

Why do we need buckets in our emergency kits? *Earthquakes!*

Earthquakes (and other disasters) cause severe damage to water, sewer and septic systems preventing our plumbed toilets from working properly. Earthquake activity in Jefferson County is 113% greater than the overall U.S. average. FEMA has determined that Washington State ranks second (behind only California) among states most susceptible to severe earthquakes.

Recent earthquakes in New Zealand left 50,000 people without a functioning sewer system and unable to flush their toilets for months. People adopted and relied on the twin-bucket toilet system during emergency stage of the crisis.



Twin-Bucket Toilet System

Obsolete examples of emergency toilet substitutes include: plastic garbage bags and twist ties, or single-bucket camping toilet, or worse, trench or pit latrines. In contrast, a twin-bucket toilet system and not mixing urine and feces is a proven principle of ecological sanitation.

The Solution

Use the **Twin-Bucket Emergency Toilet!** It was adapted from the New Zealand disaster and works even for apartment dwellers. It's used following a disaster and not as normal practice.

Twin-Bucket Toilet is:

- Simple to acquire
- Affordable (bucket, lids and a seat cost \$20 or less)
- Safe and manageable
- Compact (hygiene supplies in nested bucket keeps everything together)

Getting Everything Together

- Plastic buckets – 3.5 to 5 gal. size. Get 2 buckets to get started and add 1 more bucket per household member as needed. 
- Lids for each bucket that close tightly and one toilet seat designed to fit on a bucket.
- Keep toilet paper, soap, bottled water, disposable gloves, hand sanitizer, towels or wipes, disposable diapers, and carbon material in your sanitation kit.   
Toilet paper Gloves Soap, towels, wipes
- Carbon material to cover poo; a supply of finely shredded paper, small pieces of torn newspaper, sawdust, wood chips, dried leaves, peat moss, forest litter, or coir fiber* (about a gallon bag per day). **Carbon can't be put in a septic system – this is for moisture and odor control while waiting for disposal instructions.**

* Coir fiber is compact, light-weight coconut husk fiber found in most garden centers

The No-Mix Principle

When separating pee and poo, the twin-bucket toilet reduces disease risk and odor and makes the contents of each bucket easier to handle.

Urine has almost no health risk. With extra buckets and lids, you can store pee effectively while waiting for disposal instructions.

The poo bucket contains most of the pathogens. Poo needs to be contained until it is treated but doesn't take up much space. Each of us produce only 4-10 oz daily. It takes approximately a week for 2 people to fill a 5 gallon bucket with poo and carbon material.

Using the Twin-Bucket Toilet System

1. Mark the twin buckets "pee" and "poo" (or #1 and # 2, or urine and feces, or yellow and brown) 

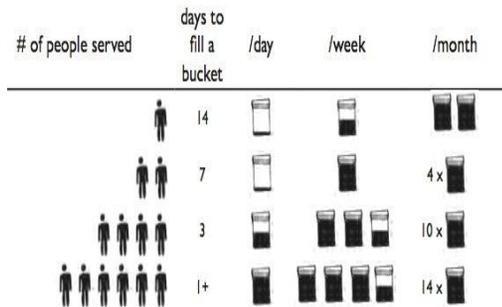
2. Put buckets in a private space with carbon covering material nearby, along with a plastic scoop.
3. The seat can be moved from one bucket to the other. After use, remove the seat from the bucket and cover with a lid that closes well.
4. Try not to mix pee and poo. This is important although it's understandable that there will be mistakes. The pee is the component that produces the bad smell when the two mix.
5. After using the pee bucket, you can put the toilet paper in the poo bucket.
6. After using the poo bucket, add carbon material to your poo bucket for moisture and odor control.

When Sewers are Broken or Leaking What Do You Do?

Sewer lines can break under your house, at the street or anywhere down the line to the treatment plant. If broken under your house or under the street, it will be hard to impossible to know. After a disaster, **DO NOT flush a toilet** until given the OK by a local official. Acquire the necessary supplies before the disaster.

After a Disaster, DO...

- **DO** seek information from: NIXLE alerts, FM KPTZ 91.9, KROH 91.1, or www.jeffcoecoc.org.
- **DO** follow all instructions for storage and disposal from fire, law, emergency management, and sanitation officials.
- **DO use a Twin-Bucket Emergency Toilet** and keep pee and poo separate for disease and odor control.
- **DO** add carbon material to your poo bucket for moisture and odor control. Carbon materials include: finely shredded paper, small pieces of torn newspaper, sawdust, wood chips, dried leaves, peat moss, (1 to 2 scoops with each addition).
- **DO** store pee and poo in the buckets and **WAIT** for disposal instructions from authorities.



This chart assumes 2 large scoops of carbon cover and lots of toilet paper used with each addition. Bucket considered full at 4/5ths full.

After a Disaster, DO NOT ...

- **DO NOT flush a toilet** until told it's OK.
- **DO NOT dig a pit privy.** With our seasonally saturated soils, disease organisms can easily contaminate neighboring properties.
- **DO NOT** place baby or adult diapers, sanitary pads, or bagged pet waste in pee or poo buckets. Dispose of them in trash.

Hygiene is Critical to Preserving Health

Hand washing is critical for food prep, eating, first aid, and the twin-bucket toilet area. Wash with foaming soap. It does not require water to lather up, generating a significant water savings. Use of hand sanitizers, disposable gloves and wipes help conserve your emergency water supply.

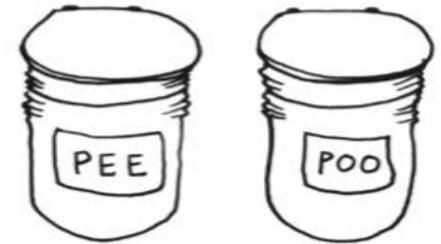
If You Care for Medically Fragile People

Consider having a bedside commode readily available. Having a bedside commode over the Twin-Bucket Emergency Toilet bucket allows the injured or medically fragile to manage safely.



SEWER SYSTEM

Twin-Bucket Emergency Toilet



When the ground shakes, septic and sewer lines break!

Flush toilets should not be used!

Have an Emergency Sanitation Plan before the SEWER SYSTEM breaks.



Department of Emergency Management (DEM)