



E-COLI Some Basics

Escherichia coli has been recognized as a common place microorganism found in the intestinal tract of man and other warm blooded animals. This species has served as an indicator for fecal contamination in water, food and so on. Now E coli 0157:H7 has emerged in the last decade to gain our respect as a foodborne pathogen. The bacterium is a facultative anaerobe which means it can survive in the presence or absence of oxygen. It is Gram negative bacterium which is not fastidious in it's nutritional requirements.

The organism causes hemolytic uremic syndrome (HUS). Symptoms include severe stomach pain, fever in roughly one-third of the cases and severe diarrhea for at least two days which can lead to bloody diarrhea. The symptoms generally occur within three days of ingestion which is the time needed for the toxin to produce symptoms in the patient. People at risk for serious illness are children under the age of 10 years and elderly people. There are serious complications that can arise if the symptoms go untreated. The disease can be spread as long as the patient is shedding the organism in the stool.

"The microbe was thought to be typically transmitted by food through ingestion of improperly cooked meat. More recently the pathogen has been found to be spread through fruits and vegetables as the organism is in fertilizer used in food production accompanied by the food not being properly washed prior to consuming. Also, bacteria on hands of daycare providers after diapering can be spread if thorough hand washing has not occurred."

The pathogenic cycle can be stopped with proper cooking of meat or poultry, washing raw foods properly prior to consumption, thorough hand washing during the cooking process and in child or elderly care settings. Using antimicrobial products such as hard surface disinfectants and sanitizers as well as antimicrobial hand soaps will aid in breaking the pathogenic cycle.