Auckland Regional Public Health Service
Rātonga Hauora ā Iwi o Tamaki Makaurau
AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai
Waitemata District Health Board
Best Care for Everyone
COUNTIES MANUKAU HEALTH
Working with the people of Auckland, Waitemata and Counties Manukau

Recommendations for Cleaning and Disinfecting Early Childhood Education Centres

A high level of hygiene should be maintained throughout the centre at all times to prevent the spread of communicable diseases.

Why we recommend "Bleach" as a Disinfectant

Recently there have been outbreaks in early childhood education centres of diseases caused by micro-organisms (germs) such as giardia and cryptosporidium (protozoa), salmonella (bacteria) and Norwalk-like viruses (a virus). Because many of these micro-organisms (especially protozoal cysts and viruses) are resistant to most disinfectants, we recommend that **only disinfectants containing the chemical hypochlorite are used or stored on the premises.**

Hypochlorite has long been recognised as having outstanding disinfection properties, and is widely available, cheap, and 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", "Brite Bleach", "White Magic", "Hypersol", "Exit Mould", "Hypersol"

And some toilet cleaners, including:

- "Harpic Plus Bleach Liquid Toilet Cleaner", "Janola Bleach Powder Toilet Gel"

Bleach is unpleasant to work with, and centres are often keen to find alternatives. If you wish to use an alternative disinfectant, you must have scientific evidence (from your supplier) of the effectiveness of the disinfectant against a very wide range of micro-organisms including bacteria, viruses and protozoal cysts. (Beware of misleading sales tactics such as the phrase "used in hospitals"- nappies are not changed in all areas of a hospital!).

Hypochlorite strengthens:

- **0.1%** hypochlorite should be accessible and used after each nappy changing. (The sanitiser should be washed off with a water spray after use, as the sanitiser itself may cause irritation of sensitive skin. The sanitiser should be stored so that it is inaccessible to the children).
- **0.5%** hypochlorite should be used for general sanitation of bathroom, and toilet surfaces. At the end of each day this concentration should then be used on nappy change surfaces.

Cleaning Schedules

Cleaning schedules are a means of ensuring cleaning and disinfecting is done as often as necessary. They should be developed for the centre, even if an outside cleaning agency is used to clean the premises. The areas that the schedules must specifically include are:

- kitchen
- laundry

- nappy changing area and surface
- toilet areas
- toys and play equipment.

A good cleaning schedule clearly identifies:

- a responsible person (who initials when tasks are completed)
- utensils / equipment / areas that should be cleaned
- a method of cleaning, including cleaning and disinfecting agents
- frequency of cleaning

A suggested template for a cleaning schedule is attached.

Recommended Minimum Frequency of Cleaning and Disinfecting

- Nappy-changing areas should be cleaned and disinfected **after every nappy change**.
- If a child has a faecal accident (poos their pants), 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 should be cleaned and disinfected **at least daily**.
- Food preparation areas should be kept clean and disinfected to avoid cross-contamination- all staff handling food should have **food safety training**.
- Linen should be laundered **between use by different children**, and/or when soiled, and at least weekly. Dry on the washing line if you can, as the sunlight kills germs. (If this is not possible, use a tumble-drier). Each child's bedclothes, clothes and belongings should be kept separate.
- Soft toys, dressing up clothes and soft furnishings should be laundered regularly or whenever soiled.
- Outdoor play equipment should be cleaned and disinfected regularly. Some artificial grass surfaces can be disinfected with hypochlorite bleach- check with your supplier.

Cleaning

- Clean first before disinfecting, to allow disinfectants to work. Soaps, detergents, scourers (e.g. "Jif", "Ajax", "Spray'n'Wipe") and hot water help with cleaning, but do not disinfect. Scrubbing is also ineffective.

Disinfecting general areas

- Household bleaches (e.g. "Janola", "White Magic" etc.) are sold in different strengths (usually 2%-5% hypochlorite) that are written on the label.
- Dilute the bleach with water to make a **0.5% hypochlorite** solution (see instructions attached).
- **Saturate** the area to be disinfected with the hypochlorite solution.
- **Leave** the solution on the area **for as long as possible**, preferably 30 minutes.
- **Wash off** the solution thoroughly with copious amounts of water, so that children and staff are not exposed to residual bleach solution. (Use a hose if outside).
- If a toilet cleaner is used, use a product that contains at least 0.5% hypochlorite.

Safety Tips

- **Never** mix chemicals as toxic gases can be produced.
- Be aware- bleach irritates the nose, lungs and skin, and some people are particularly sensitive.
- Wear gloves, particularly if handling undiluted bleach.
- Store disinfectants and diluted disinfectants safely and label them properly.

Outbreaks

- You can reduce the likelihood of experiencing outbreaks of disease at the centre by following cleaning schedules, excluding children who are unwell, encouraging hand-washing and hand-drying and other infection control practices. However, sometimes outbreaks may occur despite following good practice.
- During and following an outbreak of a communicable disease, we may ask you to increase the frequency of cleaning or disinfecting, or the strength or type of disinfectant used.

Disinfecting Sand and Sandpits

- ESR has advised that there is no effective means of disinfecting sand. (Methods that use household bleach or salt are ineffective).
- To protect the health of children, all sand that is contaminated, or suspected to be contaminated, must be discarded using your usual refuse disposal procedures.
- Sandpits should be protected with a tight-fitting cover, and the sandpit must be raked at least daily (and preferably before and after each use) to ensure hazards (such as glass, animal droppings) can be removed.
- The Ministry of Education may provide more detailed advice about design, construction and maintenance of sandpits.

For more information, please contact the Environmental Health Team, Auckland Regional Public Health Service on (09) 623 4600.

Making a 0.1% and 0.5% hypochlorite solution

By using bleach containing different concentrations of hypochlorite

Follow the above instructions, but alter the quantities of bleach and water according to the following table:

For making **0.1%** hypochlorite:

Strength of bleach		Quantity of bleach	Quantity of water	Total volume of diluted solution
% hypochlorite	g/100ml hypochlorite			
0.5%[1]	0.5 g/100ml	50ml	450ml	500ml
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

For making **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

To increase the amount of solution made

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

Caution:

Hypochlorite solutions lose strength so prepare enough for each day or store unused dilutions in a cool dark place.

[1] Recently 0.5% hypochlorite solution has become available for use undiluted (straight from the bottle). Check for a manufacturer's assurance that the concentration will not vary significant or reduce over time to less than 0.5%.

Cleaning Schedule

Item/area to be cleaned	Cleaning frequency	Cleaning product name	Cleaning method	Disinfectant (bleach)	Person responsible	Date completed	Initials (when complete)
				0.5% hypochlorite			
				0.5% hypochlorite			
				0.5% hypochlorite			
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				0.5% hypochlorite			
				0.5% hypochlorite			

Adapted from "A Guide to Working Safely with Food", Auckland City Council.

Suggestions: *You can ask us for an electronic copy of this template to adapt.*
You could group items by room, person responsible, or by frequency (e.g. daily, weekly etc).
Fill in the first six columns, then laminate. Use a whiteboard marker to date and initial tasks as they are completed