

Swim diapers may not keep pool water clean

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Swimming is good, clean summer fun for small children—but University of Florida experts caution that swim diapers won't necessarily keep the water clean, and that could spell trouble if sick kids go in the pool.

A common illness called Norovirus infection can cause vomiting, abdominal cramps and diarrhea. And for children suffering from such an infection that last symptom can render swim diapers ineffective, said Fred Southwick, a professor and chief of the infectious disease division at UF's College of Medicine.

Noroviruses are shed in bodily fluids, and if released into a pool could be transmitted to other children if they ingest water or even touch their mouths with wet hands, he said. Swim diapers are designed to hold solid waste but may not stop diarrhea from leaking out.

“I would not count on the supposedly watertight diapers because I don't think they're really that effective,” Southwick said.

U.S. Centers for Disease Control and Prevention officials say no swim diapers are leakproof and that no manufacturer claims its products prevent diarrhea leakage. CDC devoted a page to the topic: www.cdc.gov/healthyswimming/swim_diapers.htm .

Children with diarrhea shouldn't be allowed in pools, regardless of their swimwear, Southwick said.

Noroviruses, previously known as Norwalk-like viruses, cause

gastroenteritis, inflammation of the stomach and large intestine. Symptoms often begin suddenly and can last 24 to 60 hours.

CDC estimates that Norovirus infections cause 23 million gastroenteritis cases in the United States each year. A 1999 French study showed that 14 percent of children under 3 hospitalized for gastroenteritis had Norovirus infections.

Though the illness can strike people of any age, young children are especially vulnerable to dehydration caused by diarrhea and vomiting, Southwick said. Sports drinks with sodium and potassium may help replace fluids lost in mild cases. But if a child can't keep the beverage down, intravenous fluid replacement may be necessary.

Noroviruses are a particular concern in pools because they often are resistant to chlorine concentrations found in swimming pools, he said.

Many parents fill wading pools with a garden hose, using tap water that contains less chlorine than is used to maintain larger pools, said food safety expert Keith Schneider, an associate professor with UF's Institute of Food and Agricultural Sciences.

"I do not think tap water has enough residual chlorine levels to maintain a high enough chlorine level to be efficacious against most pathogens in that type of environment," Schneider said.

Adding chlorine to a wading pool isn't a good idea, either, because in such a small body of water it would be difficult to maintain the correct level of the chemical.

"I think one of the best preventative measures is to not let the pathogens in the pool in the first place," Schneider said. "One sick kid can make a lot of sick kids."

At least one swim diaper manufacturer agrees. Patti Gilmer, president and founder of Future Products Corporation in Alto, Ga., which markets the Swim-sters® brand, said swim diapers can't take the place of careful supervision.

Young children should be given frequent bathroom breaks, and any child who appears to have defecated while in the pool should be removed immediately, Gilmer said. Recently toilet-trained tots may be at risk for accidents because the fun of playing distracts them.

Gilmer said her company includes information about safety precautions and proper use of swim diapers on its packaging and company Web site.

“You don't want a parent to think ‘I can put my child in the water and they're safe because every child's got a swim diaper on,’” she said.

“You'd have to put kids in a bubble in order to completely protect the water.”

Still, it's better to use a swim diaper than nothing at all, Gilmer said. University of Georgia researchers tested the company's swim diapers and found they significantly reduced the amount of fecal bacteria entering pool water, even with diarrhea.

Source: UF

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