

STEC O157

O157 Shiga-like toxin-producing *E.coli* (O157 STEC) is a Gram-negative foodborne pathogen¹ that can cause severe foodborne disease. A publication by Scallan et al.² in 2011 estimated that 63,153 human foodborne O157 STEC cases, including 20 deaths, occur annually in the US. O157 Shiga-like toxin-producing *E.coli* (O157 STEC) is an enterohemorrhagic strain of the bacterium *Escherichia coli* and a cause of foodborne illness. Infection often leads to hemorrhagic diarrhea, and occasionally to kidney failure, especially in young children and elderly persons. Transmission is via the fecal-oral route, and most illness has been associated with eating undercooked, contaminated ground beef, swimming in or drinking contaminated water, and eating contaminated vegetables.¹

Key laboratories studying various aspects of foodborne O157 STEC in the US and Canada include:

Chobi DebRoy, Penn State University, USA

Guy Loneragan, Texas Tech University, USA

Mindi Brashears, Texas Tech University, USA

John Sofos, Colorado State University, USA

Harshavardhan Thippareddi, University of Nebraska, USA

Pina Fratamico, USDA-ARS, USA

Jeff LeJeune, The Ohio State University, USA

Meat Animal Research Center, USDA-ARS, USA

Charles Kaspar, University of Wisconsin-Madison, USA

Shannon Manning, Michigan State University, USA

Key laboratories studying various aspects of foodborne O157 STEC in Europe include:

A. Havelaar, Centre for Prevention and Health Services Research, The Netherlands

B. Lindstedt, Department of Foodborne Infections, The Norwegian Institute of Public Health, Norway

Key laboratories studying various aspects of foodborne O157 STEC in South and Latin America include:

Key laboratories studying various aspects of foodborne O157 STEC in Asia and Australia include:

F. Kasuga, National Institute of Health Sciences Biomedical Food Research, Japan

Y. Goto, Miyazaki Prefectural Institute for Public Health and Environment, Japan

Additional resources on foodborne O157 STEC:

A number of key sources on foodborne O157 STEC are available. For a comprehensive overview on foodborne O157 STEC, we suggest the book "[Escherichia coli O157:H7 and Other Shiga Toxin-Producing E. coli Strains](#)". For public health advice on how to reduce the risk of foodborne O157 STEC infections, a number of WWW pages are available from the US CDC, including a factsheet on "[Escherichia coli O157:H7 and other Shiga toxin-producing Escherichia coli \(STEC\)](#)" and also a brief factsheet on "[Shiga toxin-producing E. coli \(STEC\)](#)".

References

¹http://en.wikipedia.org/wiki/Escherichia_coli (see also: http://en.wikipedia.org/wiki/Escherichia_coli_O157:H7)

²Scallan et al. 2011. Emerging Infectious Diseases 17:7-15 PMID:21192848

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