

# Cleaning and disinfection

## Maintaining healthy standards at your ECE

Maintaining good hygiene, disinfection and cleaning standards is essential to preventing the spread of disease and illness. This protects children, staff and whānau at your early childhood education centre (ECE), Language Nest or Kōhanga Reo against dangerous tummy bugs.

This guide sets out best practice cleaning and disinfection processes to beat the bugs, and provides templates you can use at your centre to keep up good standards.

## Preventing gastro illness and disease in early education centres

### Risks

Common tummy bugs (gastro illnesses) in ECEs can include giardia, cryptosporidium, salmonella, campylobacter and norovirus. These bugs tend to cause diarrhoea (runny poo) and vomiting, alongside other symptoms. In young children they can sometimes be very serious.

People with these bugs can pass them on to others through their faeces (poo) and sometimes their vomit. If someone who is unwell does not wash their hands properly after going to the toilet they may contaminate (make unsafe) objects and surfaces they touch, such as toys and play areas, or if they handle food and drink for others.

Young children in ECEs do not always practice proper hand hygiene, meaning it can be very easy for these diseases to be passed on to others. If multiple people develop an illness in the same place, it is referred to as an 'outbreak'.

### Prevention

The best ways to prevent the spread of gastro illness and disease at your ECE are:

- Rigorous cleaning and disinfection schedules, using appropriate materials.
- Keeping children who are unwell away. Anyone with diarrhoea should be kept away until at least 48 hours after their diarrhoea symptoms stop. For some diseases individuals may require testing to check they are no longer infectious before returning.
- Encouraging proper handwashing and drying, before and after:
  - going to the toilet
  - preparing or eating food and having drinks
  - changing nappies
- Supervising handwashing for young children, especially if you have an outbreak.

## Clean first, disinfect after

Cleaning should always happen before disinfecting an area, as it helps the disinfection to work more effectively.

This may involve wiping and scrubbing an area with hot water, soaps, detergents, scourers (e.g. “Jif”, “Ajax”, “Spray’n’Wipe”).

Cleaning does not disinfect areas by itself. If you only clean and scrub, harmful bugs and bacteria will still remain.

## Use hypochlorite bleach for disinfection

The types of diseases often identified in ECEs are resistant to most common disinfectants. It's therefore recommended ECEs only use disinfectants containing a chemical called hypochlorite (commonly referred to as bleach).

Hypochlorite is very effective, widely available, cheap and safe if used and stored properly. It is commonly used in homes, schools, hospitals, swimming pools and in drinking water supplies.

Hypochlorite brand products include ‘Janola’ for surfaces and objects, and ‘Harpic Plus Bleach Liquid Toilet Cleaner’ and ‘Janola Bleach Powder Toilet Gel’ for toilets.

## Hypochlorite solution strengths

Household bleaches are sold in different strengths, usually 2 - 5% hypochlorite. The strength is normally written on the label.

Bleach is then mixed with water to make different strength ‘solutions’. Different strength solutions are required for different areas.

### 0.1% hypochlorite solution

This should be used on all surfaces and objects after each individual nappy change. It should then

be washed off surfaces and objects with a water spray, to avoid irritation of sensitive skin.

### 0.5% hypochlorite

This should be used for general sanitation of all other areas and surfaces. At the end of each day this concentration should also be used on all nappy changing surfaces.

## Using a 0.5% strength bleach solution

- **Dilute:** mix the bleach with water to make a 0.5% strength hypochlorite solution (instructions on doing this safely are below).
- **Saturate:** the area that needs to be disinfected with the hypochlorite solution.
- **Wait:** leave the solution on the area for as long as possible, preferably 30 minutes.
- **Wash off:** wash away the solution using lots amounts of water. This prevents children and staff being exposed to bleach solution. If outside, use a hose.

## Bleach alternatives

Sometimes people find bleach unpleasant to work with and seek out alternative products.

If you or your cleaning provider wish to use an alternative disinfectant, you need scientific evidence (from the manufacturer) of the effectiveness of the disinfectant.

Before purchasing request confirmation the product can destroy:

- germs such as giardia and cryptosporidium
- bacteria such as salmonella and campylobacter
- viruses, such as rotavirus, norovirus / Norwalk-like viruses

If it not effective against all of these it is not safe to use in an ECE. Even if a manufacturer claims the product is used in other high-risk settings, such as hospitals, it may not be suitable for an ECE.

## How often you should clean and disinfect your ECE

Different areas in an ECE require different cleaning and disinfection practices.

### Nappy-changing areas

These should be cleaned and disinfected after every nappy change, using a 0.1% hypochlorite solution and water.

At the end of every day they should be disinfected fully using a 0.5% hypochlorite solution.

If a child has a faecal accident, clean the child in the shub, change their clothes and clean and disinfect any soiled surfaces immediately.

### Toys, floors, sinks, toilets and other hard surfaces

These should be cleaned and disinfected at least daily.

### Food preparation areas

These should be kept clean and disinfected to avoid cross-contamination. All staff handling food should also have food safety training.

### Linen

Linen should be laundered between use by different children (and at least weekly), and again if soiled in faeces or vomit.

Linen should be dried on a washing line in direct sunlight, or in a tumble-drier. This further helps to kill germs.

While being washed each child's bedclothes, clothes and belongings should be kept separate from those of other children.

### Soft toys, dressing up clothes and soft furnishings

These should be laundered regularly and again if soiled by faeces or vomit.

### Outdoor play equipment

This should be cleaned and disinfected regularly.

If soiled, some artificial grass surfaces can be disinfected with hypochlorite bleach (check with your supplier). If soiled artificial grass cannot be disinfected it should be thrown away.

## Disinfecting sand and sandpits

Sandpits can be contaminated by animal droppings, soiled by vomit and human faeces (if a child has an accident while playing), and made unsafe by hazardous items such as broken glass.

To prevent sandpits being contaminated or made unsafe they should be:

- protected with a tight-fitting cover, to prevent animals using it
- raked at least daily (and preferably before and after each use), to ensure hazards (such as glass or animal droppings) can be removed.

Sand needs to be thrown away and replaced if it is made unsafe, contaminated, or you think it may have been contaminated. There is no effective way to disinfect sand.

Sand can be thrown away using your usual refuse disposal procedures.

Further guidance on construction and maintenance of sandpits is available from the Ministry of Education:

<https://www.education.govt.nz/early-childhood/running-a-service/starting-a-service/starting-a-centre-based-ece-service/playgrounds/>

## Creating cleaning schedules

Cleaning schedules help make sure cleaning and disinfecting is done as often as necessary. They should be developed for your ECE, even if an outside cleaning agency is used on the premises.

A good cleaning schedule clearly identifies;

- **Who** – who is in charge of each area (with initials placed when tasks are completed)
- **What** – which utensils, equipment, areas need to be cleaned
- **How** – the method of cleaning required, including cleaning and disinfecting agents used and solution strengths
- **When** – how often cleaning is required

The cleaning schedule should cover your ECE's:

- Kitchen
- Laundry
- Nappy changing area and surfaces
- Toilet areas
- Toys and play equipment
- Outdoor areas

## Using and storing bleach safely and correctly

Bleach can be hazardous if not used or stored correctly. Even when used properly, bleach can still irritate your nose, lungs and skin, and some people are particularly sensitive to bleach.

To stay safe when using bleach:

- Never mix different chemicals, as this can produce harmful toxic gases.

- Always wear gloves, particularly if handling undiluted bleach.
- Wearing a face mask and long sleeved clothing may also help protect against irritation.
- Store disinfectants and diluted disinfectants safely and label them properly.

Bleach solutions lose strength over time, meaning they will not be as effective in fighting germs. Ideally a fresh batch of each solution should be made each day.

If you need to store unused solutions for the next day place them in a cool dark place to help maintain their effectiveness.

## Responding to a disease outbreak

Even when ECEs follow best practice, disease outbreaks can still occur. Gastro bugs can be very infectious and children pass them on to others very easily.

If a gastro outbreak is identified at your ECE health professionals can support you to stamp it out. Key steps may include:

- increasing the frequency of cleaning and disinfection at your ECE
- increasing the strength of disinfectant solutions being used at your ECE
- keeping unwell children and staff away
- providing advice to families and whānau on symptoms to watch out for and when to seek health advice

## Making a 0.1% and 0.5% hypochlorite solution

Hypochlorite solutions lose strength so always prepare enough for each day. If you need to store unused dilutions, place it in a cool dark place.

To increase the amount of solution made double (or triple) the amount of bleach and water added

### 0.1 % hypochlorite

| Strength of bleach |                      | Quantity of bleach | Quantity of water | Total volume of diluted solution |
|--------------------|----------------------|--------------------|-------------------|----------------------------------|
| % hypochlorite     | g/100ml hypochlorite |                    |                   |                                  |
| 0.5% <sup>1</sup>  | 0.5 g/100ml          | 50ml               | 450 ml            | 500 ml                           |
| 2%                 | 2 g/100ml            | 25 ml              | 475 ml            | 500 ml                           |
| 3%                 | 3 g/100ml            | 10 ml              | 290 ml            | 300 ml                           |
| 4%                 | 4 g/100ml            | 10 ml              | 390 ml            | 400 ml                           |
| 5%                 | 5 g/100ml            | 10 ml              | 490 ml            | 500 ml                           |

### 0.5% hypochlorite

| Strength of bleach |                      | Quantity of bleach | Quantity of water | Total volume of diluted solution |
|--------------------|----------------------|--------------------|-------------------|----------------------------------|
| % hypochlorite     | g/100ml hypochlorite |                    |                   |                                  |
| 0.5%               | 0.5 g/100ml          | Use undiluted      | Nil               | Use undiluted                    |
| 2%                 | 2 g/100ml            | 100 ml             | 300 ml            | 400 ml                           |
| 3%                 | 3 g/100ml            | 50 ml              | 250 ml            | 300 ml                           |
| 4%                 | 4 g/100ml            | 50 ml              | 350 ml            | 400 ml                           |
| 5%                 | 5 g/100ml            | 50 ml              | 450 ml            | 500 ml                           |

