

INFECTION PREVENTION AND CONTROL



TABLE OF CONTENTS

INFECTION PREVENTION.....	1
How Infections Spread.....	1
Infection Prevention.....	3
Infection Control Program - Key Points.....	3
ENVIRONMENTAL HAZARDS & CONTROLS.....	23
Arts & Crafts.....	23
Animal Control.....	25
Sensory Table Guidelines.....	30
Health Risks and Disposal of Used Needles & Condoms.....	32
Protocol for Needlestick Injury.....	32
Managing Human Bites in Your Centre.....	33
Procedure for Cleaning Up Blood Spills.....	33

INFECTION PREVENTION

Why are we concerned about infection prevention and control in day nurseries?

Respiratory and enteric illnesses are spread at a higher frequency in day nurseries. The following factors contribute to children being more susceptible to infection than healthy adults:

- Children have a limited ability to fight infection as their immune systems haven't fully developed.
- Children usually go through series of immunizations for various diseases; therefore depending on their age they may not have had enough time to complete the entire series.
- Children may not have strong hygienic practices; these include covering their nose and mouth when they cough or sneezing into their elbows, and washing hands immediately after coughing or sneezing.
- Most children have a lack of prior encounters with infectious agents. This means that while they were being raised at home they were exposed to a limited number of germs. Diseases spread easily in day nurseries because large numbers of children from different families and backgrounds spend hours together in one place every day.

How Infections Spread

Before you can prevent infections, it is important to understand how they are spread. Infections are caused by bacteria, viruses and other microscopic organisms. These germs are found in the environment (water, soil, air) as well as in and on humans, in our body secretions (stool, mucous) and in the tiny droplets that are generated by breathing, coughing and sneezing.

Infections are spread through different means:

Stool

- Feces is loaded with germs that can cause diarrhea or other infections of the intestinal tract. If personal hygiene is insufficient, stool may contaminate hands, food, water, surrounding objects such as toys and surfaces.
- The easy spread of intestinal infections is also due to the fact that some germs can survive on surfaces and objects for long periods of time.
- Proper hand hygiene is the most effective way to prevent the spread of intestinal infections.

Droplet spread

- Germs that cause colds, influenza, strep throat etc. are found in the saliva and secretions of the nose and mouth. Colds and other minor infections affecting the eyes, nose and throat, are the most frequent illnesses in young children.
- When people cough, sneeze, spit, and/or have runny noses the germs can spread. The germs can then be inhaled, or they may land in a person's eye, nose or mouth. Indirect spread may also occur because some viruses can survive on surfaces (e.g. counter tops or toys) for days at a time.
- Because the respiratory viruses can be found in the nose and throat of children for several days before they show signs of an illness, it is important to follow good infection control practices at all times.

Contact with blood

- The skin offers an excellent barrier when in contact with blood.
- Several infections may be spread by direct contact with blood if there is a break in the skin (blood to blood) or direct contact with mucous membranes (e.g. eye, mouth).
- A small amount of blood or body fluids may be enough to cause infection, so whenever any amount of blood or bloody body fluids is noticed, personal protective equipment such as gloves must be used for proper cleaning and disinfection of exposed objects.

Direct physical contact

- Infections, particularly skin infections such as impetigo and ringworm, are spread by direct physical contact. This is when children play together and one child touches the infected skin area of another child.

Contaminated Objects

- Contaminated objects like toys, towels, even food and water, can also infect people. It is important that all objects are properly cleaned and disinfected and all food and water are from approved sources.

Infection Prevention

The most important concept in infection control is prevention.

Why?

- People can spread some infections without being sick themselves.
- Several diseases are contagious before any symptoms appear or after the symptoms are gone.
- Just one exposure to germs can be enough to cause an infectious disease.

Infection Control Program - Key Points

1. Hand hygiene
2. Written policies
3. Daily observations of children & communication (with parents and local health unit)
4. Immunization
5. Proper diaper changing and toileting procedures
6. General hygienic practices
7. Cleaning and disinfection
8. Food safety
9. Education (training and monitoring)

1. Hand Hygiene

Hand hygiene refers to removing or killing germs on the hands as well as maintaining good skin integrity. There are two methods of removing/killing germs on hands: washing with soap and running water for a minimum of 15 seconds or using an alcohol-based hand rub. The single most important thing you can do to control infections is to keep hands clean! For children under the age of five, soap and water is the preferred method for washing hands.

Child care staff and parents are responsible for teaching children the proper way to wash their hands. Young children who can wash their hands on their own must still be supervised to ensure proper technique.

Staff must remember to lead by example!

Use a hand wash sink supplied with hot and cold running water, paper towels and liquid soap in dispensers. Antibacterial soap is not required. It is the mechanical friction of rubbing hands together that removes germs. Hot water temperatures should not exceed 49°C (110°F) to prevent scalding.

To wash hands properly, rub all parts of the hands and wrists with soap and water. **Wash hands for at least 15 seconds.** Pay special attention to the areas of the hand most frequently missed.

- Keep nails short.
- Avoid wearing rings*.
- Avoid artificial nails or nail varnish.
- Remove watches and bracelets*.
- Wash wrists and forearms if they are likely to have been contaminated.
- Make sure that sleeves are rolled up and do not get wet during washing.

*Jewellery is very hard to clean and hides bacteria and viruses.

You should wash your hands thoroughly whenever there is any chance of coming into contact with germs. Failure to wash your hands properly can result in the spread of germs that can cause illnesses.

Supply the hand wash sink with paper towels and liquid soap, both in dispensers. Bar soap is not recommended.

Hand Care

Intact skin is the first line of defense against infection; careful attention to skin care is therefore an essential part of the hand hygiene program. If skin conditions or breaks in the skin exist, the individual should be referred to a physician for assessment. Hand lotion prevents drying and cracked skin. Pump-type containers are recommended.

If containers are reused, the containers and the pumps should be washed and dried before refilling.

Alcohol-based Hand Rubs (ABHRs)

Alcohol-based hand rubs are a good alternative to soap and water when children's hands are not visibly dirty and access to a handwashing sink is limited (e.g. field trips). They are also an excellent tool for staff to use while moving between tasks in the centre. Alcohol-based hand rubs (ABHRs) kill the germs on hands, including temporary illness causing bacteria that are picked up off doorknobs, light switches and other surfaces that hands come into contact with.

Only hand rubs with alcohol as the main ingredient should be used in child care settings. The effectiveness of the sanitizers depends on the amount and type of alcohol used. Alcohol-based hand rubs should contain a concentration of 60-90% alcohol. The products should have a Drug Identification Number (DIN) or Natural Product Number (NPN) meaning they are registered with Health Canada. Non-alcohol based products may not kill common bacteria and viruses found in child care and are not recommended.

As per the Office of the Ontario Fire Marshal, ABHRs are normally dispensed and used in very small quantities therefore they present minimal fire hazards under normal use. The fire risks can be reduced through education regarding the proper application of ABHRs, including the risk to health if used incorrectly.

Another noted concern is regarding the alcohol absorption in children when regularly using ABHRs. As per the Ontario Poison Control centre, the amount of alcohol absorbed by the skin is minimal and once the alcohol has evaporated, licking of the hands carries no chance of alcohol intoxication.

The following precautions for ABHRs are recommended in all child care settings:

- Dispensing should occur only under the direct supervision of staff.
- ABHRs should be in secure wall dispensers or individual pump bottles that are kept in a location not easily accessible to children when not in use (eg. locked cupboard at the end of the day)
- Dispensers should be clearly labelled.
- ABHRs should be rubbed on hands until hands are completely dry.
- Children and staff should avoid exposure to open flames during and immediately after application.

Gloves

Gloves are not a substitute for handwashing! Gloves can provide a protective barrier against germs that cause infection but offer little protection beyond what is achieved through good handwashing.

- Hands must be washed before and after using gloves.
- Contaminated gloves must be removed and discarded prior to touching clean environmental surfaces.
- Gloves should be single use, never washed or reused.
- Non-latex gloves should be made available in case of latex allergies.
- Care should be taken to prevent touching the skin with the outside of the soiled gloves during removal.
- Gloves need to be disposed of in a lined garbage container.

Gloves are recommended when:

- the caregiver has cuts or open sores on their hands
- there is contact with blood, feces or other body fluids.

Steps to Proper Handwashing:

- Remove hand and arm jewellery.
- Wet hands and wrists and leave the water running.
- Use a sufficient amount of soap.
- Lather soap and scrub hands well, palm to palm.
- Scrub in between and around fingers.
- Scrub back of each hand with palm of other hand.
- Scrub fingertips of each hand in opposite palm.
- Scrub each thumb clasped in opposite hand.
- Scrub each wrist clasped in opposite hand.
- Rinse thoroughly under running water.
- Wipe and dry hands well with paper towel or single use towel.
- Turn off water using paper towel or single use towel.
- Throw the paper towel into a lined garbage container or place single use towels in a laundry hamper.



Procedure for Infant Handwashing:

- Clean the infant's hands thoroughly with a damp paper towel moistened with liquid soap.
- Rinse the infant's hands from wrists to fingertips using a fresh paper towel moistened with clear water.
- Dry the infant's hands with a fresh paper towel.
- Turn off the faucet using a paper towel and throw out the towel into a lined garbage container.
- Wash your own hands.

Procedure for Toddler and Preschooler Handwashing:

- Wet the child's hands.
- Squirt a drop of liquid soap onto the child's hands.
- Help wash all areas of the child's hands for a minimum of 15 seconds.
- Rinse the child's hands under the tap.
- Dry the child's hands using a fresh paper towel.
- Turn off the faucet using a paper towel and throw out the towel.
- Wash your own hands.

Steps to Disinfecting with Alcohol Hand Sanitizers*:

- Remove hand and arm jewellery.
- Apply a nickel size amount of sanitizer to open palms.
- Rub hands together, palm to palm.
- Rub in between and around fingers.
- Rub back of each hand with palm of other hand.
- Rub fingertips of each hand in opposite palm.
- Rub each thumb clasped in opposite hand.
- Rub each wrist clasped in opposite hand.
- Keep rubbing until hands are dry. Paper towels are not needed.



When to wash?

Staff should wash their hands:

- when they arrive at work
- after sneezing, coughing, or blowing their nose
- after changing a diaper
- after using the toilet or taking a child to the toilet
- before preparing food or eating
- before feeding an infant or child
- before giving any medications
- after caring for an ill child
- after direct contact with nasal secretions (after wiping a child's nose)
- before and after applying a bandage or other first aid
- after cleaning up any body fluid (blood, mucous, vomit)
- after cleaning and sanitizing procedures
- before and after applying an ointment
- after handling chemicals
- after removing disposable or household rubber gloves
- after handling pets or animals
- after removing children's winter boots
- when hands are visibly dirty for any other reason.

Children should wash their hands:

- after using the toilet or potty
- after diaper changes
- before eating
- before handling food in nutrition activities
- after eating snacks or meals
- after using play/sensory materials (paint, sand etc.)
- after handling pets and other animals
- after removing their own winter boots
- when hands are visibly dirty for any other reason.

2. Written Policies

It is essential to put all important information, including health information, in writing. Writing down procedures for potential events that may arise will help create an organized response when things go wrong. As well, they will make the day-to-day tasks by staff much easier to follow. The Simcoe Muskoka District Health Unit recommends *Well Beings: A Guide to Promote the Physical Health, Safety and Emotional Well Being of Children in Child Care Centres and Family Day Care Homes, 3rd edition, 2008* by the Canadian Paediatric Society to assist you in developing and applying policies in your child care centre. Well Beings is also available online at:

www.caringforkids.cps.ca/wellbeings

Parents should be given a copy of all written policies at the time of their children's enrolment and whenever there are changes to the policies. Written policies can help explain what is expected of the parents as well as the child care staff. These policies should be reviewed at least once a year and more often if there are repeated illnesses in the centre.

What Should Health Policies Be About?

Child and Staff Immunizations

- Maintain immunization information and record of any physician diagnosed vaccine preventable disease for children at the centre. For example, if a child was diagnosed with measles, mumps, pertussis, rubella etc., this should be noted on the child's file.
- Immunization histories for children should be reviewed every six months with parents.
- Questions about accurate immunizations should be directed to the Simcoe Muskoka District Health Unit's Vaccine Preventable Diseases Team.
- A current record of each staff member's vaccination status with respect to recommended immunizations should be kept on file.

Communication

- The Simcoe Muskoka District Health Unit - nurses and health inspectors are valuable resources for health information and implementation of health policies, and they welcome your questions.
- Parents of children – it is vital to constantly communicate with the parents of children in your child care centre. They will provide important information about the health of the child and any potential circumstances that should be monitored.
- Staff and Management – policies should help staff and management communicate about health issues as well as provide direction.

Sanitation and Food Safety

- The policies surrounding sanitation should define responsibilities so that all staff are aware of their role within the centre. Diapering, toileting, cleaning and disinfection should all be reflected in the policies.
- The policies about food safety should work together with the Ontario Food Premises Regulation R.R.O. 562/90.

Notifying Public Health of a Reportable Disease

- Ontario Reportable Diseases Regulation R.R.O. 559/90 is a list of diseases to be reported to the local medical officer of health (public health unit).
- As soon as any child or staff within your facility is diagnosed by a physician with one of these diseases, it is your responsibility to notify the health unit.
- A current copy of the Reportable Diseases list is attached.



Health Evaluations

- Many children and staff have health conditions that could affect their response to infection as well as their wellbeing at the child care centre. Those with allergies, asthma, diabetes, epilepsy, etc. may require additional medication that has to be administered during the day or in the event of an emergency.
- Health assessments, usually done by physicians, will help guide staff in taking the proper steps when children and staff are exposed to certain infections.
- A daily health evaluation should be conducted and documented on each child upon entrance to the centre.

Exclusion

- When staff or children are ill, it is essential that they are sent home from the centre as soon as possible or prevented from entering the centre. The ill child should be isolated in a supervised area that is separate from the rest of the children until they are picked up by parents. This will decrease the risk to others in the centre of getting that illness.
- If the requirements for exclusion are written in the parent handbook and in employee policies, it will make it easier to deal with challenges that may arise (e.g. with parents).
- Policies about ill staff should outline when an employee can or cannot come to work, and whether they can work with children while at the centre.
- In general, ill children and staff should be asked to stay away from the centre until they have been symptom-free for at least 24 hours. Exclusion periods for specific symptoms or diseases should be reviewed with the health unit.
- Policies about ill children should consist of pre-screening, isolation procedures and definitions of words like “fever”, “diarrhea” etc.

Administration of Medication

- Caregivers must be familiar with child care regulations for administering medication.
- No medication should be given to a child unless parental permission has been obtained. Over-the-counter medicines should not be given to children already taking prescription medication unless a doctor has said it is okay (this should be in writing).
- Acetaminophen can only be given when parents have written consent letters and usually parents must be notified prior to a child receiving acetaminophen.
- Only designated staff should administer medication.
- Stored medication should be out of reach of children, in a locked cupboard, labelled and separated so that no medication could be mixed up.

Childcare centres may develop additional policies, as they feel necessary.

Outbreak Management

When there is an increase in the baseline level of illness in the centre, an outbreak may need to be declared. Items to consider in an outbreak policy:

- Identifying a potential or confirmed enteric or respiratory outbreak.
- Notification of health unit.
- Communication with parents (how to keep parents informed on outbreak status, exclusion requirements for affected children and signs & symptoms to monitor for).
- Isolation of ill children.
- Exclusion of ill children/staff (length of time based on germ (if known) and health unit recommendations).
- Administrative requirements (posting of signage indicating outbreak, daily line list communication faxed to the health unit along with outbreak management checklist).
- Submission of stool and/or food specimens (stool kit location, procedure for collection and submission, parental consent).
- Outbreak control measures (increased hand hygiene, increased cleaning and disinfecting, use of high level disinfectant – type and concentration, discontinuing sensory play, cancellation of field trips etc.).

Emergency Preparedness

- It is essential that centres be prepared for any type of emergency that may arise. It could be a parent unable to pick up a child due to weather, several days without power, flooding, or an infectious disease emergency such as a pandemic.
- Child care centres should develop policies that include back up plans, criteria for closing the centre, grief counseling, staff expectations during an emergency etc.

Sample letter to parents when excluding ill children

Name of Child: _____ Date: _____

Dear Parent or Guardian,

Today at the childcare centre, your child was observed to have one of the following symptoms:

- diarrhea (2 or more loose stools)
- difficulty breathing
- elevated temperature
- pink eye with swelling or discharge
- severe or whooping cough
- severe itching of body or scalp
- severe headache with elevated temperature
- vomiting
- unusual spots, sores or rashes
- yellow skin or eyes (jaundice)
- cranky or unusual behaviour
- infected skin patches
- swelling or discharge of pus
- sore throat with elevated temperature
- other: _____

We suggest you monitor your child and if these symptoms persist contact your health care provider. We remind you to please keep your child at home until these symptoms are resolved (as per child care policy or public health recommendation) or you obtain clearance from your physician.

Thank you,

Your Child Care Centre

3. Daily Observations of Children & Communication with Parents

Children's overall status (mental, physical, emotional etc.) should be observed daily. Upon arrival, a formal list should be reviewed to screen for any signs of illness. This formal health evaluation should be documented. Communication between the child care centre staff and parents is crucial as symptoms in the previous evening or overnight lend valuable clues to a potential illness. Throughout the day, there should also be ongoing monitoring. Changes in a child's behaviour or appearance are often the initial signs that a child is starting to feel unwell.

Signs of discomfort include:

- severe coughing or breathing trouble
- eyes – tears, discharge, colour, swelling
- skin – bruises, spots, rashes, infected areas, itchy skin and scalp
- urine and bowel movements – strong odour or dark-coloured urine, diarrhea, grey or white bowel movements
- behaviour – unusual behaviour, irritability, withdrawal, loss of appetite
- general appearance – fever, trouble swallowing, vomiting.

4. Immunizations

Immunization is the most effective way of preventing common childhood infections. Tetanus, diphtheria, pertussis (whooping cough), polio, measles, mumps, German measles (rubella), and influenza are common childhood infections that can be prevented by vaccines.

According to the National Advisory Council on Immunization (NACI) regarding influenza immunization [for the 2010/2011 year](#):

People capable of transmitting influenza to those at high risk include:

- Health care and other care providers in facilities and community settings who, through their activities, are capable of transmitting influenza to those at high risk of influenza complications.
- Household contacts (adults and children) of individuals at high risk of influenza-related complications (whether or not the individual at high risk has been immunized):

- Household contacts of infants <6 months of age who are at high risk of complications from influenza but for whom influenza vaccine is not authorized; and members of a household expecting a newborn during the influenza season.
- **Those providing regular child care to children <24 months of age, whether in or out of the home.**
- Those who provide services within closed or relatively closed settings to persons at high risk (e. g. crew on a ship).

Immunizations should be in line with the Canadian Immunization Guide. Any further questions about immunizations should be directed to the Vaccine Preventable Diseases Team at the Simcoe Muskoka District Health Unit.

For information on vaccine preventable diseases see Chapter 5.

5. Proper Diaper Changing & Toileting

Children can carry many illnesses and unintentionally cause the transmission of diseases through their behaviour. One of the reasons is that they have not learned how to properly use the toilet or are still in diapers.

Food handlers must not be responsible for changing diapers or helping children on the potty/toilet on the same day. This practice alone will decrease the potential for infection to be spread. The following will also help reduce the risk of illness.

Diaper Changing

- Gloves are generally not recommended because they provide a false sense of security to child care workers – staff think if their hands are covered, they are protected from illness but could actually be passing germs from one child to another. The diapering routine should not require staff to have direct contact with feces therefore gloves are not required. Only if diarrhea is present, would gloves be recommended. If single use disposable gloves are being used, the gloves must be disposed, and the hands washed, before and after each diaper change. Gloves should be removed in a manner not to contaminate the hands.
- The diaper changing area should be in a completely different location than the food preparation area and never used for other purposes.
- There should be a handwash sink with available hot and cold running water, liquid soap and paper towel in a dispenser located near the diaper changing area for proper handwashing between each child.
- Infants should be changed often as moisture, lack of air and heat is a great environment for the growth of bacteria.

- Children should be changed lying down, not standing up.
- Disposable diapers are always recommended and should be promoted and insisted upon during an enteric outbreak.
- Each child should have their own cream and ointments. The containers should be labeled with their name and dispensed in squeeze bottles or have dispensing utensils to prevent cross contamination.
- Notice any irregularities in the child's bowel movements and report to supervisor if abnormal.
- Clean and disinfect the changing surface after each child. Allow appropriate contact time for the disinfectant on the diaper pad.
- Wash the child's hands (and your own) immediately after a diaper change.

Toilet Training

- The toilet learning area should be in a completely different location than the food preparation area and never used for other purposes.
- Remove a child's diaper and if it is soiled, clean the child as outlined in the diaper changing routine. This will decrease the spread of germs and remove as many sources of contamination as possible. Then place the child on the toilet or potty. Toilet inserts are recommended over potties.
- After the child has urinated or had a bowel movement, wipe the child from front to back. This will reduce contamination of the vagina and urinary tract. Flush the toilet and dispose of diaper as necessary.
- Assist the child in handwashing.
- If using a potty, rinse out the potty and flush the water down the toilet. Wear gloves if stool is present and is not easily removed with paper towel. The contents of the potty should not be cleaned and/or discarded in a handwashing sink.
- A high level disinfectant should be used to disinfect the potty or toilet if feces are present. Allow contact time for the sanitizer.
- Dry the diaper area with a single-use towel and dispose of the towel appropriately.
- Wash your hands.

Caregivers are encouraged to talk with parents about their child's progress in toilet learning. It is important to record both diapering and toileting in regards to number of bowel movements, diarrhea, unusual odour, if blood was present and if there is any skin irritation.

6. General Hygienic Practices

The following guidelines are important for reducing the spread of infection:

- Cover all open or moist cuts or sores with a clean, dry bandage.
- Provide separate storage lockers or cubbies for the personal items and clothing for each child and staff.
- Throw kleenex into a plastic-lined garbage with lid.
- Do not share personal amenities (combs, toothbrushes, personal bedding) among the children and store items so that they do not touch each other.
- Soiled clothing should be placed in a plastic bag and sent home daily with the parents for laundering.

Cribs, Mattresses, Sleeping Cots & Mats

- All crib mattresses, sleeping cots and mats should be smooth, non-absorbent and easily cleaned.
- All crib mattresses, sleeping cots and mats should be provided with a secured protective sheet.
- All cribs, cots or mats should be labeled with the child's name.
- It is recommended that a 46 cm (18 in) space be provided between cots when children are sleeping.
- Alternating head and feet is also recommended.
- Crib mattresses, cots and mats should be cleaned and disinfected on a weekly basis and immediately if soiled by a child.
- All linen should be washed at least once a week.
- All sleeping cots and mats should be stored in a sanitary manner. Linen should not hang down from one cot to another. For safety reasons, this storage area should be away from play areas.
- In an outbreak situation, all cots, mattresses, mats and linens will require more frequent cleaning, disinfecting and laundering.

7. Cleaning and Disinfection

DEFINITIONS

Clean: The physical removal of foreign material (soil, dust) and organic material such as blood, secretions, excretions and microorganisms (bacteria, viruses etc.). Cleaning generally removes and reduces the reservoirs of potential pathogenic organisms but does not kill them. Therefore, disinfection is necessary in a child care setting.

Disinfection: The process that kills or destroys most disease-producing microorganisms and viruses. Disinfection can occur with chemicals or hot water (82°C for 45 seconds). Chemical disinfectants are classified as high level, intermediate level, and low level.

Cleaning and disinfecting of the child care centre is essential as some germs can survive for long periods of time on dry surfaces such as table tops, door knobs etc. Also, some diseases require very few germs to cause infection, so it is critical that constant cleaning and disinfecting of a facility occur.

The main reason for cleaning a surface is to remove dirt. The rubbing action of a cloth or sponge on a surface creates friction, which is needed to remove any dirt and germs. Although cleaning removes many germs, it may not remove them all; therefore, disinfecting is necessary for some items in a child care setting. Child care centres should only use disinfectants that are registered with Health Canada and have a Drug Identification Number (DIN).

A Drug Identification Number (DIN) is a computer-generated eight digit number assigned by Health Canada to a drug product prior to being marketed in Canada. A DIN uniquely identifies the following product characteristics: manufacturer; product name; active ingredient(s); strength(s) of active ingredient(s); pharmaceutical form.

A DIN lets the user know that the product has undergone and passed a review of its formulation, labeling and instructions for use. A product sold in Canada without a DIN is not in compliance with Canadian law. All chemical disinfectants should have accompanying Material Safety Data Sheets (MSDS) and product information sheets that staff should reference.

Ensure manufacturer's guidelines are followed when using cleaners and disinfectants. If advised to mix a product (e.g. bleach), prepare fresh disinfecting solutions daily (unless otherwise specified on product label) and provide appropriate chemical test strips to verify strength.

All chemicals, soaps, detergents, laundry supplies etc. must be stored safely out of the reach of children, usually in a locked cupboard. Pay special attention to chemicals that may be toxic or flammable.

It is important to label all bottles and containers that contain any chemical with the type and concentration of chemical and to keep out of reach of children!

There are certain activities in a child care setting that, although very useful in the learning process, can sometimes be the source of illness. Examples would be sensory activities such as water tables, food products, play clothes and sandboxes. These activities require special attention and the proper cleaning and disinfecting of these should be discussed with your local public health inspector.

Preparing a Disinfecting Solution for Child Care Centres

Note: Food contact surfaces in kitchens must be disinfected as per Food Premise Regulation, RRO.562/90.

SURFACE TO BE DISINFECTED	SODIUM HYPOCHLORITE (BLEACH SOLUTION)	QUATERNARY AMMONIUM COMPOUNDS
Non-food surfaces: this includes chairs, tables, counter tops, toys, etc. This also includes diaper change area**	200 ppm (5.25% household bleach) 5mL bleach: 1 L water (1 tsp bleach: 4 cups water) Wipe area and let air dry. Use chlorine test strips.	400 ppm. Follow manufacturer’s instructions for use, contact time and dilution. Wipe area and let air dry. Use quaternary ammonium test strips.

* Other disinfectants may be used. Consult with the Health Unit.

** Some disinfectants will not need a cleaning step as detergents are built into product.

*** A separate sanitizing solution should be stored in the diapering area to be used only for the diapering area.

During outbreaks, the concentration of sanitizing solution may need to be increased.

Preparing a High Level Disinfection Solution

To be used for outbreaks, and for cleaning up blood spills and vomit/fecal accidents.

100 mL bleach: 1 L of water
(1 cup of bleach: 9 cups of water).
Contact time on surface is 10 minutes.

Child Care Cleaning & Disinfecting Schedule

Areas	After Each Use	Daily and when necessary	Weekly	Monthly	Other
Infant/Toddler Rooms					
Infant toys – clean & disinfect					✓ 2 times/week
Infant vinyl mats – clean & disinfect		✓			
Diaper change mat – disinfect	✓				
Diaper change table – clean & disinfect		✓			
Diaper pails – clean & disinfect		✓			
Mouthed toys – clean & disinfect	✓				
Bibs – clean & disinfect	✓				
High chair table tops – clean & disinfect	✓				
Plush toys (shared) – launder	✓				
Plush toys (individual) – launder			✓		
Cribs/cots – clean & disinfect			✓		
Soothers/pacifiers – clean & disinfect	✓				
Carpets – vacuum		✓			
Carpets – steam clean (infant room)				✓	

Play/Sleep Area					
Toys – clean			✓		
Shelving – clean			✓		
Linen/bedding – launder			✓		
Cots – clean			✓		
Carpets – vacuum		✓			
Carpets – steam clean					✓ 4 times/year
Floors beneath rugs			✓		
Floors – dry sweep & wet mop		✓			
Vinyl mats – clean			✓		
Garbage containers – empty		✓			
Garbage containers – clean			✓		
Dress-up clothes – launder			✓		
Water play table – clean & disinfect	✓				
Water play toys – clean & disinfect	✓				
Dry sensory food materials – discard			✓		
Dry sand table contents – discard				✓	
Dry play tables – clean & disinfect			✓		

Washrooms					
Toilets – clean & disinfect		✓			
Handwashing sinks – clean & disinfect		✓			
Floors – clean & disinfect		✓			
Potty chairs – clean & disinfect	✓				
Reusable towels – launder	✓				
Shared combs & brushes– clean & disinfect	✓				

Cleaning Up Blood Spills and Vomit/Fecal Accidents

A high level disinfectant should be used such as:

- 1 cup of bleach in 9 cups of water.
- Contact time on surface is 10 minutes.

Staff who clean up blood, vomit or feces should minimize the risk of infection to themselves and others by using the following procedure.

Procedure for Cleaning of Blood Spills/Vomit/Feces

- Appropriate personal protective equipment should be worn for cleaning up a spill. Disposable gloves must be worn during the cleaning and disinfecting procedures. If the possibility of splashing exists, the worker should wear protective eyewear and gown.
- If any broken glass or sharps are involved, they should be disposed with care into a sharps container.
- The spill area must be cleaned of obvious organic material before applying a disinfectant, as disinfectants are substantially inactivated by blood and other materials.
- Excess blood, vomit, feces and fluid should be absorbed and removed with disposable towels. Discard the towels in a plastic-lined waste receptacle.
- After cleaning, the affected area should be disinfected with a high level surface disinfectant. A concentration of household bleach at 5000 ppm (1:10 dilution) is effective. There are several high level disinfectants on the market. Review options with your public health inspector.
- Leave the disinfectant on the surface for the recommended contact time (e.g. 10 minutes for 1:10 mixture of bleach to water). When using bleach solutions, be sure the area is well ventilated and that it is not mixed with other cleaning compounds.
- The treated area should then be wiped with paper towels soaked in tap water. Allow the area to dry.
- The disposable towels, gloves and other disposable equipment should be discarded in a plastic-lined waste receptacle. Immediately tie and place with regular waste where daily trash removal occurs. Take care not to contaminate other surfaces during this process. Changing gloves may be needed.
- Care must be taken to avoid splashing or generating aerosols during the clean up.
- Hands must be thoroughly washed for 15 seconds with soap and warm running water after gloves are removed.

Management of Incidents of Possible Exposure to Blood and Body Fluids

Child care staff, through the course of daily activities, may find themselves exposed to the blood or body fluids of another individual. This could mean possible exposure to hepatitis B, hepatitis C or HIV. The risk associated with an exposure to blood-borne diseases is determined by the nature of the exposure, the immunization status of the exposed person and the risk factors associated with the source. For a blood or body fluid exposure to be significant, there needs to be a means of entry into the body of the child care staff member.

Significant Exposure

- Needlestick injury or any puncture, cut with a sharp object that was contaminated
- Mucous membrane exposure: splash to eyes, nose or mouth
- Contact with non-intact skin: healing wound < 3 days old, cut or open skin
- Prolonged exposure to large volumes of blood on intact skin

Non Significant Exposure

- Minor percutaneous, mucous membrane or skin exposure to non-infectious body fluid
- Intact skin exposure to a small quantity of blood (less than three drops) or fluid visibly contaminated with blood of short duration i.e. less than three minutes
- Bites unless there has clearly been transmission of blood to blood
- A superficial scratch which does not bleed.

The health unit serves as a source of information to members of the community related to possible exposure to blood-borne diseases through contact with the blood or body fluids of another person. **Anyone with a blood or body fluid exposure should seek medical attention to determine the risks of the exposure.**

First Aid Management for Blood-borne Exposures

The following actions are recommended:

1. Remove the contaminated clothes as appropriate.
2. Immediately allow the wound to bleed freely.
3. Wash the wound and injured area well with soap and water. Application of caustic agents such as bleach or injection of antiseptics or disinfectants into the wound is not recommended.
4. If the eyes, nose or mouth are involved, flush well with large amounts of water or saline (at least 1000 mLs).
5. Occupational exposures should be reported to your supervisor who should immediately implement agency policy.
6. Seek immediate medical assistance, preferably at a hospital emergency department.

8. Food Safety

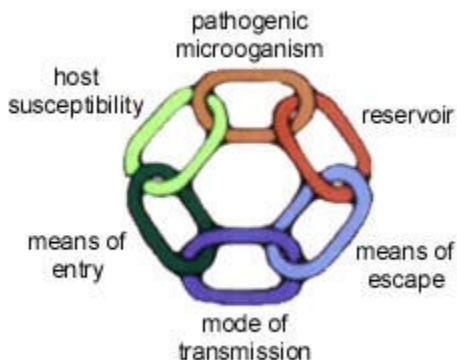
Food safety is critical because germs (bacteria, viruses etc.) grow very easily in food. The Simcoe Muskoka District Health Unit is responsible for inspecting all licensed child care centres' food preparation areas. This is to ensure that the facility and food handling are in compliance with the Ontario Food Premises Regulation R.R.O. 562/90. It is strongly recommended that all food handling staff at a children's day nursery attend a food handling course to obtain a food handling certificate.

An entire section has been devoted to food safety in the chapter Child Care and the Environment.

9. Education

The purpose of education is to increase understanding and create a change in behaviour. Child care staff (including part time and volunteer staff) need to understand the Infection Prevention & Control program, including why it is needed, how it is accomplished and what their role is regarding illness prevention.

Staff should also have a clear understanding of the communicable disease process including the chain of infection. For an infectious disease to occur, each link in the chain must be connected.



Regular in-service training for staff is required to ensure information pertaining to policies and procedures is well understood and any new information is relayed to the staff in a timely, effective manner.

ENVIRONMENTAL HAZARDS & CONTROLS

Arts & Crafts

Use	Avoid
Talc-free, premixed clay -make sure to wet mop surfaces after use	Powder clay: easily inhaled, may contain toxic substances like silica or asbestos, do not sand this product around children
Paper maché made from black and white newspaper & library or white paste	Instant paper maché may contain easily inhaled toxic substances like lead or asbestos
Liquid tempera paints or paints that an adult premixes	Powdered tempera paints or spray paints may contain toxic pigments that are dangerous when inhaled
Water-based markers	Permanent felt-tipped markers may contain toxic solvents
Water-based white glue or library paste	Instant glue, model glue or other solvent-based adhesives like epoxy
Dry grains, cereal products, cotton balls for sensory play	Water-based products, liquid gels that can support disease agent growth
Vegetable and plant dyes (such as onion skins, or tea) as well as food dyes.	Cold-water, fibre-reactive dyes or other chemical-based commercial dyes.

Adapted from: Canadian Child Care Federation, National Association for the Education of Young Children, Canadian Paediatric Society. Updated 2001..

When a parent or child care provider purchases art and craft supplies for children's use, they assume the products are safe. Many products labelled "non-toxic" are misleading because they refer to the immediate poisoning if ingested, inhaled or absorbed by the skin, but they do not reflect the dangers of long-term use.

- Products and materials should bear the CP (Certified Product) Seal and / or the AP (Approved Product) Seal of the (American) Art and Craft Materials Institute.
- Contact manufacturers to find out what substances are used in the product if they aren't clearly marked on the packaging.
- Avoid scents and any product in an aerosol can.
- Egg cartons, styrofoam meat trays and other containers used to store hazardous food items should not be used for crafts.
- Used toilet paper rolls are not recommended for crafts due to potential cross contamination.
- Styrofoam packing materials and balloons are not recommended for crafts because they can present a choking hazard.
- Area should have a utility sink for cleaning of paintbrushes and reusable craft supplies.
- Read the safety instructions on your sensory materials **every time** you use them.
- Keep materials in their original containers whenever possible. If you transfer materials, make sure you put labels on the new containers. Keep the original container nearby.
- Store all materials away from food and drink. Staff and children should not drink or eat when using sensory materials.
- Remind children to avoid touching their mouths, noses and eyes with hands, brushes, or other materials or tools.
- Ensure hand hygiene is performed before and after sensory play or crafts.
- Children should wash their hands in a handwashing sink, not in the craft utility sink, when finished.

Animal Control

It is good infection prevention and control practice to exclude all animals, reptiles or insects from a child care centre. Animals may visit but having an animal reside at the centre is not recommended due to allergy concerns; aggressive behaviour by the animal; extra care being needed; and if the animal becomes ill, it could spread infectious germs to the children.

Infections that Pets Carry and can Spread to Humans

Dogs and Cats:

- Campylobacter enteritis (bacteria that can cause diarrhea, abdominal pain and fever)
- Cat scratch disease (bacteria that can cause swollen lymph nodes, fever and headaches)
- Salmonellosis (bacteria that can cause diarrhea, vomiting, fever, chills and infants can lead to meningitis and sepsis)
- Yersiniosis (bacteria that can cause watery diarrhea, sometimes bloody, and abdominal cramps)
- Leptospirosis (bacteria that cause fever, muscle aches, stiff neck, nausea, sometimes a rash, and can affect the kidneys)
- Rabies (virus that is very serious and if untreated can cause death)
- Tapeworm (parasite that can cause extreme itching around the anus and diarrhea)
- Ringworm (fungus that can cause extreme itching)
- Giardiasis (parasite that can cause diarrhea, cramping, dehydration, tiredness)
- Cryptosporidiosis (parasite that can cause watery diarrhea, decreased appetite, cramping and with children, also vomiting)
- Cryptococcus (fungus that can cause headache, visual effects, meningitis, cough and chest pain)
- Toxocariasis (parasite that can cause fever, cough, wheezing, rash and even blindness)
- Toxoplasmosis (parasite that can cause fever, sore throat, tiredness but is more severe in pregnant women causing miscarriage, premature birth and blindness in newborns)
- Mange (mites that can cause intense itching and lesions)

Birds:

- Cryptococcus (fungus that can cause headache, visual effects, meningitis, cough and chest pain)
- Salmonellosis (bacterium that can cause diarrhea, vomiting, fever, chills and in infants can lead to meningitis and sepsis)
- Psittacosis (bacterium that can cause coughing, fever and headache when inhaled)

Reptiles (e.g. turtles, salamanders, newts):

- Salmonellosis (bacterium that can cause diarrhea, vomiting, fever, chills and in infants can lead to meningitis and sepsis)

Rodents (e.g. hamsters, guinea pigs, mice):

- Campylobacter enteritis (bacteria that can cause diarrhea, abdominal pain and fever)
- Ringworm (fungus that can cause extreme itching)
- Hantavirus (virus that can cause fever, chills, headache, abdominal pain, coughing and affect respiratory system)
- Plague (bacteria that can cause fever, chills, swollen lymph nodes, shock, encephalitis and can lead to death)

If an animal is present at the centre, it is recommended that:

- Parents be advised of the animal before they enroll their child due to allergies.
- Children only handle pets under adult supervision.
- Animals should be healthy and show no evidence of disease.
- Have documented up-to-date vaccinations for animals.
- Only adults clean and maintain the animal's living quarters.
- Children should not be allowed to kiss pets or put their hands to their mouths until hands are washed following animal contact.
- Children should be taught how to behave around an animal: not to provoke, pull the tail or remove the animal's food.
- Animal food must be kept out of children's reach and stored in rodent-proof containers.
- All feces must be removed from outdoor play areas.
- Animals should not be left unattended in outdoor play areas.
- Sandboxes should be covered and raked daily to prevent animals from using it as a litter box.
- All children under 5 years should avoid contact with reptiles, baby chicks, ducklings and amphibians such as frogs, salamanders and newts.

Children and staff must wash their hands after handling pets or pet items (including pet food).

Petting Zoos

While petting zoos are popular attractions, they can also be a source of infection and ill health for visitors. Zoonotic infections – those that can be passed from animals to humans – present a small, but real, risk. All animals, including all domestic, wild and exotic animals can be sources of zoonotic infections.

Children are very excited with the potential of seeing and interacting with exotic and domestic animals. Children under five should not come in contact with reptiles, amphibians (frogs and toads), birds, young ruminants (i.e., under six months old) or their immediate environment, because these animals shed more disease-causing agents

Immunocompromised persons and infants <12 months should avoid any animal contact.

Prior to going to the Zoo

Child care staff should:

- Consult with parents to determine if there are children in the school who have allergies/asthma, phobias, or are immunocompromised.
- Find out which animals are being displayed at the event, which may be touched, what hand hygiene facilities are available, and whether the hand hygiene facilities are accessible to small children or children with disabilities.
- Discuss supervision with accompanying caregivers, to ensure these recommendations are followed.
- Instruct children not to tease, hit or chase the animals, not to get too close to or get between an animal and its food or its young, not to make loud noises or sudden movements.
- Keep food and animals separate. Eat and drink before going to the zoo.

During time at the Zoo

Child care staff should:

- Supervise human-animal contact, particularly for children under 5. Risks can be reduced if young children are closely supervised or if adults carry them when in animal areas.
- Ensure children wash their hands – under adult supervision – after contact with animals, animal products, or animal environments, and before eating or drinking.
- Cover children's open wounds to avoid contamination of the wound with disease-causing agents.
- Wash and disinfect pacifiers, toys or other objects that have fallen to the ground, or have been in contact with animals, before giving them back to children.
- Objects such as clothing, shoes, and stroller wheels can become soiled and serve as a source of germs after leaving an animal area so should be cleaned and disinfected.
- Discourage children from: sucking fingers or objects, kissing the animals, touching own mouth with hands, eating any food, including food intended for animals, or wiping their hands on clothing when in animal areas.
- Be sure children avoid animal manure. E. coli and other dangerous organisms can be shed in animal feces and remain active for long periods of time. There have been well-documented E. coli outbreaks that have occurred from petting zoos.
- Immediately report any injuries from displayed animals to event staff.

After Visiting the Zoo

- Children who are injured by a display animal or begin to suffer from diarrhea, nausea, or vomiting within a month of contacting a display animal should be taken to their doctor as soon as possible. Tell the doctor about recent exposure to animals.
- Inform event staff and your local health unit if children have been bitten or scratched by displayed animals.

Special attention must be paid when bringing children to a petting zoo:

- Children should be reminded to walk calmly and quietly through animal areas.
- Active surveillance of the children that attended the zoo should be done for at least one month following the event to monitor for diarrhea, nausea or vomiting.

Sensory Table Guidelines

DO NOT USE SENSORY TABLES DURING AN OUTBREAK

Water Play

Water play tables can trap and grow germs. They must be drained, emptied, disinfected and air-dried after each use.

Choose a tub that is small in size, light in weight and easy to handle. The type of surface is important for easy cleaning. Choose tubs with smooth, non-absorbent and non-corrosive surfaces. Rounded corners and edges are better for easy cleaning.

Instructions for Safe Use:

Fill water play tub with fresh tap water before use. Do not add bleach or vinegar to the water. If water tables are used for the whole day, then the water should be changed for each group play.

1. Be sure all staff and children wash hands prior to and after using water play tub.
2. Empty tub after use and wash with detergent.
3. Rinse off the detergent with clean, clear water.
4. Disinfect thoroughly by using 200 ppm chlorine or 400 ppm quaternary ammonium. Let the sanitizer sit in the tub for at least 10 minutes or as per manufacturer's recommendation. Empty.
5. Allow to air dry.
6. Sanitize all water toys daily. Immediately remove from use any toys that have been in contact with a child's mouth.

Sand Play

Play sand used within these tubs must be free of disease-causing or injury-producing agents such as parasitic eggs, insects, feces or foreign objects.

Pre-packaged sterilized sand that can be purchased at most hardware stores is a safe product that should be used in play sand tubs. Play sand should be replaced monthly.

It is important to note that once play sand becomes moist or wet it may be capable of sustaining microbiological growth and as a precaution it is recommended that the wet or moist sand be replaced.

Food Play

Many food products are used in sensory activities such as dry pasta, rice, homemade play-dough etc. It is essential that food products are stored appropriately in puncture-proof containers.

If dried food products become wet, they must be immediately thrown out as food provides an excellent breeding ground for infectious disease agents once moist.

Homemade play-dough should be used once then discarded. It is recommended that children are given small amounts of food products to play with at any one time then the products are discarded after use.

Health Risks and Disposal of Used Needles & Condoms

People are sometimes afraid when they find a used needle or condom in a park, street, or playground. However, if a used needle or condom is handled properly, the associated health risks are reduced. It is rare for someone to be injured by a used needle, but when it occurs the diseases we worry about most are hepatitis B, hepatitis C and HIV. The virus that causes HIV does not live long outside the body so a used needle will rarely carry the HIV virus.

- It is important to handle any used needles or condoms carefully.
- Teach children to never touch condoms or needles they find on the ground.
- Tell children to tell an adult right away if they see or have touched these objects.
- To pick up a used needle or condom, wear impermeable gloves that cannot be punctured by a needle, or use tongs.
- Hold the needle tip away from you; be careful not to prick yourself.
- Put the object in a safe container, using a plastic bag for a condom and a hard plastic container that cannot be punctured, for a needle. Place needle tip down into container. The container should have a lid that will not come off easily.
- When a needle is found, the container should be brought to the needle and not the needle brought to the container. Do not hold the container while putting the needle into it.
- Put the plastic bag into a garbage can that children cannot access. Call, or bring the container with the needle to the health unit. Do not put them into a recycling bin.
- Thoroughly wash hands for 15 seconds with soap and warm running water after gloves are removed.

Protocol for Needlestick Injury

The risk of getting a disease is low, but each situation needs to be assessed thoroughly. The staff member may be advised to have blood tests or get immunized, depending on the situation.

- If a needle does break the skin, let the cut bleed freely.
- Wash the area well with soap and water.
- Apply an antiseptic like rubbing alcohol or hydrogen peroxide.
- Visit a walk-in clinic or emergency department immediately.

Managing Human Bites in Your Centre

If any child bites another person and breaks the skin causing bleeding, the child care supervisor can contact the Simcoe Muskoka District Health Unit for information and should seek medical attention for both individuals involved.

Bites are common in the day care setting but severe bites are unusual and rarely lead to bacterial infections. Most bites are harmless and don't break the skin. Only a bite that breaks the skin can transmit infection. Toddlers (age 13 to 24 months) are bitten most frequently.

Procedure for Cleaning Up Blood Spills

1. Refer to page 2-20 for the Procedure for Cleaning of Blood Spills/Vomit/Feces