Hand Washing After Contact with Beach Sand May Prevent Stomach Aches

By washing your hands after digging in beach sand, you could greatly reduce your risk of ingesting bacteria that could make you sick. In new research, scientists have determined that, although beach sand is a potential source of bacteria and viruses, hand rinsing may effectively reduce exposure to microbes that cause gastrointestinal illnesses.

In recent years, scientists have discovered that concentrations of E. coli bacteria in beach sand are often much higher than those in beach water. E. coli is an indicator of recent sewage contamination and if it is present, pathogens harmful to human health are also likely present. The origin of these bacteria is often unknown. They can persist throughout the swimming season, remaining a potential contamination source to beach visitors.

Follow-up research at beaches around the nation by many scientists has resulted in similar findings, although the amount of bacteria in sand varies depending on the beach. Although beach water is monitored for E. coli as mandated in the Beaches Environmental Assessment and Coastal Health Act (BEACH Act 2000), beach sand is not currently monitored for contamination.

Recent analysis of seven beaches across the nation showed that beachgoers digging in sand were more likely to develop gastrointestinal illness after a day at the beach compared to those not digging in sand. The association with these illnesses was even stronger for individuals who reported being partially covered up in sand. Because children played in the sand more frequently and were more likely to get sand in their mouths, they were more likely to develop gastrointestinal illness after a day at the beach.

Simply rinsing hands may help reduce risk, but a good scrubbing is the best way to avoid illness.

In laboratory experiments, scientists determined that submerging one's hands four times in clean water removed more than 99% of the E. coli and associated viruses from the hands.