



CLEANING GUIDELINES TO ASSIST SCHOOLS AND EARLY CHILDHOOD

CENTRES TO REDUCE THE SPREAD OF COMMUNICABLE DISEASES

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Introduction

Reducing the spread of communicable diseases requires attention to both personal hygiene and environmental cleaning. Good personal hygiene is essential when any illness occurs. Key elements include frequent and thorough hand washing and drying, covering broken skin with dressings, covering coughs and sneezes, the correct disposal of tissues and isolating those who become sick at a centre. When someone is sick it is important they stay away from other people to prevent the spread of disease. Schools and Early Childhood Centres (ECCs) should have a sickness policy for students and staff.

This guideline will assist schools and ECCs to reduce the spread of communicable diseases through adequate cleaning.

The Spread of Disease

In schools and ECCs the main concerns are respiratory viruses and gastro enteritis associated with diarrhoea and vomiting e.g. Campylobacter, Norovirus. Respiratory viruses are passed on by droplets when people cough and sneeze. These viruses can survive for 48 hours on surfaces and may be picked up on hands and transferred to the face and mouth. Gastro enteric diseases can be spread via the faecal-oral route i.e. in contaminated food or water, and via aerosol spread, following projectile vomiting.

Public Health South recommends that schools and ECCs contact their Public Health Nurse or a Health Protection Officer if 20% of children and staff are absent from school or an ECC due to similar illnesses. Public Health Nurses and Health Protection Officers will be able to provide further advice and can assist schools and ECCs if an outbreak is identified.

Table 1: Summary of Protection Measures against Communicable Disease in Schools and Early Childhood Centres

<u>Protection measure</u>	<u>Where applicable</u>
Hand hygiene, cough etiquette, ventilation	Everyone, all the time
Policies for sick people, both staff and students	Every organisation, all the time
Social distancing – stay 1 metre away from sick people	Everyone, wherever practical
Environmental cleaning	Every organisation, risk based cleaning schedule
Personal protective equipment (PPE)	Staff cleaning up vomit / diarrhoea

Cleaning Regimes

Schools and ECCs should have in place a routine schedule for general cleaning describing the areas to be cleaned and the frequency and method of cleaning (see appendix 1). In addition schools and ECCs should have processes in place to carry out enhanced cleaning if an incident occurs at a school or centre or when there is increased numbers of ill staff and students.

Routine Cleaning

Routine cleaning should occur on a daily basis and involves cleaning both high risk areas such as toilets and general areas such as classrooms. Cleaning staff need to know what daily cleaning to carry out, what products and equipment to use, how often to clean and what areas to clean.

Step 1: Identify areas to clean including high risk areas

Schools and ECCs should identify all areas to clean including high risk areas such as toilets, nappy changing areas, toys/play equipment, areas where any food is prepared, and areas where a sick person has been i.e. sick bay. High risk areas also include anywhere that is visibly contaminated by vomit or faecal matter. High usage equipment within any risk areas should be identified as requiring frequent cleaning e.g. door handles, tap handles, surfaces and toys.

Step 2: How to clean

High risk areas must be cleaned last after routinely cleaned areas to prevent cross contamination from occurring. Surfaces must be cleaned with hot water and detergent first regardless of whether there is any visible matter present. A detergent removes dirt but will not remove any micro-organisms. Then clean with a disinfectant such as bleach.

Disinfectants are designed to kill those micro-organisms responsible for causing respiratory and gastro enteric illnesses. They work when applied to surfaces that have previously been cleaned. Some commercial cleaning agents have activity against micro-organisms, but bleach is cheap and effective. Suitable bleaches are Janola, White Magic or Domestos. Person protective equipment (PPE) should be used when cleaning.

Step 3: Check cleaning has occurred

Ensure that staff are trained appropriately in regards to the cleaning schedule so they know what they have to do and when in addition to knowing how to use PPE correctly. Display a copy of the cleaning schedule on the wall of the cleaning cupboard to which staff can refer.

Ensure the cleaning schedule is reviewed regularly and checks are made to ensure that all cleaning is being done properly.

Personal Protective Equipment (PPE)

PPE can provide additional protection against exposure to, and reduce the spread of communicable disease when used correctly. PPE includes masks, gloves, gowns and aprons. Varying levels and types of PPE are required depending on the situation, the level of exposure and the risk of transmission. Education and training is required to ensure the PPE is used and disposed of correctly, to maintain the equipment's effectiveness and ensure protection for the person using it. The correct way to put on and take off PPE is described in Appendix two on page 13.

In schools and ECCs, PPE will be most useful for cleaning up vomit or diarrhoea. Schools and ECCs should consider how often they have managed vomiting and diarrhoea events in the last 2 years as a guide to volumes of PPE required. Consider opportunities to bulk purchase with other centres and schools. Staff cleaning up blood spills must wear gloves and clean the affected surface with a bleach solution.

Table 2: PPE for cleaning up vomit and diarrhoea in Schools and Early Childhood Centres

See appendix two for instructions on the correct usage of PPE.

PPE (disposable)	Packaging	Notes
Particulate Respirator Masks - N 95 or P 2	1 box of 10	Must be fitted properly
Plastic aprons	Packet of 25	
Non-sterile impermeable gloves	Boxes of 100	Beware of latex allergy

In the event of a pandemic influenza more detailed information about the appropriate types of PPE in schools and ECCs will be made available.

General cleaning tips

- When carrying out general cleaning reusable rubber gloves may be used, but they should be washed after use. Reusable gloves should be cleaned by washing them with soap and water while they are worn. Once removed soak in 0.1% bleach solution for 20 minutes and allow to air dry inside and out.
- If using disposable gloves for cleaning then discard after use.
- Wear appropriate protective equipment when carrying out general cleaning i.e. gloves and an apron when cleaning toilets.
- When cleaning avoid touching the face with gloved or unwashed hands.
- Wash hands with liquid soap and hot water for at least 20 seconds and dry them thoroughly for a further 20 seconds on disposable paper towels immediately after the gloves are removed.
- Alcohol gels (70% or more alcohol) can be used on hands to sanitise following washing. Hands must be visibly clean (no build up) for the gels to be effective.
- Ensure surfaces are cleaned with hot water and detergent followed by a disinfectant such as bleach.

How to disinfect

The easiest and most effective way of disinfecting is with bleach. Supermarket bleaches are sold in different strengths, usually 2–5% sodium hypochlorite solution. The strength is written on the label. The recommended concentration of bleach disinfectant is 1000 ppm (0.1%) hypochlorite. To achieve this, Table 3 provides a guide to diluting supermarket bleach of differing concentrations.

Table 3: Recipes to achieve a 0.1% Bleach Solution

Original strength of Bleach (% sodium hypochlorite)	Bleach (millilitres)	Water (millilitres)	Total (millilitres)	Parts per million (ppm)
1%	1000	9000	10,000	1000
2%	500	9500	10,000	1000
3%	333	9677	10,000	1000
4%	250	9750	10,000	1000
5%	200	9800	10,000	1000

- Make the bleach solution up fresh each day in a ventilated room and discard any leftovers after 24 hours.
- Keep diluted bleach covered, protected from sunlight and heat, in a dark container (if possible) and keep out of reach of children. A spray bottle is an effective way to dispense the bleach solution.
- Spray or wipe the bleach solution onto hard surfaces that have previously been cleaned with hot soapy water and leave on for at least 10 minutes.
- If items are being placed into a bleach solution then it is recommended that the item is soaked for 30 minutes.
- Once an item or surface is disinfected allow it to air dry.
- Some surfaces cannot be cleaned with bleach solutions (e.g., keyboards, telephones). For these surfaces alcohol wipes are recommended.
- Disposable cloths should be used for cleaning high risk areas and disposed of after use. If reusable cloths are used soak in bleach solution before drying. Separate coloured cloths should be used for cleaning higher risk areas i.e. toilets/nappy changing areas, and their use should be restricted to these areas only.
- Reusable mops must be soaked overnight in 0.1% bleach solution.

- When there is an increase in respiratory illnesses at a school or ECC, carpets or soft furnishings can be cleaned with domestic household carpet cleaning and fabric cleaning products.

Vomiting or diarrhoeal incidents

- **These incidents should always be treated as potentially infectious.** Staff must wear disposable gloves and a plastic disposable apron (as a minimum). It is recommended that schools and ECCs have a small supply of particulate respirator masks (N95) for use when cleaning vomit which is suspected as being caused by a gastro enteric illness. A particulate respirator mask (N95) should be worn if the vomit is cleaned up within an hour of the incident occurring.
- When cleaning up after an incident, wear non-sterile impermeable disposable gloves.
- The immediate area should be cleared of children and adults and blocked off. Involve as few staff as possible in the clean up operation.
- If vomiting has occurred spray the area immediately with an air neutralising aerosol spray. This neutralises the odour and may assist by causing aerosols containing viruses to drop to the floor where they can be disinfected.
- If possible, open windows and doors to direct the airflow to the outside of the building.
- If possible, remove soiled furniture to a safe and isolated place for thorough cleaning.
- Vomit and/or diarrhoea should be removed by:
 - Covering the debris with an absorbent material (i.e. absorbent granules, sand) which are then disposed of and/or:
 - Using paper towels to soak up excess liquid then using disposable cloths (see the following section for disposal of contaminated material)
 - Using a wet vacuum (if available) containing a detergent and disinfectant solution. A mask should be worn when vacuuming a contaminated area.
- Following the removal of matter wash the immediate area with hot water and detergent using disposable cloths.
- Apply disinfectant as per table 3 to the contaminated area and its surrounds to at least 3 metres in all directions.
- Clean and disinfect non-disposable equipment after use.
- Restrict access to the contaminated area for at least 30 minutes to allow it to air dry. If necessary cordon off.
- If carpet has been contaminated by vomit or faecal matter **do not dry vacuum** once the material has been removed, as some organisms/viruses can remain in the carpet and become airborne when vacuuming occurs. Carpets should be steam cleaned using a steam cleaner which reaches a minimum of 60 degrees centigrade, unless the floor covering is heat sensitive and fabric is bonded to the backing material with glue. If this is the case, clean with detergent, and thoroughly air the area until dry before allowing people back into the area. Steam cleaning can be carried out by a specialist carpet cleaning company. A mask should be worn when cleaning contaminated carpet.

Disposal of Contaminated Materials, PPE & Body Fluids

- Paper towels or absorbent granules used to soak up excess liquid and any solid matter must be placed directly into a plastic bag that is then sealed or tied. This bag must then be placed into a second bag and sealed to reduce the risk of it leaking and then placed in the general rubbish bin.
- Place all contaminated cleaning cloths, gloves, aprons and any masks into a plastic bag, seal or tie and then place in the general rubbish bin.
- Depending on where the incident occurred it may be practical to dispose of any matter by directly flushing it down the toilet.
- Dispose of any used tissues immediately after use. If a toilet is convenient then used tissues can be flushed down the toilet. If there is no convenient toilet and it is likely that tissues will

- be doubled handled then they should be placed into a lined rubbish bin that either has no lid or has a pedal-operated lid.
- Bin liners should be plastic to avoid any leakage. To avoid double handling of any rubbish, the complete rubbish bag should be changed on a daily basis rather than emptying out the contents. This is particularly important when there is an increased incidence of illness within the school or ECC.

Enhanced Cleaning

Enhanced cleaning means more frequent cleaning and should occur when there is an increased incidence of illness at a school or ECC e.g. an outbreak of gastroenteritis. If enhanced cleaning is required ensure that cleaning staff understand why there is a need for enhanced cleaning, what products and equipment to use, how often to clean and what areas to clean.

Compliance with Health and Safety in Employment Act 1992

The Health and Safety in Employment Act 1992 requires the following measures to be taken:

“Section 6: All practicable steps

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to:

- provide and maintain for employees a safe working environment
- provide and maintain for employees while they are at work facilities for their safety and health ...

Section 28: Employees may refuse to perform work likely to cause serious harm

An employee may refuse to do work if the employee believes that the work that the employee is required to perform is likely to cause serious harm to him or her”

Employers must take all practicable steps to reduce the risk and protect employees from exposure to communicable disease. Employers need to actively plan to cover their risks to themselves, their workers and the public. These cleaning guidelines should assist employers to comply with the Act.

Useful websites for further information

Getting ready for a Flu Pandemic call 0800 286 358 or see the Ministry of Health website – www.moh.govt.nz/pandemicinfluenza. Alternatively visit the Ministry of Labour’s website - <http://www.dol.govt.nz/initiatives/workplace/pandemic/index.asp>

For information relating to food borne illness see the Ministry of Health website - <http://www.moh.govt.nz/foodborne.html> or the New Zealand Food Safety Authority website - <http://www.nzfsa.govt.nz/consumers/food-safety-topics/foodborne-illnesses/index.htm>

For information relating to a range of illness and diseases see the Centers for Disease Control and Prevention website - <http://www.cdc.gov/DiseasesConditions/>

Additional Information for Early Childhood Centres

Nappy Changing Areas

It is important for ECCs to develop and follow a safe practice for changing nappies and to have facilities that make safe practice easy.

- Hands must be washed both before and after changing the nappy with liquid soap and hot water for at least 20 seconds and dried thoroughly for 20 seconds on disposable paper towels.
- Gloves are not necessary for nappy changing, but may be preferred for dirty nappies and during increased periods of illness. Hands must be washed even after wearing gloves.
- Gloves are recommended if the carer has a cut or wound on their hands. Cuts should be covered with a waterproof dressing.
- When gloves are worn they must be disposed of immediately and not washed or reused.
- Nappy changing areas/pads must be cleaned and disinfected after every nappy change by wiping down with hot soapy water or alcohol wipes. Surfaces should be easy to clean and in a condition where moisture is not able to be absorbed.
- Alcohol wipes should be disposed of after use and cloths should be placed into the laundry.
- When the pad has been soiled, it must be washed down with soapy water and then disinfected with a 0.1% bleach solution and left to stand for at least two minutes to dry.
- The child's hands should be washed with soap and hot water for at least 20 seconds and dried thoroughly for 20 seconds on disposable paper towels after nappy changing.
- Nappy liners are recommended for easy disposal of solids in the toilet (Note: that some wipes and nappy liners cannot be flushed down the toilet).
- Dirty nappies should be placed in containers with tight fitting lids. If clothing is soiled it should be removed. It is preferable that rinsing and laundering of nappies or soiled clothing is not done at the centre. Soiled articles should be double bagged until collected by a parent and should be kept in a location that is inaccessible to children. If soiled items are to be laundered then they should be pre-soaked in a strong peroxide-bleach solution e.g. napsan, and then hot washed.
- At the end of a session of nappy changing the change pad, changing area, taps, toilets and potties must be wiped with a bleach solution as per table 3. Once applied the solution should be left on to dry for at least 10 minutes.

Toys and Play Equipment

Toys and play equipment need to be included in the cleaning schedule and cleaned on a regular basis. Following is a list of suggestions to assist ECCs with cleaning of toys and equipment.

- Play dough equipment and toys that are placed in the mouth, chewed or sucked should be washed daily.
- Dress-up clothes should be washed in hot water once a week and when they are soiled.
- Hard toys, some waterproof soft toys and plastic books should be washed in hot water and detergent, and then rinsed in hot water. A dishwasher may be used, but this may damage plastics as the dishwasher powder contains bleach which may affect the colour of some toys. Other toys that are handled frequently, such as books, need to be wiped clean regularly and when soiled they may need to be discarded.
- Some soft absorbent toys (teddy bears, fabric books) can be machine washed in hot or warm water. Some fillings, particularly those used in home-made toys, are not washable. These toys must be completely dry before they are stored or used again.
- Large waterproof toys (ride-on toys) should be washed with a clean cloth using warm water and detergent.

- Comfort toys that children sleep with must not be shared with other children unless they are washed between uses. ECCs should encourage children to have their own comfort toy which is not shared and is kept with their bedding.
- Toys must not be used in the bathroom, toilet or kitchen for safety and hygiene reasons.
- Playdough should not be used for more than one day. Salt used in the dough mixture will not stop bacteria growing if it becomes dirty. If it is made several days in advance it must be kept in the fridge, taking out only what is needed each day. This means that the dough is clean and safe for playing.

Appendix One: Designing a cleaning schedule




Goal	Why?
<p>Schools and ECCs must ensure their facilities including high risk areas (toilets, nappy changing areas), toys/play equipment, areas where any food is prepared, areas where a sick person has been i.e. sick bay, and equipment used to clean (e.g. cleaning cloths) are cleaned and disinfected on a regular basis.</p>	<p>Cleaning and disinfecting is important:</p> <ul style="list-style-type: none"> ○ To prevent illness ○ To discourage pests that may carry harmful bacteria and viruses.
How to do this	
<p>Walk through your school or centre and make a list of everything that needs cleaning.</p>	<p>You may find it helpful to go through the following examples (this is not an exhaustive list):</p> <p>High risk areas</p> <ul style="list-style-type: none"> ▪ Toilets/nappy changing areas ▪ Hand basins ▪ Food surfaces, preparation areas and equipment used for food preparation ▪ Sick bay ▪ Anywhere that is visibly contaminated by vomit or faecal matter <p>Frequently touched items</p> <ul style="list-style-type: none"> ▪ Rubbish bins, broom and mop handles ▪ Door handles, taps, switches and controls ▪ Telephones, computer keyboards <p>Other cleaning</p> <ul style="list-style-type: none"> ▪ Floors, walls ▪ Rubbish bins, waste areas, drains ▪ Toys, play equipment, gymnasium, library, hall, administration areas, staff areas
<p>For each item, or group of items, write down what should be done to clean the items.</p> <p>Contact a chemical company for advice on the type of products to be used in your facility.</p> <p>Collect the MSDS (Material Safety Data Sheets) from the company supplying the chemicals. These will tell you how to use them and the things to avoid, for example, mixing acid and chlorine based chemicals.</p> <p>Request the company to undertake a training session for your staff in the correct, safe use of the chemicals. These may be available free of charge.</p>	<p>Include details on:</p> <ul style="list-style-type: none"> ▪ How to clean the item(s) ▪ What chemicals to use ▪ What equipment to use ▪ How often to clean the item(s)
<p>Display a copy of the cleaning schedule on the wall of the facility to which staff can refer.</p> <p>Review your schedule regularly and check that all cleaning is being done properly.</p>	<p>Train staff on the cleaning schedule, so they know what they have to do, and when. Supervise cleaning.</p>

Appendix Two: Using Personal Protective Equipment (PPE)

Note: Type of PPE used will vary based on the level of precautions required.



Donning PPE

Put on PPE in the following order.

<p>1. <u>Apron</u></p> <ul style="list-style-type: none">• Fully cover torso from neck to knees, and wrap around the back.• Fasten in back at neck and waist.	
<p>2. <u>Mask</u></p> <ul style="list-style-type: none">• Loop mask over ears.• Fit flexible metal band to nose bridge.• Fit snug to face and below chin. <p>Note: The coloured side is worn outward.</p>	
<p>3. <u>Gloves</u></p> <ul style="list-style-type: none">• Extend to cover wrist.	

Removing PPE

Remove PPE in the following order. Place in clear plastic bag, seal and then into another plastic bag and seal.

<p>1. <u>Gloves</u></p> <p>Outside of gloves are contaminated.</p> <ul style="list-style-type: none">• Grasp outside of glove with opposite gloved hand; peel off.• Hold removed glove in gloved hand.• Slide fingers of un-gloved hand under remaining glove at wrist.• Wash and dry hands thoroughly.	
<p>2. <u>Apron</u></p> <p>Apron front is contaminated.</p> <ul style="list-style-type: none">• Rip neck and waist ties.• Apron will turn inside out.• Hold removed apron away from body, roll into a bundle and discard into waste or linen receptacle.• Wash and dry hands thoroughly.	
<p>3. <u>Mask</u></p> <p>Front of mask is contaminated.</p> <ul style="list-style-type: none">• Grasp loops and remove over ears carefully.• Place in plastic bag.• Wash and dry hands thoroughly.	