

CLEANING AND DISINFECTING GUIDELINES FOR EARLY CHILDHOOD EDUCATION CENTRES



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CLEANING AND DISINFECTING GUIDELINES FOR EARLY CHILDHOOD EDUCATION CENTRES

Keeping the childcare environment clean and orderly is very important for health, safety, and the emotional well-being of staff, children and their families.

The spread of gastroenteritis and other such illnesses in childcare settings is facilitated by:

- children of childcare age are in the process of developing their immune systems and are therefore more susceptible to illnesses
- unhygienic behaviours (such as mouthing objects and poor hand-to-mouth habits)
- undeveloped personal hygiene habits (young children tend not to wash their hands without supervision)
- crowding of many children together in a closed environment
- microbial contamination of the childcare environment

One of the most important steps in reducing the number of germs (micro-organisms such as bacteria, viruses and protozoa) in a childcare setting, and therefore the spread of disease, is the thorough cleaning of surfaces that could possibly pose a risk to children or staff. Surfaces considered most likely to be contaminated are those with which children are most likely to have close contact. These include toys that children put in their mouths, cot rails, food utensils, cups and plates, and surfaces likely to become very contaminated with germs, such as nappy-changing areas and toilets.

CLEANING VERSUS SANITISING VERSUS DISINFECTION

Routine **cleaning** with detergent and warm water is the most useful and cost effective method for removing germs from many surfaces in the childcare setting. It also removes dirt and grease from surfaces. Good mechanical cleaning, i.e. the friction created through a vigorous cleaning motion, physically reduces the numbers of germs from the surface (just as hand washing reduces the numbers of germs from the hands) but does not kill those germs that may remain on the surface.

Cleaning is an important first step in removing germs from the environment. If surfaces are not "clean", accumulated dirt and organic matter can protect germs and may cause further sanitising or disinfection processes to be ineffective. Germs also cannot multiply on clean, dry surfaces.

There are a number of items and surfaces in a childcare setting that should receive an additional step, either **sanitising** or **disinfection**, after cleaning.

Sanitising uses a chemical that kills or inactivates certain germs so that their numbers are reduced to such a level that the spread of disease is unlikely. A **disinfection** process uses a chemical that kill or inactivate virtually all germs. Sanitising and disinfecting are often used to describe the same 'cleaning' process, i.e. to remove the germs to a level that the spread of disease from one person to another is unlikely.

Sanitising/disinfection usually requires soaking or drenching the item or surface for several minutes to give the chemical time to destroy any remaining germs.

WHAT DISINFECTANT/SANITISER SHOULD WE USE?

There are a variety of commercial disinfectants and sanitisers available for this purpose. In choosing a disinfectant/sanitiser, be aware that many products are not effective against some germs, particularly protozoal cysts (*Giardia* and *Cryptosporidium*) and viruses. Management must ensure that the chosen product is effective against a wide range of germs and scientific evidence should be obtained from the supplier/manufacturer to show that the product is 'fit for purpose'.

Hypochlorite-based Products

Public Health recommends the use of disinfectants/sanitisers containing **hypochlorite** for childcare settings (i.e. bleach solutions). Hypochlorite has long been recognised as having outstanding disinfection properties, being effective against most common disease-causing organisms. It is widely used in homes, schools, hospitals, swimming pools and in drinking water supplies.

Hypochlorite is available under many brand names including:

- "No Frills Bleach", "Janola", "Exit Mould", "Hypersol", "Domestos"

Bleach is cheap and easy to get. A 0.1% hypochlorite solution is usually recommended; the solution of bleach and water is easy to mix and safe if handled properly. It can be used on most surfaces, including most bathroom and food contact surfaces, but be aware that some surfaces may become discoloured or damaged by the product and alternative disinfection products may have to be used.

Information on making up appropriate solutions of bleach is found in Appendix 1.

Alternative Disinfectants

Alternative disinfectants for 'sensitive' surfaces that may be damaged by bleach should be selected carefully. The choice of disinfectant to be used depends on the particular situation, for example, some surfaces such as keyboards and telephones cannot be disinfected using aqueous disinfectant solutions so alcohol wipes (containing >60% ethanol) can be used.

Some disinfectants have a wide spectrum, i.e. kill many different types of micro-organisms while others only kill a small range of disease-causing organisms. Some products may be sold as 'viricides', (capable of killing viruses) but they may only be effective against certain groups of enveloped viruses and will not kill non-enveloped viruses such as *Norovirus* and *Rotavirus*. Request product information sheets from the manufacturer/supplier that details which micro-organisms the disinfectant is effective against and where it can and cannot be used.

'Green' or 'Natural' Cleaning Products

There has been an increased interest in using 'green' or 'eco' cleaning products in childcare settings, schools and homes. The interest has arisen as a result of increased reports of allergies, sensitivities and illness in children and adults associated with chemicals in the environment as well as the impact of chemicals on the environment.

Many of these products are suitable only for **cleaning** surfaces, i.e. removing accumulated grease and grime. Most will not disinfect surfaces - the mechanical action of cleaning the surface will physically remove most of the germs present on the surface but will not kill those left behind. This may be suitable for many 'low-risk' surfaces in a childcare centre setting, e.g. floors, walls, table tops, etc. but not 'high-risk' surfaces such as food preparation surfaces and toilet and nappy change areas. **In these areas, Public Health recommends the use of disinfectants/sanitiser containing hypochlorite (bleach solution).**

Cleaners that are being marketed as 'eco-friendly' or 'green' are difficult to assess. There is no requirement for manufacturers to list all the ingredients on the label although some do. Do not assume that environmental and health claims are true. There are no standard definitions for 'natural', 'non-toxic' or 'environmentally-friendly' and the terms may not mean much, for example, 'natural' does not mean the product is less-toxic or non-irritating. Many of the claims made by manufacturers cannot be independently verified.

Thorough research into these products is required to find out what is actually in each product and if they really do what they are claimed to do. An example of this is a hand sanitiser being promoted as 'eco-friendly'. Product marketing promoted the product as containing aloe vera and other botanical oils. Research into the product found that it contained 45% alcohol, an aspect not advertised. Scientific research indicates that you need at least 70% alcohol in a hand sanitiser for it to be effective against the more resistant germs. This product therefore was likely to be no more effective as a hand sanitiser than the much cheaper method of handwashing with soap and warm water.

'Green' products touted as disinfectants should be assessed carefully to ensure that they are 'fit for purpose' and have been scientifically proven to kill a wide-range of micro-organisms.

The use of home-remedy or natural cleaners is also gaining interest but again there are questions over their effectiveness and appropriateness. Research findings into some of these products have found:

- *Vinegar* (an acid) has disinfecting properties against some bacteria but not all. It has poor soil removal abilities and may congeal protein on the surface.
- *Eucalyptus and Tea Tree Oils* are beneficial to health in small amounts (2-5 drops) but are poisonous in concentrated form and likely to be toxic to aquatic life in large amounts. Eucalyptus oil is an effective solvent but too harsh for cleaning general soiling from surfaces, especially plastic surfaces.
- *Natural Citrus Bases* (e.g. orange oils) are quite toxic in their pure form. Orange oil has been classified by the Environmental Risk Management Authority in New Zealand as acutely toxic (oral), a skin irritant and a contact sensitiser. It is also toxic to aquatic life.
- Neither vinegar nor essential oils are registered as disinfectants which mean there is no verifiable or accurate information about dosage and contact time to achieve disinfection, nor which type of germs they are effective against.
- *Borax* (strongly alkaline) has very poor disinfection qualities but effective soil removal ability. It is poisonous and damages soil in large amounts.
- *Baking soda* (alkaline) is a good scourer and deodoriser.
- Mixing vinegar and baking soda together neutralises the properties of the separate products.

Steam Cleaning

There are many different types and models of steam mops. They are designed to disinfect and kill germs through heat, rather than the use of chemicals. Steam mops use steam to clean floors, carpets and soft furnishings by heating water contained in a tank to temperatures of around 120°C. The steam is blasted out through a jet or jets, activating a microfibre pad that the dirt adheres to.

It is important with any steam mop that the steam achieves temperatures of at least 60°C within carpets or on hard surfaces to be effective. Seek information and assurance from the manufacturer that their appliance meets these temperature requirements.

Consideration should be given to the following issues:

- Identify where in the centre the mop is to be used and the risks associated with those areas, i.e. toilets/bathrooms and kitchen facilities.
- How often and when the microfibre pad should be changed.
- The laundering of the microfibre pads. Manufacturer's instructions should be followed regarding the cleaning and replacement of the pads. Note: General laundering is likely to only remove gross solid matter that has built up and will not sanitise the mop pad. It is recommended that microfibre pads are disposed of and replaced with new pads if the mop is used to clean during an illness outbreak.
- Manufacturer's instructions on the use of the mop should be incorporated into staff health and safety training. Cleaning procedures and schedules should be updated to include general and enhanced cleaning guidance for steam mop use.

Disinfectants for Outbreak Situations

In a disease outbreak affecting a childcare centre, Public Health staff may recommend the use of a particular disinfectant which may be different than that used in the day-to-day cleaning of the centre. The recommended disinfectant may be more effective in killing the germ causing the outbreak than the centre's usual product.

Public Health staff may also prescribe an enhanced cleaning regime where surfaces, equipment and childcare items are cleaned and disinfected/sanitised more frequently.

HOW DO WE DISINFECT/SANITISE?

It is very important that the manufacturer's instructions are followed when using a disinfectant or sanitiser to avoid inappropriate exposures to the chemical, to ensure that the disinfection process is effective and to protect the integrity of the surfaces being disinfected.

Surfaces requiring disinfection/sanitising **must** be thoroughly cleaned first before applying the disinfectant or sanitiser as the chemicals are inactivated by the presence of organic material. Cleaning requires brushing/brooming/scraping to remove loose dirt and debris, followed by cleaning with detergent and warm/hot water to remove remaining dirt and grease. Scrubbing will assist in the cleaning process. Surfaces should be rinsed with water after cleaning and allowed to air-dry or dried with clean cloths.

After cleaning, apply the disinfectant/sanitiser according to the manufacturer's instructions. Generally the surface should be liberally soaked/covered with disinfectant/sanitiser and then left in contact with the product for a certain period of time, e.g. a contact time of 30 minutes is recommended when using a bleach solution.

After the contact time has passed, the solution can be removed using clean absorbent materials (cloths, paper towels) or rinsed off (refer to manufacturer's instructions) and allowed to dry (air-dry or manually dried). If a bleach solution is used, rinsing is not necessary as the chlorine in the solution evaporates as the surface dries.

These steps are summarised in Table 1 below:

Table 1: How to clean and sanitise

1	Pre-clean	Remove dirt and debris by sweeping, scraping, wiping or rinsing with water.
2	Wash	Use warm water and detergent. Soak if necessary.
3	Rinse	Rinse off detergent and any remaining dirt.
4	Sanitise/disinfect	Sanitise/disinfect to reduce/eliminate micro-organisms to safe levels.
5	Final rinse	Rinse off sanitiser (if necessary).
6	Dry	Air-dry or use a single-use towel/cloth (used for this purpose only) or disposable paper towels.

Important factors in achieving a 'clean' surface are:

- The condition of the surface being cleaned
 - Is the surface easy to clean?
- The effectiveness of the cleaning action and equipment (i.e. 'elbow-grease')
- The purity/effectiveness of the cleaning and disinfection/sanitising solutions
 - Are they appropriate for use?
 - Are they within-in their use-by-dates?
 - Have they been mixed and stored correctly?
- The free-rinsing ability of the solutions
 - Can the solutions be rinsed or wiped off, leaving no residues?
- The hygienic state of the dispensers and cleaning equipment
 - Lids on pour/pump bottles and dispensers must be designed to discourage fingers coming into contact with the outlet
 - Cleaning equipment and cloths must be clean

SAFETY TIPS

- **ALWAYS** follow the manufacturer's instructions on the product
- **NEVER** mix cleaning chemicals together as they may react vigorously and produce toxic gases
- **ALWAYS** wear gloves when handling cleaning materials, particularly undiluted chemicals
- **ALWAYS** use chemicals in a well ventilated area
- **NEVER** store chemicals/cleaning solutions in unmarked containers, especially in containers commonly used for food, e.g. plastic milk bottles
- **ALWAYS** label, name and date-mark diluted solutions of chemicals

- **ALWAYS** store chemicals/cleaning solutions safely, out of reach of children
- **ONLY** use chemicals labelled "Suitable for Food Contact Surfaces" in the kitchen area
- **NEVER** store cleaning materials with food or medicine

HOW OFTEN DO WE NEED TO CLEAN AND DISINFECT/SANITISE?

A written cleaning schedule should be implemented in each childcare setting to ensure that an appropriate level of cleanliness is maintained, whether centre staff are responsible for cleaning or an outside cleaning agency is employed. A cleaning schedule ensures that cleaning tasks are not inadvertently missed.

The schedule should clearly identify:

- **WHO** is responsible (who undertakes the task and initials tasks when they are completed)
- **WHAT** is to be cleaned (areas, surfaces, items to be cleaned and/or disinfected)
- **WHEN** it has to be cleaned (how often)
- **HOW** it is to be cleaned (the method of cleaning, chemicals used, protective clothing needed)

An example of a cleaning schedule is attached as Appendix 2.

When writing your own cleaning schedule, you may wish to group items by room, the person responsible, or by frequency (e.g. daily, weekly, etc). Walk through your centre and list everything that is to be cleaned. Start with the structure, e.g. floors, walls, etc., and then look at the fittings and equipment. Next, write down the 'how', 'when' and 'who' for each area/item is to be cleaned.

The areas/items that the schedule must specifically include are:

- Kitchen
- Laundry
- Nappy changing area and surfaces
- Toilet area
- Bedding and other linens
- Toys and play equipment/items

Those allocated the cleaning responsibility should sign/mark off the sheet once the work has been completed. Centre management should carry out regular checks to ensure that cleaning tasks are completed satisfactorily.

Position the cleaning schedule in an area that is regularly and easily accessed or place individual sections of the schedule in the area concerned.

HOW DO WE CLEAN SPECIFIC SURFACES OR ITEMS?

Activity Areas

Hard floors (tiles, vinyl) should be vacuumed or swept daily and wet-mopped (detergent/warm water) at least weekly or more often if soiled. In infant and toddler areas and dining areas, the hard floor should be mopped daily or more often if soiled.

Carpeted areas should be vacuumed daily. Wet or steam-clean carpets at least quarterly in infant areas and at least twice annually in other areas, or more often if soiled.

Animal Cages

Animal cages should be cleaned out regularly to remove faeces, uneaten food, contaminated bedding, etc. Transfer the animal to a temporary holding area if possible. Using gloves, remove and dispose of faecal material, bedding, etc. Thoroughly clean the cage, food containers and fittings with detergent and water and rinse. Disinfect the surfaces using an appropriate 'animal-safe' product, rinse to remove any residues and allow to dry. Add fresh bedding, etc and replace the pet. Clean and disinfect the area around the cage and the temporary holding area. Wash and dry hands thoroughly afterwards.

Bathroom Facilities

Bathroom surfaces such as tap handles, wash hand basins, toilet flush handles/buttons, toilet seats and bowls, toilet door handles, nappy bins, paper towel and soap dispensers should be washed and disinfected at least once per day or more often if visibly soiled.

Shubs, showers and baths should be cleaned and disinfected after each use.

Potties should be cleaned and disinfected after each use.

Floors should be cleaned and disinfected at the end of each day or more often if soiled.

Bottles and Teats

Bottles and teats must be cleaned and sterilised after each use. This can be done by the centre or washed bottles and teats can be given back to parents/caregivers/whanau for cleaning and sterilisation at the end of each day. Before sterilising, bottles and teats must be cleaned thoroughly in hot soapy water to that all traces of milk are removed. One of the following sterilisation methods must then be used:

- **Boiling**

This involves submerging the equipment completely in water and then boiling everything for at least 5 minutes. Make sure you set aside a pan for this purpose only and do not use it for any other cooking.

- **Steaming**

This uses electric steam sterilisers designed for this purpose or specific steamers designed for use in microwaves. All items should be placed up-side down in order to be fully-sterilised. Follow the manufacturer's instructions for use and on what items

can be sterilised safely (certain things cannot be placed in the steam steriliser, e.g. some parts of breast pumps). The microwave or electric sterilisers will keep the contents sterile for some hours provided the lid is secured and is not opened.

- **Sterilising Solutions**

These solutions allow you to sterilise equipment in cold water. They take longer to work (1/2 an hour) but you can leave the bottles to soak overnight (24 hours maximum) and as long as the container is sealed and everything is submerged (check that there are no air bubbles), it will keep things sterilised. Follow the manufacturer's instructions for use.

Cleaning Equipment

Mops should be cleaned after use by washing them in hot water and detergent and then soaking them in a suitable disinfectant. Wring as dry as possible and then hang out to dry.

Separate cloths should be used to clean higher-risk areas (toilets and bathrooms) and their use should be restricted to these areas. These cloths should be clearly identifiable (e.g. using a colour coding system) and must be laundered separately from other laundry items.

Cleaning clothes and rags should be soaked in a sanitiser after use, followed by a hot water laundry wash and drying.

Dummies

Dummies must never be shared by children. When not in use, dummies should be stored in individual sealed plastic containers. Each dummy and container must be clearly marked with the child's name on it. After use, dummies should be washed in hot, soapy water, rinsed and allow to air-dry before being stored. Dummies can also be sterilised using the same methods outlined for babies' bottles.

Kitchen Facilities

Food preparation areas (benches, tables) should be cleaned and disinfected before and after food is prepared and between preparation of raw and cooked foods.

Table tops and high chairs should be cleaned and disinfected before and after meals.

All other kitchen surfaces (floors, sinks, door and cabinet handles) should be cleaned and disinfected daily or more often if soiled.

Fridges should be cleaned weekly, cleaning racks and removing food spillage from the floor. Defrost if necessary.

Ovens and microwaves should be cleaned monthly or more often to remove food spills.

Wash hand basins in kitchens should be cleaned and disinfected at the end of each day or more often if soiled. Do not use the wash hand basin other than for washing hands.

Linen/Bedding/Cots

All items of sleep equipment (mattresses covers, blankets, sheets, pillowcases) must be cleaned and sanitised before being allocated to a specific child. Bedding must not be shared. Each centre should have a procedure for the hygienic laundering of linen, whether on-site or off-site.

Wash linen in a washing machine using a hot water cycle. Dry on the washing line if you can as sunlight kills germs; if this is not possible, use a tumble dryer. Wash bedding separately from other items such as tea towels, etc. Sleep items must be laundered at least weekly or more often when soiled or wet. Mattress covers should be cleaned and disinfected at least weekly, before being used by another child or when soiled or wet. All blankets should be changed and laundered at least once a month or more often if soiled or wet.

Linen soiled with vomit, faeces, blood or other body fluids should be treated the same as a soiled nappy. Linen should be scraped to removed excess material, soaked in an appropriate sanitising solution and then washed separately using a hot-water wash. The linen can then be dried in the sun or on a hot cycle in the clothes dryer. Wear gloves when handling soiled linen and do not carry soiled linen against your clothing – take it to the laundry in a basket or linen bag.

If linen is laundered off-site (by a commercial company or parents/caregivers/whanau) it must be transported in sealed containers or bags. Linen soiled with vomit, faeces, blood or other body fluids must be kept separate in sealed, leak-proof, clearly marked bags. If parents/caregivers/whanau are used, ensure they have clear procedures for laundering to ensure washing is done hygienically.

Cots and stretchers should be cleaned weekly, when used by a different child or more often if visibly soiled. Cot rails should be cleaned and disinfected at least daily, before the cot being used by another child or more often if soiled.

Nappy Changing Facilities

The nappy change area and pad should be thoroughly cleaned and disinfected after every nappy-change and at the end of each day.

Use of disposable towels or single-use cloths on the nappy-changing pad under the child will reduce contamination of the pad. Clean the pad surface with detergent and warm water, then apply an appropriate disinfectant/sanitiser. Allow the recommended contact time (refer to the manufacturers instructions) then rinse and dry the pad. Rinsing will remove any residues that may cause skin irritation. Rinsing after using a bleach solution is not necessary as the chlorine in the solution evaporates; the surface can be dried after the contact time has lapsed.

If faecal matter spills onto the nappy changing pad or table, remove the bulk of the material using paper towels and dispose of in the toilet before cleaning and disinfecting the surface.

Nappy changing pads and covers must be smooth, impervious and in good condition as germs can survive in cracks, holes, folds and seams.

Sand Pits

There is no effective means of disinfecting sand. Use of disinfectants/sanitisers is ineffective due to the large amount of organic material present. To protect the health of children, all

sand that is contaminated, or suspected of being contaminated, with animal or human faeces, blood or other body fluids must be removed. Use a shovel and discard the sand in a plastic bag using your usual refuse disposal procedures. Where extensive contamination has occurred, all the sand should be replaced.

Sand pits should be closely covered when not in use and raked before use each day to remove any solid contaminants. Clean sand by washing water through the sand. Ensure the area is properly drained. Sandpits should be dug over to a depth of about 25cm at least monthly to reduce moisture in the sand and allow exposure to sunlight.

Toothbrushes

Toothbrushes must never be shared by children. Toothbrushes must be clearly and indelibly labelled with the child's name. Store them out of the reach of children and in a manner that prevents toothbrushes touching each other. The bristles must be exposed to the air and allowed to dry after use. Toothbrushes must be replaced with new ones on a regular basis.

Toys

Ideally infants and toddlers should not share toys but in a childcare setting this is often unavoidable. Toys that have been mouthed should be washed and disinfected between users. Toys for young children should be chosen with this in mind (ease of cleaning and disinfection). If you cannot wash it easily and effectively, it is an inappropriate toy for a childcare environment.

After a toy has been mouthed it should be removed from the child and placed in a bin set aside specifically for contaminated toys. The bin should be clearly labelled to prevent the toy being given to another child. The toys should then be cleaned as outlined in Table 2 below.

Studies have shown that hard plastic toys have lower contamination levels than soft (cloth) toys. Soft toys are hard to disinfect and rapidly become re-contaminated after cleaning.

Table 2: Guidelines for Cleaning Toys

Type of Toy	Cleaning Method	Frequency
Hard Plastic (could be mouthed, e.g. small play items, blocks)	<ul style="list-style-type: none"> ▪ Scrub in warm soapy water, rinse ▪ Immerse in sanitiser solution ▪ Allow to soak for recommended period ▪ Rinse in clean water ▪ Air-dry <p>or</p> <ul style="list-style-type: none"> ▪ Wash in dishwasher using hot water wash 	<p>For younger children, where possible after mouthing or at least daily</p> <p>For older children, at least weekly or more often if soiled</p>
Wooden (could be mouthed, e.g. small play items, blocks)	<ul style="list-style-type: none"> ▪ Wipe down with a moist cloth ▪ Wipe the toy with a sanitiser solution ▪ Rinse and dry quickly <p>Never use furniture polish on wooden toys as it may contain chemicals harmful to health.</p>	<p>For younger children, where possible after mouthing or at least daily</p> <p>For older children, at least weekly or more often if soiled</p>

Type of Toy	Cleaning Method	Frequency
Hard Plastic and Wooden (unlikely to be mouthed, e.g. larger play items, trucks, tricycles)	<ul style="list-style-type: none"> ▪ Soap and water wash, rinse ▪ Air-dry Wooden toys should be quickly washed (not soaked) and dried by hand to prevent them absorbing excessive moisture.	At least monthly or more often if soiled
Cloth Toys, Dress-up Clothes	<ul style="list-style-type: none"> ▪ Wash in washing machine using hot water wash ▪ Air-dry or tumble-dry thoroughly 	After each use (if shared toy/clothes are mouthed). If not, at least weekly or more often if soiled.

Water Tables

Water tables can harbour germs that can be spread from person to person. Tables should be emptied after use, and cleaned, sanitised and dried prior to storage. Fill with potable (safe) water immediately before use. Children should wash their hands before and after playing at the water table. Do not allow children with open cuts or wounds to play in the water. Carefully supervise children to ensure they don't drink the water and discard the water from the table after the play session.

HOW DO I CLEAN UP A VOMIT OR FAECAL ACCIDENT?

Vomit and faeces may contain large numbers of infectious germs so strict procedures must be followed to prevent the spread of disease. Get organised as quickly as possible. Having a 'spill kit' prepared will assist here. The spill kit should contain all the items required to clean a soiled child/person (cloths, disposable wipes, towels), protection for staff (disposable gloves, aprons, masks), disposal or containment of soiled items (plastic bags) and to products to clean the contaminated area (paper towels, sanitisers).

The following precautions should be followed:

- Apart from those necessary to attend to the ill person, staff and children should be quickly removed from the room and the area cordoned off.
- Involve as few staff as possible in the clean up operation.
- Spray the area immediately with an air freshening 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.
- Staff should wear disposable gloves and apron. A particulate respirator mask (N95) should be worn if cleaning up vomit which is suspected to have been caused by a gastroenteritis illness.
- The ill person should be removed to the bathroom if further attention is required. Remove any soiled clothing and place in a leak-proof, sealed plastic bag for laundering at home (advise parents/caregivers/whanau of the need to treat soiled clothing carefully and to

soak in suitable sanitiser before laundering them separately using a hot water wash). Do not attempt to squeeze air out of the bag as this may aerosolise the vomit or faecal matter and risk further contamination. Store bags in the laundry room or disabled toilet area until it can be handed to a parent/guardian. Clean the child/person before re-dressing using disposable sanitary wipes, reusable cloths or, bathing/showering as necessary. Used wipes must be placed in a sealed bag for disposal. Used cloths and towels must be bagged and laundered separately as outlined in the section 'Linen' above.

- Contaminated bed linen should be placed in a leak-proof, sealed plastic bag for later laundering (soak in suitable sanitiser before laundering separately using a hot water wash). If an outside laundry company is used or parents/caregivers/whanau are responsible for laundering, they should be advised that the laundry is potentially infectious.
- Use paper towels to soak up excess liquid and to pick up debris and place in a leak-proof, sealed plastic bag for disposal.
- Clean the contaminated and surrounding areas with detergent and hot water using disposable cloths. Place used cloths in a leak-proof, sealed plastic bag.
- Disinfect the contaminated and surrounding areas using a freshly made disinfectant solution (ideally 0.1% hypochlorite solution). Allow at least 30 minutes contact time.
- If the vomit or faecal accident has occurred on carpet or soft furnishings, some disinfectants may not be effective or appropriate on this surface (e.g. bleach solutions may damage/discolour the surface/material). In these situations, the contaminated area should be cleaned with detergent and hot water and the area then steam cleaned (ideally using commercial cleaning equipment but this could be achieved by placing a damp tea-towel over the area and pressing with a hot iron or using a steam-mop). Do not vacuum carpets or soft furnishings until the area has been thoroughly cleaned and disinfected as vacuuming can cause viral particles to become airborne.
- Clean and disinfect all non-disposable cleaning equipment.
- Remove gloves and apron and seal in a plastic bag for disposal. Wash and dry hands thoroughly.
- Restrict access to the contaminated area for at least 30 minutes after cleaning has finished.
- If someone vomits in an area where there is uncovered food, that food must be discarded, the surfaces cleaned and disinfected (as above), and the area closed for at least 30 minutes.

HOW DO I CLEAN UP A BLOOD SPILL?

Blood can contain germs such as Hepatitis B and HIV. To prevent the risk of exposure to these germs, the following precautions should be followed:

- Staff should wear disposable gloves and apron. Ensure any cuts or sores on hands are covered with a waterproof dressing.
- Use paper towels to soak up excess liquid and place in a leak-proof, sealed plastic bag for disposal.
- Disinfect the contaminated and surrounding areas using a freshly made disinfectant solution (ideally 0.1% hypochlorite solution). Allow at least 30 minutes contact time.

- If the spill has occurred on carpet or soft furnishings, some disinfectants may not be effective or appropriate on this surface (e.g. bleach solutions may damage/discolour the carpet). The contaminated area should be cleaned with detergent and hot water and the area then an appropriate disinfectant can be applied or the area steam cleaned (ideally using commercial cleaning equipment).
- Contaminated clothing should be placed in a leak-proof, sealed plastic bag for later laundering (soak in suitable sanitiser before laundering using a hot water wash). If an outside laundry company is used they should be advised that the laundry is potentially infectious.
- Remove gloves and apron and seal in a bag for disposal. Wash and dry hands thoroughly.

HOW DO I CLEAN UP NASAL DISCHARGES?

Nasal discharge can contain germs such as the common cold, influenza, scarlet fever and measles. To prevent the risk of exposure to these germs, the following precautions should be followed:

- Wash your hands or use an alcohol-based hand sanitiser every time after you wipe a child's nose.
- Use tissues to remove the discharge and discard used tissues into a sealed, lined container.

WHAT IF THERE IS AN OUTBREAK OF ILLNESS AT THE CENTRE?

You can reduce the likelihood of disease outbreaks occurring at your centre by carrying out thorough and effective cleaning of the environment, excluding children and staff who are unwell, encouraging thorough hand washing and drying and other infection control practices. However, sometimes outbreaks may occur despite following good practices.

If you think that you are experiencing more than the normal level of illness at your centre, please contact your Health Protection Officer or Public Health Nurse. They will be able to give you advice and guidance on how to control the spread of the illness within your centre.

During an outbreak, Public Health staff may ask you to increase the frequency of cleaning and sanitising/disinfecting of potentially contaminated areas (this includes toilets, showers, kitchen, nappy change areas and surrounding areas including walls, floor, benches, taps, toilet and door handles etc.) or to change the strength or type of disinfectant being used.

Briefings should be provided giving clear instructions to staff outlining:

- Transmission of the illness and appropriate infection control procedures including the need for scrupulous personal hygiene
- Cleaning and disinfection procedures
- Isolation of affected children until parents/caregivers/whanau collect them
- Ill staff to remain away from work
- Not to allow previously ill children back to the centre until an appropriate recovery period has passed (refer to the Ministry of Health's Infectious Disease Chart for exclusion criteria)

POLICIES

It is important that every childcare centre has proper written policies for:

- General cleaning of the childcare environment (indoors and outdoors)
- Management and cleaning/sanitising of specific items such as bedding, linen, toys, play equipment and play clothing
- Safe work practices for high risk activities such as:
 - dealing with blood and body discharges (vomit, faeces and nasal secretions) and nappy changing and toileting
 - washing/bathing soiled children
 - handling and laundering contaminated or soiled linen, bedding and clothing
 - preparing and handling food (including drink provision and bottle feeds)
- Managing cases of sickness or infectious disease, including exclusion of sick children and staff
- Animal welfare

A policy is made of two parts. The first part is the policy statement which is a short statement that gives the reason or need for the policy. The second part are the practices or procedures; these explain what will occur in the childcare centre on a daily basis to ensure the policy statement is met. The practices provide clear instructions to staff on how they should behave and what they have to do. Practices also let parents/caregivers/whanau and management know that is going to happen at the centre when they are not present.

The information contained in this document may be of assistance to centres writing or reviewing health, hygiene and safety related policies.

REQUIRE FURTHER INFORMATION?

For any queries, assistance and advice, please contact a Health Protection Officer or Public Health Nurse at either:

The Public Health Centre
Wanganui Hospital
Heads Road
Private Bag 3003
WANGANUI
Telephone: (06) 348 1775

The Public Health Unit
Palmerston North Hospital
Heretaunga Street
Private Bag 11036
PALMERSTON NORTH
Telephone: (06) 350 9110

Other relevant Public Health Service information available to ECE Services include:

- Preventing Infectious Illnesses in Early Childhood Education Services
- Disease Outbreaks in Early Childhood Education Services
- Washing Sick or Soiled Children in Early Childhood Education Services
- Water Temperatures for Early Childhood Education Services
- Lead-Based Paints for Early Childhood Education Services
- Dishwashing for Early Childhood Education Services

APPENDIX 1: MAKING UP 0.1% BLEACH SOLUTION

Supermarket bleaches are sold at different strengths, usually 2-5% hypochlorite solution, so check the label. The recommended concentration of bleach solution for most disinfecting purposes is 0.1% hypochlorite. To achieve this, the bleach solution will have to be diluted with water. The following steps are for bleach solutions containing 4% hypochlorite; use the table below if the bleach solution has a different hypochlorite concentration.

For Bleach Containing 4% Hypochlorite¹

1. Diluted disinfectant solution must be **made up fresh each day**, or it may not work. Check that the bleach is not past its **use-by date**.
2. A container (non-food container of at least 1 litre) should be **clearly and boldly labelled** "0.1% bleach solution" and "Keep out of reach of children".
Check the label has not faded or come off, and that the container is not damaged or perished.
3. **Wear gloves** when handling bleach, particularly undiluted bleach. Bleach may irritate the nose, lungs and skin, or damage clothing. **Never mix chemicals**, as toxic gases can be produced.
4. Fill the container with **25ml of bleach** (equivalent to 5 tsp).
5. **Add 975ml of water** (measured with a measuring cup), or up to the 1000ml (1 litre) mark if the container has one.
6. Put the **lid tightly** on the container and mix gently and carefully. The solution can be decanted into appropriately labelled spray bottles if required.
7. **Bleach solution must be kept out of reach of children.** Undiluted bleach must be stored in a childproof area (e.g. inside a locked cupboard), and away from light and heat (which can reduce its effectiveness).
8. **The end of the day, discard all remaining bleach solution.** *Suggestion: Use the leftover bleach for soaking toys while completing other tasks at the end of the day.*

For Bleach Containing Other Concentrations of Hypochlorite

Follow the above instructions, but alter the quantities of bleach and water according to the strength of hypochlorite found in the bleach:

ORIGINAL STRENGTH OF BLEACH		Quantity of bleach	Quantity of water	Total volume of diluted solution
% hypochlorite	g/l hypochlorite			
1 %	1 g/l	100 ml	900 ml	1000 ml
2 %	2 g/l	50 ml	950 ml	1000 ml
3 %	3 g/l	33 ml	967 ml	1000 ml
4 %	4 g/l	25 ml	975 ml (as above)	1000 ml (as above)
5 %	5 g/l	20 ml	980 ml	1000 ml

To increase the amount of 0.1% solution made

Double (or triple) the amount of bleach **and** water added.

¹ Most bleaches available at supermarkets contain about 4% hypochlorite.

APPENDIX 2: EXAMPLE OF A CLEANING SCHEDULE

Please note: This example outlines a routine cleaning programme for some areas of a childcare facility. Frequency of cleaning will vary depending on day to day activities and the level of soiling. It does not cover cleaning/sanitising of high risk surfaces such as nappy change areas, potties, baths/shubs, which have to be cleaned and sanitised after **each use**.

In high risk areas (kitchen, bathroom and nappy changing areas), cleaning and sanitising may be required more frequently when surfaces become soiled or to control a disease outbreak.

WEEK COMMENCING: _____

Area (items to clean)	Clean	Disinfect	Method	Frequency and Responsibility	Completed (tick off when done)
Kitchen Food preparation benches, tabletops, high chairs Floors, sinks, door and cabinet handles Cooking appliances	✓ ✓ ✓	✓ ✓	<i>Example:</i> <i>Clean:</i> Scrub/mop surface with hot water with 100ml "Zappy" detergent added. Rinse with clean water. <i>Disinfect:</i> Wet surface with 0.1% bleach solution and leave 20 minutes. Rinse and allow to air dry. <i>PPE:</i> Wear gloves.	Frequency: DAILY Person Responsible: _____	<input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday <input type="radio"/> Sunday
Kitchen Fridges, cupboards and food storage areas Ceilings and walls	✓ ✓	✓		Frequency: WEEKLY Person Responsible: _____	<input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday <input type="radio"/> Sunday
Bathroom Wash hand basins, taps, counter tops, soap dispensers, door handles Toilet seats and bowls, floors	✓ ✓	✓ ✓		Frequency: DAILY Person Responsible: _____	<input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday <input type="radio"/> Sunday
Activity Areas Carpets/Rugs Furniture Plastic toys	✓ ✓ ✓	✓	<i>Example:</i> Vacuum when children are absent.	Frequency: DAILY Person Responsible: _____	<input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday <input type="radio"/> Sunday