

Get fever with new technology to identify E-coli bacteria

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According to general information from the Internet, **Escherichia coli** (often abbreviated as E. coli), also known as **colon bacteria**, is one of the main bacteria that parasites in the intestinal tract of warm-blooded animals (including birds and mammals). This bacterium is essential in the digestion of food and is a component of intestinal colonies. The presence of E. coli in groundwater is a common indicator for fecal contamination. E. coli belongs to the Enterobacteriaceae family and is often used as a model organism for bacteriological studies.

In fact, most E.coli bacteria have no significant effect on health except some that can cause diarrhea and depending on the locality, the age of the patient and the above bacteria have other effects. together.

E-coli new strain

Since the 80s of the last century, it has been discovered that the new strain of E. coli stands for E.coli O157: H7. This is the most common strain of E.coli that causes diarrhea. In some patients, this bacteria can cause blood disorders and kidney failure, even leading to death. With the recent epidemic in Europe, the bacteria considered the culprit are mutations of two different strains of E.coli. This is a new strain of bacteria that has properties that make them far more dangerous than the hundreds of E.coli strains in human intestines.

What causes E. coli infection?

We can be infected with E. coli through contact or exposure to human feces and animal manure, including poultry. 'Exposure' here means drinking water or eating food contaminated with feces.



Photo source: Internet.

Through water, human and animal faeces contaminated with E. coli can occasionally penetrate into ponds, lakes, rivers, or generally water sources. We can be infected with E. coli through bathing the water, but the infected water uses the water that has not been chlorinated.

In the United States, more than millions of people are infected with E-coli diseases each year, and there are up to 1,000 deaths.

In response to this situation, a group of Pittsburgh State University researchers have developed an extremely new biotechnology device that helps counter the E-coli bacteria in water.

This device is called **Nanosensor hybrid** . Nanosensor hybrid is essentially a resonant biotechnology device between magnetism and fluorescence sensors. Operating in a laboratory environment with E-coli-contaminated water, it is not expected that Nanosensor hybrids will be able to sense the different toxic concentrations of water caused by E-coli bacteria, and also identify bacteria. E-coli are even new O157: H7 E-coli in less than an hour.

Not only that, according to the expert group, this device also has the ability to identify many other **toxic bacteria** in the water environment.

This study has just been published in the Journal of ACS Infectious Diseases.

Huynh Dung (According to Medicalnewstoday)

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