



LANCE LUKE

Clogged Pipes Partly Due to TP Shortage

Hawaii plumbers have been busy since the pandemic quarantine began

Some facts surrounding the recent high number of calls to plumbers due to clogged pipes:
 Have you seen the long lines at Costco? Hey, brother, can you spare a roll?

The current COVID-19 pandemic has contributed to a buying panic and hoarding of paper goods that has caused toilet paper to be out of supply.

The shortage of toilet paper has caused people to use substitute products such as napkins, paper towels and wipes that are not a substitute for toilet paper from a plumbing perspective.

Let's take a quick look at the anatomy of a toilet drain pipe. When a toilet is flushed, the water and debris flows down a drain pipe that is generally about four inches in



A 4-inch pipe loses capacity because of corrosion and debris.

diameter. The type of drain pipe material commonly used in older homes and buildings is cast iron. There are other, newer types of drain pipe material in use, such as clay, ABS and PVC, but in this discussion we're talking about cast iron piping. Cast iron corrodes from the insides of the pipe, and corrosion may lead to cracks, bumps, ridges where debris that is flushed down the toilet can get caught. Imagine taking a four-inch piece of pipe and stuffing down crumbled pieces of paper towels. You will soon see that the pipe is going to get filled up in very short order.

Cast iron pipes historically last on an average between 35-40 years. Over many years of use, sludge and debris build up and stick to the insides of the pipe. This buildup causes the original 4-inch clear diameter of the pipe to gradually turn into a 2-inch or less rough diameter pipe. The 2-inch loss in diameter is due to blockage as a result of the debris clinging to the insides of the pipe. Over time the pipe diameter gets smaller and smaller, resulting in slow draining, and eventually a backup and flooding situation. In addition, toilets today are a low-flow type that requires less water as compared to the older toilets. So now you have a situation where there is less water being used to flush down drain pipe debris.

Also, the kitchen pipe is used to wash grease down and eventually the grease builds up and turns into what is called a fatberg.

The reason why only toilet paper should be flushed down the toilet is based on the principle of biodegradable factors.

Toilet paper is made to biodegrade fast. Other products not so fast, and thus remain stuck in the drain pipe causing

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backups. The stronger the material, the longer the material stays in the plumbing system. Napkins and paper towels are much stronger than toilet paper, thus take longer to break down. Wipes are the worse culprit—almost like flushing a cloth baby diaper down the toilet.

Why are wipes bad for your home or building's drain pipes? The answer lies in the various components or substrates that the product is made from. Substrates are materials used to manufacture wipes. They are not secret ingredients. Specific materials used to manufacture wipes include cotton, viscose, plastic resins such as polyester (plastic fibers), polypropylene and polyethylene, rayon fibers and wood pulp. The materials used in baby wipes is a non-woven fabric similar to the type used to make disposable diapers and dryer sheets.

Items that should not be flushed down the toilet include:

1. Facial tissues, paper tissues (such as Kleenex)
2. Paper napkins
3. Paper towels
4. Wipes (commonly called wipes, wet wipes, clean wipes, disinfecting wipes, feminine wipes, hand sanitizing wipes, personal wipes, cleaning wipes, moist towelettes, etc.)
5. Disposable wipes
6. Disposable diapers (baby and adult)
7. Feminine products
8. Dryer sheets

The terms disposable or flushable wipes are misleading. They should not be flushed down the toilet. They may eventually biodegrade, but your drain piping system may not wait that long before clogging up.

The U.S. Composting Council has stated that a leading paper towel product biodegrades in 60 days or less. Your plumbing drain system is not going to wait 60 days or less, and there is a chance that you will experience a back-up before that time.

Multi-story condominium and apartment buildings are especially at risk of drain pipe flooding due to the number of floors in the building. The situation is bad, as raw sewage would end up flooding adjacent units and travelling multiple floors down the building. Not only will you have biohazard waste but there will be secondary health and safety issues due to mold growth as a result of the flooding.

A survey of 10 plumbing contractors resulted in all of them urging the public not to flush anything down the toilet except toilet paper. Keep in mind that toilets are not trash cans. Do not flush down the wrong materials.

Please remember my simple message: Save your pipe, don't flush that wipe. ❖

Lance Luke is the owner of Construction Management Inspection LLC, and has been providing building inspection and construction management services for the past 40 years. Reach him at www.hawaiibuildingexpert.com or www.lanceluke.com or his blog at <http://building.expert>.

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