

E Coli

E Coli Most E Coli bacteria are relatively harmless. In fact, E Coli is often grown in laboratories for educational and didactic purposes because of its lesser potential for harm when compared to other bacteria. However, one strand of E Coli known as Escherichia coli: 0157:H7 has been known to cause serious illness in human beings since 1982. At that time a serious outbreak of severe diarrhea occurred in the United States with the diarrhea frequently involving bloody stools. Researchers who investigated the problem diarrhea found that it was connected to eating under cooked hamburger meat. Subsequent attacks of this strand of E Coli have also most frequently been associated with the consumption of hamburger meat as well. The most recent of these attacks resulted in the massive recall of Topps Meat hamburger patties in September of 2007, and in October of 2007, the closing of the sixty seven year old business which could not recoup under the weight of the loss and subsequent bad publicity. There are several ways of getting Escherichia coli: 0157:H7 besides eating rare hamburger meat. Other foods that might contain the bacteria are milk or juice that is not pasteurized, alfalfa and bean sprouts, unwashed fruit, spinach and lettuce. Petting zoos are known to harbor the bacteria, and infection might be spread on the ground or through contact on the handrails. Insufficient hygiene when changing baby diapers of children sick with diarrhea from Escherichia coli: 0157:H7 could also spread the disease. Swimming in or drinking water from water sources with sewage drainage can also cause the spread of this form of E Coli.

The usual symptoms of the 0157:H7 strand of E Coli are severe and bloody diarrhea along with stomach cramps. A complication of the illness most frequently seen in children under five and older persons is hemolytic uremic syndrome (hus). Hemolytic uremic syndrome (hus) can cause acute kidney failure. It destroys the red blood cells as well as causing the kidneys to fail. The presence of E Coli can be determined by laboratory tests of stool specimen. At the present time, the identity of this particular bacteria is not always tested for without a specific request in many laboratories. The presence of blood in diarrhea is enough evidence to request further pinpointing of the E Coli, according to the Centers for Disease Control and Prevention website. (<http://www.cdc.gov/ecoli/>) To avoid developing anti-biotic resistant forms of this E Coli strand, treatment does not involve antibiotics. If the disease is complicated by hus, supportive measures such as dialysis and treatment in an intensive care unit may be required. The death rate for hus when it is treated is estimated as being between three percent and five percent at this time. The CDC website indicated that changing the way cattle meat is processed significantly decreased the amount of this form of E Coli found currently in the market – at least until recently. Some suggestions by the CDC for lowering the risk of Escherichia coli: 0157:H7 include thoroughly cooking ground hamburger meat, sending a hamburger back to be cooked more thoroughly if given a rare hamburger in a restaurant, keeping cooked meat in a separate plate from that the raw hamburger patties were on, washing all utensils involved in preparing raw meat, drinking only pasteurized juices and milk, running water thoroughly over raw fruits and vegetables, avoiding swallowing water when swimming, drink only chlorinated municipal drinking water, and washing of hands after changing baby diapers.

Source “Escherichia coli: 0157:H7” article on CDC website URL:
http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm#What%20is%20Escherichia%20coli%200157:H7
October 5th 2007 press release of Topps Meat Company URL:
http://www.toppsmeat.com/Final_10_5_07_Topps_Release.pdf