

# Norovirus: A New Circulating Strain

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## Introduction

You have probably heard it around the office, “it’s that time of year!” Noroviruses are a group of viruses that cause gastroenteritis and although transmitted year-round, norovirus activity is more common during the winter months. Norovirus is sometimes incorrectly referred to as the “stomach flu”, but it is not related to the flu (influenza), which is a respiratory virus. Norovirus illness usually begins 12–48 hours after exposure and lasts 1-3 days. Symptoms can include nausea, vomiting, diarrhea, and abdominal cramps. A low-grade fever, chills, headache, muscle aches, and fatigue may also be present. Noroviruses spread easily from person-to-person and is the leading cause of gastroenteritis and foodborne illness in the United States. The virus is found in the stool and vomit of infected people. People can become infected in several ways, including eating food or drinking beverages that are contaminated by infected food handlers, touching surfaces or objects contaminated with norovirus or having direct contact with another person who is infected and then touching their mouth before handwashing. Frequent handwashing with warm water and soap for at least 20 seconds is highly encouraged since alcohol-based hand sanitizers are NOT effective against the virus. Most household cleaners are ineffective against norovirus; a diluted bleach solution or [EPA approved product](#) is the most reliable means of disinfection. Norovirus can survive on surfaces for many days unless disinfected properly. Please see the [MDCH Guidelines for Environmental Cleaning and Disinfection of Norovirus](#) for more information.

## Recent History

Since the mid-1990s, the majority of viral gastroenteritis associated with norovirus has been associated with GII.4 Sydney or GII.4 New Orleans strains. Over the past 10 years, new GII.4 strains have replaced previously predominant strains every 24-36 months. These replacement events are sometimes associated with an increase in outbreak reports. CalciNet, the national norovirus outbreak laboratory surveillance network in the United States, launched in 2009 to collect information on norovirus strains. Participating public health laboratories submit data including genetic sequences. Using this database, currently circulating strains can be monitored and newly emerging strains can be identified.

## New Strain

In 2014–15, a new strain of norovirus, GII.17b Kawasaki, emerged in Asia and replaced the previous pandemic GII.4 norovirus strain. Although responsible for a majority of gastroenteritis in Asia, it was only detected sporadically elsewhere at that time. Recent reports indicate that this new strain has been detected in Europe and the United States.

## Michigan Impact

All outbreaks, including outbreaks associated with norovirus-like illness, are reportable in Michigan. In addition, MDHHS participates in CalciNet and in late 2015, two Michigan outbreaks tested positive for the new GII.17b Kawasaki strain. One outbreak was associated with a catered event and another was identified in a healthcare facility. These outbreaks were not otherwise remarkable in terms of attack rate or severity. Twenty outbreaks of norovirus or norovirus-like illness were reported to the Michigan

Department of Health and Human Services (MDHHS) in January 2016, which is similar to the number reported this time last year. For 2016 outbreaks where specimens were received for testing (n=4), Michigan has seen both GI and GII strains with the majority being GII.4\_untypeable. As new strains can be associated with an increase in acute viral gastroenteritis (AGE) activity, MDHHS is monitoring closely. MDHHS Bureau of Laboratories will test 3–6 stool samples for outbreak investigations free of charge. Bureau of Epidemiology must approve testing. Please work with your local health departments to report an outbreak and arrange testing or contact the MDHHS Communicable Disease Division at 517-335-8165.