

Hand Hygiene

Living Free

BY TORI WHITACRE MARTONICZ

Hey! I am living free! A free-living organism, that is. I am famous for being the first free-living organism to have my entire genome sequenced, even though I am not common in the United States. When I do make an appearance, I am not shy. Richard F. J. Pfeiffer first described me in 1892 during an influenza pandemic, when he believed I was the microbe that caused the sickness.

I can live in an individual's nose and throat, and I usually don't cause any problems. Sometimes I travel to other parts of the body and cause infection, and I can cause a wide range of localized and invasive types of infections, ranging from mild to serious. Some infections are considered "invasive," which means I have invaded areas that normally do not have germs. That is when I cause the most serious types of infections. Those infections almost always require treatment in a hospital and sometimes cause death. The most common types of invasive disease I cause are pneumonia, bloodstream infection, meningitis, epiglottitis, and cellulitis. Infectious arthritis is also possible.

The populations I like to infect most are unimmunized children under 5 years, adults 65 years or older, Native North Americans, and Alaska Natives Peoples. Other favorites are individuals with certain medical conditions, including those with sickle cell disease, HIV infection, asplenia, and antibody and complement

deficiency syndromes. Patients with cancer requiring treatment with chemotherapy, radiation therapy, or bone marrow stem cell transplant are also at high risk for infection from me.

Breastfeeding by vaccinated mothers protects babies younger than 6 months. Although it is still not known how long it takes after I enter an individual's body for that person to become sick, experts believe it could take only a few days before symptoms begin to appear.

Fortunately for you, effective vaccines for me have been around since the early 1990s. The vaccine is recommended for children under 5 years and is combined with other vaccines into 1 injection as the World Health Organization recommends.

I spread to other individuals through the respiratory droplets I travel in from coughing or sneezing. Individuals around them can get sick if they breathe in those droplets, especially if they are in one of the at-risk categories. I can hide in noses and throats, and when the individual sneezes or coughs, I can make other people sick, even if the person I am in is not showing any symptoms. Humans are the only known reservoir for me.

The initial symptom that I produce is an upper respiratory tract infection, usually with a low-grade fever. Then,

To discover who I am, visit [InfectionControlToday.com/view/nov-2022-bug-month](https://www.infectioncontroltoday.com/view/nov-2022-bug-month)

within a few days, the infection may move to the lower respiratory tract with what seems like a wheezy bronchitis. Sputum, often gray or creamy in color, may be difficult to expectorate, and the cough may last for weeks if it is not properly treated. I can cause respiratory tract infections including recurrent otitis media.

Doctors test for me most commonly by a blood or spinal fluid sample, then the patient is given antibiotics to get rid of the infections I gave them. Even with proper treatment, some of the infections I can cause result in long-term issues, such as limb loss, brain damage, or hearing loss, and even death.

Other symptoms that an infection from me can lead to include chest pain, cough, sweating, muscle pain or aches, excessive tiredness, shortness of breath or difficulty breathing, headache, and fever and chills. Diarrhea, anxiety, nausea with or without vomiting, belly pain, shortness of breath or difficulty breathing, altered mental status, sudden onset of stiff neck, and photophobia are also possible.

Haemophilus influenzae □

