



ADDRESSING

E. coli Contamination

IN MUNICIPAL WATER SYSTEMS
WITH OUR PATHEX FILTER MEDIA

INTRODUCTION

The presence of *Escherichia coli* (*E. coli*) in municipal water systems poses a significant public health risk. This paper examines the problem and challenges of *E. coli* contamination in water supplies, discusses its health implications, and introduces A.S. Filtration's innovative Pathex Anticicrobial Filter Media as a technology to mitigate this issue.

Access to clean and safe drinking water is a fundamental human right. Municipal water systems play a crucial role in delivering potable water to communities. However, the presence of bacteria in these systems remains a persistent and concerning problem. *E. coli* contamination can lead to severe health issues when consumed, making it essential to develop effective filtration solutions.

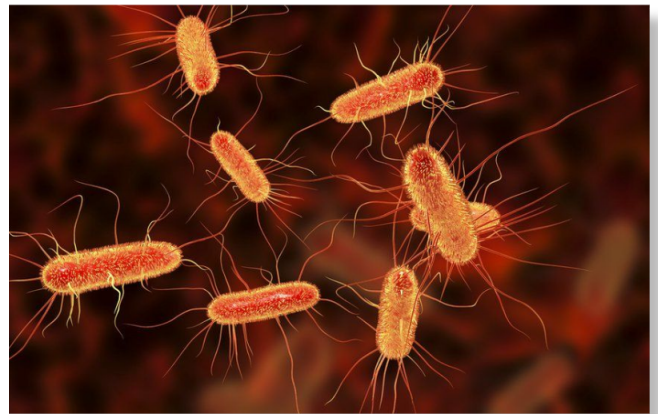
THE PROBLEM OF E. COLI CONTAMINATION

E. coli is a group of bacteria commonly found in the intestines of humans and animals. While most strains are harmless, some can cause gastrointestinal illnesses when ingested through contaminated water.

Symptoms of *E. coli* infection include diarrhea, abdominal pain, and, in severe cases, kidney failure and death. Vulnerable

populations, such as children and the elderly, are particularly at risk.

E. coli contamination in municipal water systems can result from various sources, including agricultural runoff, inadequate wastewater treatment, and aged infrastructure. Climate change and extreme weather events can also exacerbate contamination by causing overflows and water quality fluctuations.



In optimum conditions, *Escherichia coli* (*E. coli*) can divide every 20-30 minutes.

THE A.S. FILTRATION SOLUTION

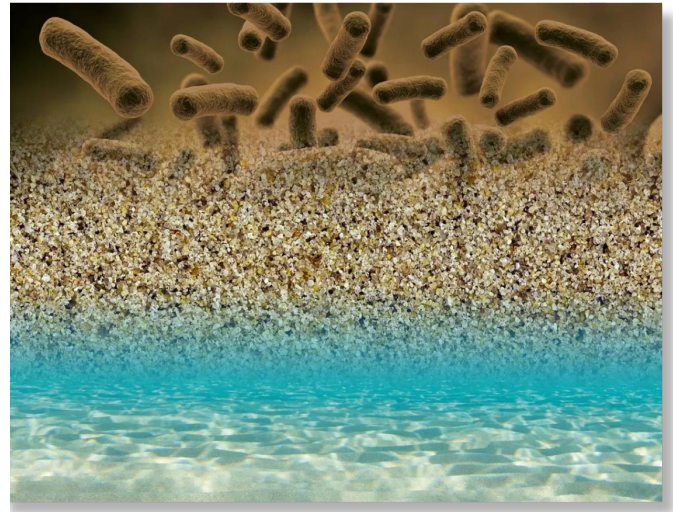
A.S. Filtration has developed the **Pathex® Filter**, a cutting-edge filtration system designed to address *E. coli* contamination in municipal water systems. The Pathex Filter utilizes advanced filtration technologies to remove not only *E. coli* but also other harmful microorganisms and contaminants, ensuring safe and reliable drinking water.

FEATURES OF THE PATHEX FILTER

- **High-Efficiency Filtration:** The Pathex Filter employs a multi-stage filtration process that effectively captures and removes E. coli and other pathogens from the water supply. Conversely, carbon filters solely *capture* contaminants without the ability to actively kill the harmful microorganisms.
- **Real-time Monitoring:** A.S. Filtration's system includes real-time monitoring and alerting capabilities, enabling quick responses to any deviations in water quality.
- **Sustainable Design:** The Pathex Filter is designed with sustainability in mind, minimizing waste and energy consumption while maximizing performance.
- **Scalability:** The system can be tailored to fit the specific needs of municipalities, making it adaptable to both small and large-scale water treatment facilities.

BENEFITS OF THE PATHEX FILTER

- **Improved Water Quality:** By effectively removing E. coli and other contaminants, the Pathex Filter ensures that municipal water systems provide safe and clean drinking water to the community.
- **Public Health Protection:** Implementing the Pathex Filter reduces the risk of waterborne E. coli infections, safeguarding public health as well as reducing the burden on healthcare systems.
- **Environmental Sustainability:** The sustainable design of the Pathex Filter minimizes its environmental footprint,



Pathex does its job without chemicals or harmful byproducts.

aligning with global efforts to reduce the impact of water treatment processes on the environment. And you can feel good about not having to use, handle, or store harmful chemicals.

THE BOTTOM LINE

The presence of E. coli bacteria in municipal water systems is a pressing public health concern. A.S. Filtration's Pathex Filter offers an innovative solution to mitigate E. coli contamination, ensuring the delivery of safe and clean drinking water to communities.

As the threat of waterborne illnesses persists, the adoption of advanced filtration technologies like the Pathex Filter becomes increasingly vital for safeguarding public health and the environment.

About us | A.S. Filtration was born from a small group of environmental engineers and scientists sharing the same ideal — to provide high performance and cost-effective water treatment solutions to all who need it.



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