



MICROBIOLOGICAL ASPECTS #2

Escherichia Coli –pathogenic (disease causing) Strains.

Escherichia coli (the bacterium) are present in large numbers in the normal intestinal flora of humans and animals where it generally causes no harm. However, in other parts of the body, pathogenic strains of *E.coli* can cause serious diseases, such as urinary tract infections, bacteraemia and meningitis, a limited number of enteropathogenic strains can cause acute diarrhea.

Source and Occurrence

Enteropathogenic *E.coli* is an enteric (of the intestine) organism, and humans are the major reservoir. Livestock, such as cattle and sheep and, to a lesser extent, goats, pigs and chickens are major sources of this strain. Other *E.coli* strains have been associated with raw vegetables such as bean sprouts. This pathogen has been detected in variety of water environments.

Routes of Exposure

Infection is associated with person-to-person transmission, contact with animals, food and consumption of contaminated water. Person-to-person transmission is prevalent in communities where there is close contact between individuals, such as in nursing homes and day care centres.

Significance in Drinking Water

Waterborne transmission of pathogenic *E.coli* has been well documented for recreational waters and contaminated drinking water. Rand Water have control measures in place to manage potential risk from enteropathogenic *E.coli* including protection of the raw water supplies from animal and human waste, as well as adequate treatment and protection of drinking water during distribution. Rand Water purifies the water by means of a conventional purification process, resulting in water that is safe to drink. Your tap water will satisfy your daily requirements, and meets the SANS 0241 water quality specifications.

Visit www.reservior.co.za for further information on water quality in your area.

