducing the risk of communicable disease transmission in food processing facilities

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Definitions of key terms:

Food processing facility: In this guidance, food processing facilities include all food premises where food is packaged, distributed, transported, and/or processed. Food processing activities include washing, rinsing, cooking, smoking, salting, canning, freezing, pasteurizing, reprocessing, and packing, as well as shipping of food at distribution centres, slaughter facilities, and food manufacturing sites (for example, bakeries).¹

Worker: In this guidance, a food worker includes anyone who physically visits or is present at any time inside the food processing facility. This includes owners, operators, managers, supervisors, food handlers, cleaners, maintenance contractors, delivery workers, enforcement officials and anyone else who may be present where food is processed, packaged or handled.

Employers and owners/operators of food processing facilities must protect themselves and their workers from acquiring communicable diseases such as COVID-19 on the job. This document provides guidance on limiting the spread of illnesses at the workplace. Facilities should create and maintain a culture of workplace safety that embraces personal responsibility for wellness at the workplace supported by management and workers alike. Facilities can foster a culture of safety by including expectations for staff health and wellness in a communicable disease prevention plan. The COVID-19 pandemic has reinforced the importance of infection control and prevention measures to mitigate and prevent communicable diseases, keep workers healthy and food processing facilities operating. Food processing facilities in B.C. already have communicable disease prevention plans, policies and practices in place with COVID-19 safety plans that should contain written procedures to support activities that demonstrate compliance with procedures, visitor log records, worker health checks, and training records. Employers and owners/operators are required to provide information when requested by WorkSafeBC and other enforcement officials. WorkSafe BC has identified five elements of a successful communicable disease prevention plan: ventilation; hand hygiene; vaccine promotion; cleaning and sanitation; as well as worker illness policies. Please see this guidance for further details.²

This fact sheet reviews vaccinations.

Why are we still concerned about COVID-19 and other communicable diseases in food processing workplaces?

While the COVID-19 vaccination rates have been high in B.C. and have reduced the risk of severe illness for many people, especially those who are fully vaccinated and have received boosters, there are still transmissions of COVID-19 and other respiratory illnesses such as influenza reported in communities. Illnesses linked to COVID-19 variants of concern spread easily between people and breakthrough infections in vaccinated people can still occur. The COVID-19 pandemic has not been declared over.

Food processing facilities are essential to provide food to our communities. However, food processing facilities can also pose a high risk of communicable disease transmission. These workplaces are often crowded with people and equipment, workers may be in close contact for long periods because of production line work, facilities are noisy, requiring workers to shout to be heard, environments are kept cold and moist to protect food, full use of personal protective equipment and barriers can be challenging, outbreaks and clusters have occurred. Workers may live or work in congregate settings, and shift work can lead to crowding in small, shared spaces, such as break rooms. Conditions in food processing facilities may allow rapid transmission of communicable diseases between workers when multiple layers of protection are not present. Worldwide, the Food and Agriculture Organization (FAO) found that food processing facilities have become super spreader sites for COVID-19, leading to many outbreaks, worker deaths, and facility closures.³

How are communicable diseases spread?

Communicable diseases are infectious and spread between people through contact with bodily excretions such as respiratory particles and feces. COVID-19 is a communicable respiratory disease caused by the SARS-CoV-2 coronavirus.

Table 1. Description of illnesses that may be acquired in food facility work environments

| | Respiratory illnesses | Gastroenteritis | Direct contact and blood infections |
|-------------------------------|---|--|---|
| Sources | COVID-19 Influenza Cold viruses | Hepatitis A Norovirus <i>Salmonella</i> <i>Staphylococcus</i> | <i>Clostridium tetani</i> <i>Streptococcus</i> |
| Routes of Transmission | Droplet or aerosol exposure to respiratory particles Fomite exposure | Fecal-oral Fomite exposure Aerosol exposure to vomit particles (norovirus) | Direct contact Oral |

| | Respiratory illnesses | Gastroenteritis | Direct contact and blood infections |
|---------------------------------------|--|--|---|
| Incubation periods | Hours to weeks | Hours to months | Hours to days |
| Major symptoms | Cough Fever Nasal congestion Difficulty breathing | Diarrhea Vomiting Abdominal cramping | Fever Septicemia (blood infection) |
| Prevention and control methods | Vaccines (COVID-19/influenza) Staying home when sick Use of masks Hand washing Cleaning and sanitizing | Vaccines (Hepatitis A) Staying home when sick Hand washing Changing gloves often Cleaning and sanitizing | Vaccines (Tetanus) Covering open wounds Hand washing Footwear and PPE Cleaning and sanitizing |

Seasonal influenza is another communicable respiratory disease caused by strains of influenza virus. Respiratory infections such as influenza (flu) and COVID-19 are mainly spread by liquid droplets that come out of the mouth and nose when an infected person with the virus breathes, coughs, sneezes, talks or sings. Visit the BC Centre for Disease Control's [website](#) for more information. Other viruses impacting employee health in food processing facilities include norovirus, Hepatitis A, and the common cold. Table 1 describes viruses and bacteria of concern for food processing facilities. Some viruses and bacteria may spread in more than one route, such as exposures to respiratory particles, infectious particles left onto surfaces (known as fomites), or through direct skin contact.

Communicable bacterial diseases of concern in food processing facilities can be caused by *Salmonella*, norovirus and other infectious agents causing gastroenteritis.⁴ Spread of these infections largely occur via the fecal-oral route, usually from improper hand washing, unclean hands touching other surfaces, and contamination through contact with those surfaces. Hand washing, cough and sneeze etiquette, and good hygienic practices at the workplace can prevent these transmissions. An infected person can spread diseases to others before they show symptoms and when they do have symptoms. Some people may never have symptoms so they may unknowingly spread the disease to others. The time between infection and symptom onset ranges from hours to several months depending on the infection. Some communicable diseases require workers to be excluded from working until test results demonstrate the infection is resolved and can no longer be found in their samples. Workers with acute symptoms should not be at work.

Norovirus is very contagious and can also be transmitted by close contact with the vomit of an infected person. Although norovirus is categorized as a fecal-oral illness (Table 1), aerosolized droplets of vomit in a

washroom where someone has been ill can lead to transmission of norovirus if the suspended particles are inhaled and swallowed. *Staphylococcus aureus* (*S. aureus*) is a bacteria carried in the nasal cavities of approximately 30% of the population. These people are not ill and are known as asymptomatic carriers. *S. aureus* can cause foodborne illness when an infected person sneezes onto and contaminates food. Workers can also get staphylococcus through hand and skin contact with someone who is infected. Similarly, *Streptococcus* bacteria can also spread through direct hand and skin contact, sharing of utensils and water bottles as well as other items.

Another important concern for the food processing industry is the possibility of food contamination and consumer illness due to worker illness. This is a particular concern with norovirus and Hepatitis A virus, bacteria, and other infectious agents. A worker vaccination program (for Hepatitis A), food recall plan, and cleaning and sanitation program are required when these scenarios occur. **Note: COVID-19 and other respiratory diseases such as influenza or cold viruses are NOT spread through food or from handling packaging.**⁵ Normal cleaning and sanitizing of food processing environments will eliminate COVID-19, influenza and cold viruses. Sanitation and recall programs will not be addressed in this document because they are covered elsewhere in recognized food safety procedures, such as Hazard Analysis Critical Control Point (HACCP) systems.^{6,7}

Vaccinations

Vaccination for vaccine-preventable illnesses such as seasonal influenza, COVID-19, and foodborne illnesses (e.g., Hepatitis A) will limit illness transmission between workers. Some employers may require vaccinations for COVID-19 and other communicable diseases before workers enter the facility. Vaccinations may be received at work or may be accessed in other settings in B.C. Employers of food processing facilities are required to support workers in receiving vaccinations for vaccine-preventable illnesses, such as COVID-19, in their communicable disease plan as required by WorkSafeBC. To support vaccinations, employers may consider policies and procedures to:

- Educate workers about the benefits of vaccination and encourage vaccination.
- Provide vaccination opportunities at the work-site. Provide documentation to workers about their vaccine status for their records; and maintain records on who is vaccinated through work campaigns.
- Support workers who may need to leave during their shift to be vaccinated.
- Request workers to share vaccination history so this information can be used to plan work vaccination campaigns and manage outbreaks.
- Implement measures that consider workers who are not vaccinated, such as mask wearing.

The following vaccines are recommended for food processing workers (also see [BCCDC's Routine Immunizations for Adults Who Have Completed a Primary Series of Childhood Vaccines guidelines](#)):

- COVID-19
- Influenza
 - A seasonal vaccine that protects against different strains of influenza virus
- Hepatitis A⁸
 - This vaccine protects against [hepatitis A infection](#), which can cause inflammation of the liver and jaundice. This is particularly important for workers of food processing facilities as this virus can be spread through shared utensils and food.
- [Tetanus & diphtheria \(Td\)](#)⁹
 - Tetanus booster vaccination is recommended for all adults once every 10 years. Tetanus vaccines prevent wound infections caused by *Clostridium tetani*. *Clostridium tetani*, which causes lockjaw, is a vaccine-preventable disease that can occur in many work environments, although not a communicable disease.

¹ *Public Health Act*. Food Premises Regulation. Accessed from:

https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/11_210_99

² WorkSafe BC. Communicable Disease Prevention. Accessed from: <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-guidelines/guidelines-for-workers-compensation-act#SectionNumber:G-P2-21>

³ Food and Agriculture Organization of the United Nations. August 2021. COVID-19: Guidance for preventing transmission of COVID-19 within food businesses. Updated guidance. Accessed from: <http://www.fao.org/3/cb6030en/cb6030en.pdf>

⁴ BC Centre for Disease Control. Communicable Disease Control Enteric Cases and their Contacts: Exclusion from High Risk Settings (Last updated October 2020) Accessed from: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/Enteric%20Exclusions_Oct%202020%20FINAL.pdf

⁵ Food and Agriculture Organization of the United Nations. August 2021. COVID-19: Guidance for preventing transmission of COVID-19 within food businesses. Updated guidance. Accessed from: <http://www.fao.org/3/cb6030en/cb6030en.pdf>

⁶ Ministry of Health. Food Safety and Sanitation Plans Accessed from <https://www2.gov.bc.ca/gov/content/health/keeping-bc-healthy-safe/food-safety/food-safety-sanitation-plans>

⁷ Government of Canada. Recall procedure: A guide for food businesses. Accessed from: <https://inspection.canada.ca/food-safety-for-industry/recall-procedure/eng/1535516097375/1535516168226>

⁸ <https://www.healthlinkbc.ca/tests-treatments-medications/medications/hepatitis-vaccine>

⁹ <https://www.healthlinkbc.ca/healthlinkbc-files/tetanus-and-diphtheria-td-vaccine>