

Report answers questions about *E. coli*: The good, the bad and the deadly

November 15 2011

It has been the cause of infamous international foodborne disease outbreaks and yet it is the most studied bacterium in science, an essential part of the human digestive tract, and a backbone of the biotech industry. To enhance public understanding of the bacterium *Escherichia coli*, the American Academy of Microbiology brought together the nation's leading experts to consider and answer some of the most frequently asked questions about this multifaceted microorganism.

"The story of *E. coli*, what we are trying to tell in this [report](#), is really much larger than just its role as a pathogen. It's been such a large component of research for so long – so much of what we know about biology has come from studying *E. coli*," says Michael Doyle of the University of Georgia Center for Food Safety, a member of the steering committee.

The report, entitled FAQ – *E.coli*: Good, Bad and Deadly is based on the deliberations of 13 of the nation's leading experts who met for one day in September 2011 to develop clear answers to frequently asked questions regarding the role of *E. coli* in scientific research, human health and foodborne disease.

Some of the questions considered by the report are:

- What is *E. coli* anyway?
- How has *E. coli* contributed to our understanding of biology?

- What does naturally occurring *E. coli* in our GI tract do?
- What is the difference between "good" *E. coli* that inhabits our GI tract and the "bad" *E. coli* that makes us sick?
- Why does *E. coli* make some people sick and not others?
- How does *E. coli* become pathogenic?
- How does our food become contaminated with *E. coli*?
- What steps are being taken to protect our food from contamination by pathogenic *E. coli*?
- What types of food are most commonly associated with *E. coli*, and why do there seem to be more cases of contamination recently?

Most answers begin with a simple paragraph summarizing what is known, followed by a more detailed explanation. In addition, spread throughout the report are sidebar boxes discussing issues related to the questions such as a list of Nobel Prizes awarded for work done on *E. coli* and a discussion of toxins created by the bacterium.

FAQ – *E. coli*: Good, Bad and Deadly is the latest offering in a series of reports designed to provide a rapid response to emerging issues. Traditionally Academy reports are based on multi-day colloquia after which the final report can take up to a year to develop. The FAQ series are based on single-day meetings focused on specific questions after which a final report is published in 2-3 months.

"The Academy FAQ reports explain complex microbiological problems in a timely, balanced format that is easily understandable by the public, the media and policy makers," says Stanley Maloy of San Diego State University, who moderated the colloquium.

More information: A PDF of FAQ – *E. coli*: Good, Bad and Deadly can be found online at: bit.ly/aamecolifaq

Provided by American Society for Microbiology

Citation: Report answers questions about E. coli: The good, the bad and the deadly (2011, November 15) retrieved 12 June 2026 from <https://medicalxpress.com/news/2011-11-coli-good-bad-deadly.html>

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