

Felicia had looked forward to summer camp all year, especially the overnight hikes. A three-day expedition in July was wonderful, but five days after returning to camp, Felicia developed severe abdominal cramps. So did seventeen other campers and two counselors, some of whom had bloody diarrhea, too. Several of the stricken campers were hospitalized, Felicia among them. Although the others improved in a few days and were released, Felicia suffered from a complication, called hemolytic uremic syndrome (HUS). Her urine had turned bloody, and she also had blood abnormalities—severe anemia and lack of platelets.

Camp personnel reported the outbreak to public health officials, who quickly recognized the signs of food poisoning and traced the illness to hamburgers cooked outdoors on the trip. The burgers were served rare, the red meat not hot enough to kill a strain of *Escherichia coli* bacteria that releases a poison called shigatoxin.

Most people who eat meat tainted with *E. coli* toxin become ill, but the damage usually is restricted to the digestive tract, producing cramps and diarrhea for several days. In about 6% of affected people, mostly children, HUS develops because the bloodstream transports the toxin to the kidneys. Here, the toxin destroys cells of the microscopic capillaries that normally filter proteins and blood cells from forming urine. With the filtration compromised, proteins and blood cells, as well as damaged kidney cells, appear in the urine.

HUS is a leading cause of acute renal (kidney) failure, killing 3% to 5% of affected children. Felicia was in the lucky majority. Blood clotted around the sites of her damaged kidney cells, and over a few weeks, new cells formed. Three weeks after the bloody urine began, her urine was once again clear, and she was healthy. ■



Cook that burger! Hemolytic uremic syndrome is a complication of infection by a strain of *E. coli* bacteria that produces shigatoxin. Destruction of the filtering capillaries in the kidney allows proteins and blood cells to enter urine.