**Clostridium difficile in Sandboxes**

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**In the Literature**  

**FROM THE PAGE …**

_Clostridium difficile_ is an anaerobic bacterium and an important cause of disease in humans and some animal species. _C difficile_ can produce hardy spores that can survive for years in the environment—and as more environments are studied, it becomes more clear how widely this bacterium is distributed.

In this study, researchers visited public playgrounds in Madrid, Spain, and collected sand samples from 20 pairs of sandboxes for children and for dogs. _C difficile_ was isolated from 52.5% of samples—from 12 of 20 (60%) samples from sandboxes for dogs and from 9 of 20 (45%) of samples from sandboxes for children. Of the _C difficile_ isolates tested, 40% were strains that carry toxin genes and can thus cause disease; most of those were types commonly found in humans and animals.

Although the results were not surprising, this study provided evidence that _C difficile_ is a ubiquitous organism that is present in food, water, and many animal species. How _C difficile_ got into the sand is hard to determine because it could have come from humans, dogs, or other animals. This study highlighted the fact that any fecal-origin bug can be widely disseminated in places where multiple individuals of any species congregate.
From a patient-care perspective, this does not mean dogs should not be taken to parks. Exposure to myriad microorganisms is unavoidable. Further, the role of *C. difficile* in canine diarrhea is unclear.

Human health risks are similarly unclear and likely quite low. Sandboxes have been implicated in outbreaks of various diseases,¹²,¹³ and *C. difficile* is probably low on the list of important sandbox-associated pathogens. However, this study provided another reason to follow basic practices (eg, hand hygiene), to prevent children from putting sand or sandy objects in their mouths, and to cover sandboxes that are not in use to keep animals out.

... TO YOUR PATIENTS

Key pearls to put into practice:

1. *C. difficile* is a ubiquitous organism with an unclear role in canine diarrhea.

2. Organisms of fecal origin may be widely disseminated in places where animals congregate; however, this does not mean that dogs owners should avoid taking their pets to parks.

3. There are a number of important sandbox-associated pathogens. Basic hygiene is important.

References


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