

Health Hazards of Petting Zoos

Petting zoos in the United States and elsewhere have been responsible for sickening visitors—most of them children. Petting zoos are hotbeds of serious pathogens, including *E. coli* and salmonella bacteria. Those who come into contact with *E. coli* can develop bloody diarrhea, anemia, or neurological impairments such as seizures or strokes. According to the Centers for Disease Control and Prevention (CDC), acute kidney failure can occur and dialysis and transfusions are sometimes necessary. Experts warn that infections can spread through direct or even indirect animal contact. The area surrounding an animal's cage can be teeming with bacteria, and children can even bring bacteria home on their clothing. Hand washing does nothing to prevent the spread of *E. coli* by inhalation.

September 2019/Minnesota: At least 11 visitors to the Minnesota State Fair contracted *E. coli* infections, and investigators concluded that contact with animals in the Miracle of Birth Center was the cause. Six of the victims--ranging in age from two to 43--were hospitalized, and one suffered hemolytic uremic syndrome, a severe complication that affects the blood and kidneys. Not all of them had contact with the animals, but an epidemiologist with the state department of health said: "There's been all kinds of outbreaks where people touched a contaminated surface like a fence rail or the bleachers. These germs have a way of making their way around a building."

September 2019/California: The California Department of Public Health and the California Department of Food and Agriculture issued a warning urging visitors attending fairs to practice good hygiene when visiting farmed animal exhibits, noting that direct and indirect contact with the animals could put individuals at risk of developing Shiga-toxin producing *E. coli* and other infections.



July 2019: Michigan officials identified pigs at the Fowlerville Family Fair who tested positive for swine flu (influenza A). The department of health reached out to pig exhibitors, their families, and attendees who visited the swine barn at the fair to notify them of possible exposure to infected pigs. The department also alerted healthcare providers in the area to watch for patients with respiratory symptoms who report exposure to swine or who visited the fair. Swine flu can spread quickly between pigs and, while rare, can pass to humans through droplets in the air when sick pigs cough or sneeze.

June 2019: A 2-year-old boy died from an *E. coli* infection and 10 other children fell ill with the disease after visiting the petting zoo at the San Diego County Fair. Three were hospitalized.

2019: Missouri health officials opened an investigation into five cases of *E. coli* in visitors to Grant's Farm in St. Louis and issued a recommendation to remind patrons of the importance of washing their hands after having direct contact with animals.

2019: New research presented at the European Congress of Clinical Microbiology & Infectious Diseases shows that petting zoos can create a diverse reservoir of multidrug-resistant bacteria, which could cause highly virulent drug-resistant pathogens to be passed on to visitors.

2019: An outbreak of chronic wasting disease—which causes severe brain damage leading to death and has no cure—is spreading among captive deer, elk, and reindeer, including those who are transported around the country for petting zoos and Christmas-themed farms. While there has been no direct evidence of the disease in humans, in a paper published in the journal *Emerging Infectious Diseases*, researchers from Canada and Scotland showed, via an experiment in a petri dish, that prions from sick animals can infect human cells.

December 2018: A mother contacted PETA to report that a week after visiting a petting zoo at the Sonoma TrainTown Railroad amusement park in Sonoma, California, her 2-year-old daughter was diagnosed with *E. coli* exposure. The girl died after suffering a stroke caused by hemolytic uremic syndrome (HUS) shortly afterward. HUS can cause acute kidney failure.

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2018: Utah's health department issued a warning about hand washing after 20 people were sickened with *E. coli*, including six who were hospitalized. While the source of the infections was not identified, many people who got sick had visited corn mazes, farms and petting zoos.

July 2018: Several people were sickened with the flu after an interaction with an infected pig at the California Mid-State Fair.

April 2018: Rhode Island officials issued a quarantine of the Simmons Farm petting zoo after three visitors who attended "pet and cuddle" events apparently contracted cryptosporidiosis, a diarrheal disease, from the goats there.

July 2017: A 3-year-old Minnesota girl **died** after contracting *E. coli*, and her 5-year-old brother went into kidney failure, almost dying. He had to receive blood transfusions and undergo dialysis. Health officials were unable to determine the source of the bacteria, but both children had recently visited a local petting zoo.

2016: Thirteen people became ill, including several children who had to be hospitalized, after contracting *E. coli* at the Bishop's Pumpkin Farm petting zoo in California.

January 2017: A 5-year-old Texas boy underwent dialysis and was hospitalized for nearly four weeks, including several days in the intensive care unit, after contracting *E. coli*. His brother was also sickened and hospitalized. The boys' mother said their doctors believe that the children were contaminated while the family was visiting a petting zoo.

August 2017: A pig at a petting zoo in British Columbia, Canada, tested positive for streptococcus suis, a bacterial infection that can be transferred to humans.

November 2016: A Minnesota family was awarded \$7.5 million after a young girl contracted *E. coli* from a petting zoo at Dehn's Pumpkins three years earlier. The child spent a month recovering from a potentially deadly form of kidney disease that caused her kidneys to shut down and required surgery and nearly constant dialysis.

September 2016: A 2-year-old Indiana boy **died** after contracting *E. coli*, which developed into hemolytic uremic syndrome. While it was never determined where he had contracted the bacteria, the family had been to a petting zoo shortly before he got sick.

October 2016: Eighteen people—16 of them children—became ill with swine flu after visiting the barns housing pigs at agricultural fairs in Michigan and Ohio.

August 2016: The Washington County Public Health Department in Oregon issued warnings about having contact with animals after several people became ill with *E. coli* at the Washington County Fair in Hillsboro.

March 2016: The Connecticut Department of Public Health confirmed 34 cases of *E. coli* linked to a goat farm called Oak Leaf Dairy. The victims ranged between 10 months old and 44 years old and included six adults and 28 children ages 14 and under. Nine people were hospitalized. Three were diagnosed with hemolytic uremic syndrome, a serious illness that affects the kidneys and blood clotting. Most of those sickened had petted goats.

February 2016: The National Zoo in Washington, D.C., closed and quarantined its Kids' Farm after finding *E. coli* in four goats and a cow.

October 2015: A 1-year-old boy died after developing hemolytic uremic syndrome after visiting a petting zoo at a Maine fair. The toddler suffered from massive brain seizures. A second 1-year-old boy was also sickened by the same strain of *E. coli* bacteria.

July 2015: North Dakota health officials were investigating five cases of *E. coli* linked to the Red River Valley Fair. Four of the people infected had to be hospitalized, including one person who was diagnosed with hemolytic uremic syndrome, a dangerous complication of being infected with *E. coli* that can result in kidney failure.



April 2015: Whatcom County, Washington, health officials were trying to track down the source of an *E. coli* outbreak after 32 people became ill, four of whom had to be hospitalized, after visiting a petting zoo. At least one child developed hemolytic uremic syndrome.

August 2014: Minnesota health officials confirmed that the Zerebko Zoo Tran traveling petting zoo was the source of an *E. coli* outbreak that infected 13 people, seven of whom had to be hospitalized. Two of the hospitalized people developed a severe complication that affects kidney function.

October 2013: Three children contracted *E. coli* after visiting a petting zoo at a pumpkin patch in Dayton, Minnesota, called Dehn's Pumpkins. One child was hospitalized with hemolytic uremic syndrome.

October 2013: Kentucky health officials traced the *E. coli* strains from three children who got sick back to Huber's Orchard and Winery, which had a petting zoo. A 5-year-old girl was hospitalized for six days, and one parent told reporters that she believed that the petting zoo was the reason her 2-year-old daughter's kidneys had failed.

October 2012: Health officials confirmed one case of *E. coli* at the Willow Grove Gardens Pumpkin Patch in Longview, Washington. Two children became ill, and one of them was hospitalized for several days.

October 2012: North Carolina health officials say that a 2-year-old child died and more than 100 other people were sickened in an *E. coli* outbreak tied to the Cleveland County Fair. Seven people were hospitalized with kidney problems.

August 2012: The CDC was on alert after at least 165 people—mostly children—became infected with swine flu after touching pigs at fairs.

June 2011: A 2-year-old boy developed blood in his stool after contracting *E. coli* at the Animal Farm petting zoo in Everett, Washington. City officials acknowledged that a total of four people were infected.

August 2010: A Wisconsin toddler was hospitalized with life-threatening kidney failure—and received dialysis and multiple blood transfusions—after she contracted *E. coli*. Health officials believe the girl became sick after visiting a petting zoo at the Fond du Lac County Fair.

August 2012: Canadian health officials issued a public warning telling people to keep their distance from pigs after reports that more than 200 people in the U.S. contracted a relatively new strain of swine flu following contact with pigs at fairgrounds and petting zoos.

June 2010: Lawyers representing 28 victims of a 2009 *E. coli* outbreak at a U.K. petting zoo asked for "substantial" damages in a group legal action. Ninety-three people, mostly young children, were infected, and some suffered from kidney failure.

March 2010: The Big Fresno Fair in California agreed to pay \$2.15 million to settle a case in which a girl was allegedly sickened by *E. coli* after visiting its petting zoo in October 2005. Her family sued, saying the bacteria caused her to have strokes and suffer from kidney failure and left her blind in one eye. The company that supplied wash stations outside the zoo paid an additional \$50,000.

January 2010: The Maryland Department of Health and Mental Hygiene planned to assess about 70 children who visited a petting zoo at the Hard Bargain Farm and may have had contact with a rabid 6-week-old Jersey calf.

September 2009: A 14-month-old girl went into kidney failure and 10 other children and two adults were sickened after allegedly contracting *E. coli* from a petting zoo at the Pacific National Exhibition in Vancouver, Canada. The girl's mother said she had been careful about letting her daughter touch the animals and had cleaned the child's hands afterward.

April 2009: Michigan officials confirmed that a woman tested positive for swine flu. She initially showed signs of the flu after returning from a vacation to Texas, where she had visited a petting zoo.

October 2008: The Beaufort County Health Department in North Carolina investigated several confirmed cases of *E. coli* after two infected children visited a petting zoo at Briley's Farm Market. Officials closed the petting zoo.

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September 2008: A 3-year-old South Dakota boy who contracted *E. coli* was hospitalized for weeks after suffering from hemolytic uremic syndrome. He required ventilation, dialysis, transfusions, and extensive rehabilitation because he couldn't walk and lost his fine-motor skills. The boy's father suspected that the infection came from Hedrick's Exotic Animal Farm traveling zoo, which they had visited shortly before the symptoms began, and state health officials confirmed an investigation of *E. coli* in the area.

May/June 2007: Six children became infected with *E. coli* after visiting a petting zoo at a Florida day camp. A seventh child, a sibling of one of the campers, was also sickened. Two of the children were hospitalized.

October 2006: The parents of a North Carolina girl who suffers from permanent damage to her kidneys and pancreas after allegedly getting sick from *E. coli* at a petting zoo at the state fair in 2004 sued the petting zoo and its owner. The child, then 2, was hospitalized for weeks and is expected to remain diabetic and on insulin for life.

October 2005: Fresno County, California, officials cited The Big Fresno Fair's petting zoo as a possible source of *E. coli* infections contracted by six children. One of them, a 2-year-old, was hospitalized in critical condition and required dialysis.

August 2005: Three people became sick with *E. coli* after visiting the petting zoo at the Clark County Fair in Washington. One person was hospitalized, and all three reported nausea, vomiting, and bloody diarrhea.

July 2005: Two children were hospitalized with *E. coli* infections following a visit to a petting zoo in Arizona. One child came into direct contact with the animals in the petting zoo, and the second child may have touched railings around the enclosures confining the animals.

June 2005: The children's petting zoo at the Toledo Zoo was closed after three animals tested positive for campylobacter, an infectious bacterium that causes gastrointestinal illness.

April 2005: Florida health officials confirmed 30 cases of *E. coli* infection—in 26 children and four adults. Five youngsters went into kidney failure. Investigators determined that the bacteria were spread through contact with infected animals from a company that ran petting zoos at three fairs in Tampa, Orlando, and Plant City. Another 47 suspected cases were under investigation.

October 2004: After visiting the North Carolina State Fair, 108 people were reportedly sickened. Twenty patients were hospitalized, and 15 were diagnosed with hemolytic uremic syndrome. Environmental sampling of the fairgrounds identified extensive *E. coli* contamination at one of two petting zoos.

September 2004: Although vaccinated against it, a horse in the Phoenix Zoo's petting area died from the West Nile virus. A bird at the zoo died from the same cause earlier in the year.

August 2004: Two children had to undergo painful rabies treatment after visiting the Fossil Rim Wildlife Center in Texas—a sheep in its petting zoo had contracted the disease. Health officials said that it can be transmitted through saliva (e.g., when an infected animal licks a person's face or an area where there are fresh wounds or broken skin).

2003: Canadian public health officials determined that 44 confirmed cases of *E. coli* were "most likely caused by contact with the animals" in a local petting zoo.