

Chapter 3: Infection Control and Outbreak Management

Cleaning and Disinfecting

Good cleaning and disinfecting practices can help prevent outbreaks of illness within your child care centre. Having a cleaning schedule is the first step to ensuring it is being done effectively and regularly. It is the responsibility of staff to ensure the child care centre and its equipment such as toys, tables, and bathrooms remain clean and sanitary to help protect the health of both children and staff.

Definitions:

Cleaning - The act of cleaning is to remove dirt and debris. The physical action of rubbing a towel on a surface creates friction which is needed to remove visible dirt that may be on the surface. Cleaning is necessary for a disinfectant to be effective.

Disinfection – The act of disinfecting is to destroy (kill) **most** disease-causing microorganisms (e.g. bacteria and viruses) on objects or surfaces using high temperatures or chemical solutions. Chemical disinfectants can be classified into three levels (low, intermediate and high-level disinfection) according to the type of product used, their concentrations and contact time. Bleach is a common disinfectant that is very economical and effective but requires longer contact times. However, other disinfectants may also be used.

Sanitizing - Food contact surfaces must be washed and sanitized in a child care centre (e.g. the kitchen, dining tables, and high chairs). The act of sanitizing involves reducing the number of disease causing microorganisms on objects or surfaces to levels considered safe without adversely affecting the quality of a food product or its safety.

Critical Surface – Surfaces that have the potential to be contaminated by blood, bodily fluid or fecal matter either through intentional or accidental contact. These surfaces require a high level strength disinfectant following cleaning.

Non-Critical Surfaces – Surfaces that do not have the potential to be contaminated by blood, bodily fluids or fecal matter. These surfaces require a low level strength disinfectant unless otherwise directed following cleaning.

Food Contact Surfaces – Surfaces that food is handled, stored, prepared, transported or consumed on, and also includes utensils used for eating. These surfaces must be sanitized with a food grade sanitizer following cleaning. Ensure your sanitizer does **NOT** require a rinse with potable water after applying. Read the manufacturers label to verify.

Hand Hygiene

[Hand washing](#) must be practiced by both staff and children to help prevent the spread of germs. Children’s hands must be washed before eating, after using the bathroom or a diaper change, after outdoor play, after sneezing or coughing into hands, or anytime hands become soiled. Alcohol based hand sanitizer (between 60% - 95% alcohol) is not a substitute for hand washing and should only be used when soap and water is not available such as when children are outside playing or on field trips. Supervision of children is required to monitor effective use and to avoid potential ingestion or inadvertent contact of hand sanitizers with eyes and mucous membranes.

Disinfecting in a Child Care Facility

To properly disinfect, surfaces must be washed first with a soap detergent and then disinfected. The [Child Care Centre Cleaning and Disinfecting Schedule](#) may assist in ensuring all areas are properly cared for.

Level of Disinfection	When and Where to Use	Types of Disinfectants & Active Ingredients	Contact Time
High-Level Kills all bacteria, fungi and viruses	<ul style="list-style-type: none"> • On critical surfaces including the diaper change area and potty chairs • During an outbreak • Any confirmed case of viral/bacterial infection (e.g. norovirus or rotavirus) • Blood spills, vomit, body fluids or fecal contamination 	5.25% Chlorine Bleach 5000ppm*	Refer to our instruction chart on proper dilutions and required contact times
		7% Accelerated Hydrogen Peroxide	10 minutes
		6% Hydrogen Peroxide	45 minutes
Low-Level Kills some virus, bacteria and fungi	<ul style="list-style-type: none"> • On non-critical surfaces including floors, walls, washrooms, toys, countertops, shelving units • Mouthed toys 	5.25% Chlorine Bleach 100ppm or 500ppm*	Refer to our instruction chart on proper dilutions and required contact times
		Quaternary ammonia compound	Follow manufacturer’s instructions

*For further information on how to mix a bleach and water disinfectant solution, refer to Public Health Ontario’s [Chlorine Dilution Calculator](#).

Critical Surfaces

Potty Chairs and Toilet Seat Inserts

- Store potty chairs and toilet seat inserts in a place that is not accessible to children unless they are supervised.
- Potty chairs must be cleaned and disinfected after each use.
- Do not use bathroom sink to dispose of potty material or to clean and disinfect potty. Use designated utility sink.
- Potty chairs do not replace the building code requirement for number of toilets in a facility.
- Clean and disinfecting toilet seat inserts at least daily and as needed.

Diapering

Diapering can pose a significant health risk in your child care centre unless extra care is taken with the handling of the soiled diaper and the work surface. Remember the following objectives:

- To prevent the spread of infectious disease among staff, children and their families
- To provide adequate skincare and comfort to each child
- To properly store clean diapers and dispose of soiled ones
- To keep children safe during diapering
- To avoid cross contamination by keeping diapering area away from food preparation area

Diaper Change Area

The diaper change area must be safe and sanitary for the child. Constant supervision while the child is on the change table is essential. The surface must be made of smooth, non-porous, and non-absorbent material allowing proper cleaning and disinfecting. Materials necessary for cleaning and disinfecting must be conveniently located to the diaper change area and the table or mat must be cleaned and disinfected after every diaper change. The surface cannot be quilted or have buttons (buttons and stitching trap germs on the surface, allowing them to enter the inside padding). It is also important to regularly inspect surfaces for rips, tears and pin holes. Establish a procedure for proper diaper changing that includes hand washing, disinfecting the diaper changing surface, and proper disposal of the soiled diaper and wiping material and post it in the change area.

A hand sink must be adjacent to each diapering area. Staff must wash their own hands and the child's hands after the diaper has been changed. Ensure the hand washing sink is properly equipped at all times with liquid soap in a dispenser, paper towels and garbage receptacle with a lid.

Recommended Diaper Change Procedure

1. Assemble supplies within easy reach.
2. Wash your hands. Disposable gloves should be worn when a child has diarrhea. Remember gloves are not a substitute for hand washing.
3. Place child on the change table. Remove soiled diaper and fold it inwards.
DO NOT LEAVE CHILD UNATTENDED ON TABLE AT ANY TIME.
4. Clean child's skin with moist disposable wipes. Discard wipes after use.
5. If wearing gloves, discard them now.
6. If applying ointment, use a clean, disposable applicator to obtain ointment from the container.
7. Wash or wipe hands with a clean, moist wipe and discard. Diaper and dress the child.
8. Discard soiled diaper into a plastic-lined receptacle. Double bag soiled clothing for parents. Do not rinse soiled clothing or cloth diapers.
9. Wash your hands and then wash the child's hands. Return child to the play area.
10. Clean and disinfect the diaper change table after each child*. Make sure that the entire surface of the change table remains wet for the appropriate contact time.
11. Allow diaper change surface to air dry.
12. Wash your hands.
13. Report any abnormal skin or stool conditions to the parent, such as skin rash, unusual stool consistency, colour, odour or frequency).

Note: Soiled clothing or cloth diapers should not be washed at your centre. Empty the solid material into the toilet, and then place soiled items into a plastic bag to be send home with the parents.

* A single use, non-absorbent, disposable or personal liner can be used to substitute cleaning and disinfecting ONLY when there is no visible contamination or loose stools between successive groups of children. If the liner is visibly soiled or has loose stool, the underlying change mat must be washed and disinfected before the next diaper change. The change mat must be washed and disinfected after staff are finished changing the group of children.

Sample Procedure for Cleaning Blood or Bodily Fluid Accidents

1. Assemble materials required for dealing with the spill prior to putting on personal protective equipment.
2. Inspect the area around the spill thoroughly for splatters or splashes.
3. Restrict the activity around the spill until the area has been cleaned and disinfected and completely dry.
4. Put on gloves; if there is a possibility of splashing, wear a gown and facial protection (mask and eye protection or face shield).
5. Confine and contain the spill; wipe up any blood or body fluid spills immediately using either disposable towels or a product designed for this purpose. Dispose of materials by placing them into regular waste receptacle.
6. Wash the entire spill area with a soap and water starting from the furthest point (least contaminated) to the centre of contamination (most contaminated).
7. Rinse the area with clean water and removed all gross waste and detergent.
8. Disinfect the cleaned area with a high level disinfectant and allow it to stand for the amount of time recommended by the manufacturer.
9. Wipe up the area again using disposable towels and discard into regular waste.
10. Care must be taken to avoid splashing or generating aerosols during the clean-up.
11. Remove gloves and perform hand hygiene.

Note: Always start cleaning and disinfecting surfaces from the area of least contamination to the area of most contamination to confine the spread of disease as much as possible.

Adapted from PIDAC: Best practices for Environmental Cleaning for Prevention and Control of Infections, May 2012

Non-Critical Surfaces

Play is an essential part of a successful child care program. However, staff must recognize that while beneficial, toys and sensory play equipment can become easily contaminated with germs that can result in illness and outbreaks. Establish and follow a regular cleaning and disinfecting schedule for toys and other play environments. Post the schedule in your centre and ensure staff is aware of their responsibilities. Cleaners and disinfectants must be clearly labeled and stored separately from food and in an area that is not accessible to children

Procedure for Cleaning and Disinfecting Toys

Refer to the [Child Care Centre Cleaning and Disinfecting Schedule](#) to ensure you are cleaning and disinfecting toys as often as required to reduce the transmission of disease and follow these simple steps:

1. Use soap, warm water and a designated scrub brush and scrub the surface of the toy
2. Rinse the toy in clean, warm water.
3. Apply the appropriate disinfectant, ensuring the toy stays wet for the proper contact time
4. Allow the toy to air dry

Water and Sensory Play Tables, Play Dough, Sand Play Tables

General rules:

- If it hits the floor, discard it
- Replace as outlined in cleaning guide
- Discontinue if children are ill
- Food play is not considered edible

SENSORY PLAY TABLES ARE NOT TO BE USED DURING AN OUTBREAK OF COMMUNICABLE DISEASE DUE TO THE HIGH RISK OF DISEASE TRANSMISSION

Personal Items

An important component of preventing the spread of disease in your child care centre is to ensure children's personal items are clean, stored separately from one another and changed regularly. Personal items must be clearly labeled with the child's name to avoid confusion of ownership and cross contamination.

Toothbrushes

Each child must have their own toothbrush and it must be clearly labeled with the child's name. Toothpaste must be dispensed from the tube in a manner that will not contaminate the rest of the toothpaste. That is, do not apply paste directly onto the toothbrush. It is recommended to dispense toothpaste onto a single-use, disposable wooden spatula or clean piece of paper towel for each child. The child can then scoop the toothpaste up onto their toothbrush. When storing toothbrushes following these rules: keep out of reach of children, store separately so they do not touch one another, the brush end must be covered, air dry brushes between each use, discard if there is a question of ownership or if brushes touch one another or a child accidentally uses the wrong toothbrush, the holder must be non-absorbent and cleaned and disinfected regularly.

Hair Brushes

If a child supplies their own brush or comb, it must be clearly labeled with the child's name and not used on any other child in the centre. If your child care centre supplies hair brushes that are considered communal (shared between children), they must be cleaned with soap and water after being used on each child and stored in a clean, dry container. Hair brushing is a low risk activity when it comes to the transmission of disease and, as such, brushes and combs do not require disinfection.

Creams and Lotions

Creams and lotions must be dispensed in a manner to prevent contaminating the original container. Ensure staff washes their hands prior to applying any cream. If product is being dispensed from a jar a new applicator must be used to dispense it every time.

Blankets

Every child must have their own blanket used for nap time which cannot be used for any other child. Blankets must be laundered at least weekly or anytime it becomes soiled.

Outbreak Management

An outbreak is the occurrence of cases of illness in excess of what would normally be expected in your child care centre. Early recognition and reporting an outbreak can help decrease the number of children and staff affected as well as shorten the duration of the outbreak. When a child experiences illness at your centre it is important to care for the child until they are safely returned to their parent/guardian. Advise the parent/guardian of the health concerns noted and remind them of the requirements outlined in the exclusion policy.

Enteric (gastrointestinal) diseases or respiratory infections are the most common causes of outbreaks in a child care centre. In general, signs and symptoms of enteric illnesses include diarrhea, fever, nausea and vomiting. Diarrhea is a change in the child's normal stool and is often a watery consistency and can be accompanied by a foul odour. It is important to determine whether the diarrhea may be a side effect of a medication, change in diet or another reason unrelated to an enteric illness. A respiratory infection usually starts with the onset of a fever and may be accompanied with one or more of the following: runny nose, cough, nasal congestion, sore throat, chills, muscle aches, malaise, poor appetite and possibly diarrhea in young children.

The following information is designed to assist staff in taking the appropriate, required action when the initial signs and symptoms of illness appear in children and/or staff of your centre:

- Establish and follow your Exclusion Policy for staff and children
- Establish and follow your Outbreak Management Policy
- Keep your [Child Care Centre Routine Illness Surveillance](#) Form up to date
- Contact Algoma Public Health **immediately at 705-759-5286** if you suspect an outbreak is occurring in your centre
- Follow recommendations provided by the Public Health Inspector. Some common recommendations include:
 - Discontinue sensory play
 - Limit group activities
 - Increase cleaning and disinfection frequency
 - Increase disinfection level
 - Increase hand hygiene
 - Notify parents and families
 - Advise parents of ill children to document symptoms and duration
 - Cohort staff to care for ill children when possible
- Assist the investigating Public Health Inspector by collecting requested specimen samples (e.g. stool sample) and providing necessary information regarding the health status children and staff.
- Immediately report changes or provide updated information about the outbreak to the investigating Public Health Inspector including daily reports about new and resolved cases.