

Bathrooms (Sanitation & Hygiene) in an Emergency

The lack of sanitation facilities following a major disaster can quickly create a disaster within an disaster unless basic guidelines are followed.

In a disaster you may not be able to use your normal toilet if sewerage lines are broken or damaged or there is a lack of water for flushing. Portable toilets are difficult for municipalities to manage on a large scale considering the number that may be required to service a neighborhood and, frankly, they can become very odorous very quickly.

For a complete guide to personal and household sanitation we recommend [The Sewer Catastrophe Companion: Dry Toilets for Wet Disasters](#).

The following has been reprinted with thanks to PHLUSH.org (Public Hygiene Lets Us Stay Human)

Option 1: New Zealand/Christchurch Twin No-Mix Bucket Emergency Toilet

What do you need?

- 2 to 4 plastic buckets (5 or 6 gal. size)
- Lids for buckets with a good seal
- A toilet seat
- Carbon material: 1 or 2 gal. plastic bags of sawdust, shredded paper, pulverized dry leaves or peatmoss.

Supermarkets and bakeries often will give you used buckets for free though they may lack lids. Lids and buckets are sold at hardware stores and online. At least one lid should have a good seal. Buckets are useful for storing other emergency supplies.

Your emergency supplies should also include hygiene items: toilet paper, hand sanitizer, soap, sanitary napkins, plastic collection bags of various sizes and this Instruction Sheet.



Making a seat for your emergency toilet

It's easy to make a seat for your emergency toilet - you can simply cut a hole in a garden chair and place it over your bucket toilet.

Toilet seats can also be unscrewed from existing toilets and attached to the chair. You can also build a frame with toilet seats to use more comfortably. Any frame should be strong enough to support users, easy to clean (painting or varnishing will help) and easy to open so buckets can be removed and emptied.

Toilet seats that fit buckets are available at camping stores or on line.

How do you use the toilet?

1. Mark the twin buckets "pee" and "poo" (or #1 and #2 or urine and feces, or yellow and brown, etc).
2. Set them up in a private space. The seat can be moved from one to the other.
3. Scratch your head and decide if you need to use the pee bucket or the poo bucket.
4. Try not to pee in the poo bucket. This is really important but it is understandable that this isn't always possible. The pee is the component that produces the bad smell in toilets that mix.
5. After using the pee bucket remove the seat and cover with a lid that closes well.
6. After using the poo bucket, sprinkle about a half cup of the carbon material so that it completely covers the surface of the poo. This will eliminate odors and ensure flies don't make themselves at home.
7. Toilet paper is just fine for the poo bucket but not for the pee bucket.
8. Put the toilet seat back down ensuring it's not airtight. Give your poo some air and it will dry out and reduce in volume.



The New Zealand/Christchurch Twin No-Mix Toilet

Remember that in an emergency people are vulnerable and scared. If your flush toilet doesn't work and the sewers are down, folks in your household will appreciate the comfort, hygiene and safety that come with this simple twin toilet.

What do you do when buckets fill up?

The really great feature of the Christchurch Twin Bucket is that it is No-Mix. It separates pee and poo, makes each of them easier to handle and almost completely eliminates odor.

A day's worth of pee has almost 10 times the volume of poo. So the pee bucket will fill up a lot faster. The volume of pee is why a single bucket camp toilet fills up quickly and the mix is a mess to deal with. The great thing about pee is that it's clean (unless someone is sick) and getting rid of it is not difficult. If you have extra buckets and lids, you can store it until it can be put in the soil (6 to 8 inches below the surface) or added to a compost pile. In a real emergency you can dump urine in a street drain or the river, although a wooded area is preferable. What's special about the Twin, it that it works even for high-rise apartment dwellers.

It's the poo bucket that contains most of the pathogens. But the great thing about poo is that it doesn't take up much space. Left to dry in a bucket with some carbon material, poo simply decomposes into compost. In a small household it will take a couple of weeks for the poo bucket to fill so just leave it be and give it some air. Poo is manageable, although there will still be pathogens.

Note: Compost that is safe to reuse on gardens requires extra work. At www.composttoilets.co.nz the New Zealand team explains how to safely use urine and composted poo as fertilizers for crops.

Helping children to use Bucket Toilets

Keep the gap between the toilet seat and the bucket as small as possible, to reduce accidents. Raise it up so it is touching the seat or frame. Ensure your usual toilet is sealed shut so it can't be used. For young children use symbols or paintings to help them learn which toilet can be used.

Option 2: Line your Existing Toilet

If the toilet is NOT able to be flushed, it can still be used. This is less stressful for most people than using some other container. Remove all the bowl water. Line it with a heavy-duty plastic bag (or multiple light weight bags). When finished, add a small amount of deodorant or disinfectant, securely tie the bag, and dispose of it in a large trash can with a tight fitting lid. This large trashcan should also be lined with a sturdy trash bag. Eventually, the Municipality will provide a means to dispose of these bags.

Store a large supply of heavy-duty plastic bags, twist ties, disinfectant, and toilet paper

A good disinfectant that is easy to use is a solution of 1 part liquid bleach to 10 parts water. Dry bleach is caustic and not safe for this type of use.

Option 3: Long-drop toilet

To create an emergency long-drop you will need:

- Tools to dig the long-drop, such as a spade or post hole borer
- Soil or other fill

Dig a hole up to one metre deep and 30 - 40 cm wide. Make sure the hole is away from any water source, above the ground water table and far from any vegetable gardens.

After each use, cover the waste with soil or other mulch. Place a piece of board or heavy duty cardboard over the hole when not in use. This will discourage pests or pets from getting into the toilet.

When the hole is full to about 30 cm below surface level, fill with soil and dig a new long-drop.

This hole can also be used to hold the solid waste from a the Bucket Toilet.

Safe handling tips

- After using the toilet wash your hands thoroughly using soap and water, or hand sanitiser. Dry your hands thoroughly.

- If possible use gloves when emptying buckets, make sure you wash your hands thoroughly using soap and water, or hand sanitiser. Dry your hands thoroughly.
- Rinse and clean the faeces bucket after emptying
- Disinfect with a dilute bleach solution if necessary
- Someone in your house has to be responsible for emergency toilet duties - emptying and cleaning the buckets
- Keep the toilet and waste material well separated from any food preparation areas
- If someone does get sick (e.g. vomiting or diarrhoea), try and use another bucket. Take extra care when emptying the bucket and disinfect with a dilute bleach solution. Seek medical attention if symptoms persist.

Reference: www.phlush.org

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