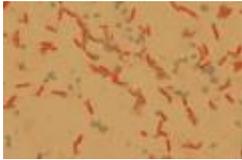
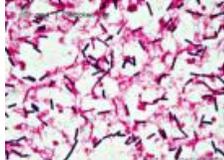
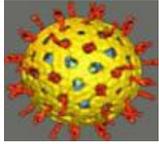
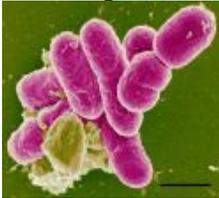
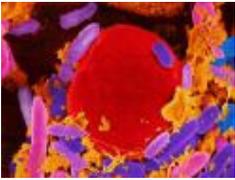
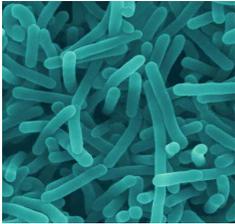


# SYMPTOM PROFILE OF GASTROENTERITIS

Approximate Onset Time to Symptoms	Predominant Symptoms and Illness duration	Associated organism or toxin	Microscopic image of pathogen	Commonly Associated Foods
<b>Upper gastrointestinal tract symptoms (nausea, vomiting) occur first or predominate</b>				
30 mins – 8 hours, usually 2 – 4 hours	Nausea, violent vomiting, retching, diarrhea, abdominal pain, prostration.  Illness duration: 24 – 48 hours	<i>Staphylococcus aureus</i> and its enterotoxins	 <a href="http://www.zdravljeizivot.com">www.zdravljeizivot.com</a>	Unrefrigerated or improperly refrigerated meats, potato and egg salads, cream desserts and pastries.
8-16h (2-4 h vomiting possible)	Vomiting, abdominal cramps, sometimes diarrhea, nausea  Illness duration: up to 24 hours	<i>Bacillus cereus</i>	 <a href="http://www.textbookofbacteriology.net">www.textbookofbacteriology.net</a>	The vomiting-type outbreaks have generally been associated with rice products; however, other starchy foods such as potato, pasta and cheese products have also been implicated. Food mixtures such as sauces, puddings, soups, casseroles, pastries, and salads have frequently been incriminated in food poisoning outbreaks.
<b>Lower gastrointestinal tract (abdominal cramps and diarrhea occur first or are predominate)</b>				
2-36 h mean 6-12 h	Abdominal cramps, diarrhea, putrefactive diarrhea associated with <i>C. perfringens</i> , sometimes nausea and vomiting  Illness duration: 24 – 48 hours	<i>Clostridium perfringens</i> , <i>Bacillus cereus</i>	<i>Clostridium perfringens</i>  <a href="http://www.uni-ulm.de">www.uni-ulm.de</a>	Meat, poultry, gravy, dried or precooked foods. The diarrheal type of Bacillus cereus food poisoning has been associated with a wide variety of foods including meats, milk, vegetables, and fish.
24-48 hours (10-50 hours)	Nausea, vomiting, diarrhea, abdominal pain, myalgia, headache, malaise, low grade fever.  Illness duration: 12-60 hours	Norovirus	 <a href="http://www.extension.iastate.edu">www.extension.iastate.edu</a>	Contaminated shellfish, ready to eat food items contaminated by infectious food handlers (salads, sandwiches, ice, fruit). Can be transmitted from person to person in institutional settings.
24 – 72 hours	Vomiting, watery diarrhea, low grade fever.  Illness duration: 4 – 8 days	Rotavirus	 <a href="http://www.esmas.com">www.esmas.com</a>	Faecally contaminated foods. Ready to eat foods touched by infectious food handlers.

Approximate Onset Time to Symptoms	Predominant Symptoms and Illness duration	Associated organism or toxin	Microscopic image of pathogen	Commonly Associated Foods
<p>12-74 h mean 18-36 h</p>	<p>Abdominal cramps, diarrhea, vomiting, fever, chills, malaise, nausea, headache, possible. Sometimes bloody or mucoid diarrhea.</p> <p>Illness duration: 4-7 days, possibly more <i>Shigella</i> &amp; <i>Salmonella</i></p> <p>5-10 days Enteropathogenic <i>E.coli</i></p> <p>2-10 days <i>Campylobacter</i></p> <p>2-5 days <i>Vibrio parahaemolyticus</i></p>	<p><i>Salmonella species</i>, <i>Shigella</i>, enteropathogenic <i>Escherichia coli</i>, <i>Vibrio parahaemolyticus</i>, <i>Campylobacter jejuni</i></p>	<p><i>Shigella</i></p>  <p><a href="http://www.microscopyconsulting.com">www.microscopyconsulting.com</a></p> <p><i>Campylobacter</i></p>  <p><a href="http://res2.agr.ca">res2.agr.ca</a></p>	<p>Undercooked poultry, raw egg deserts and mayonnaise, sprouts, tahini, unpasteurised milk and contaminated water.</p>
<p>2-10 days</p>	<p>Diarrhea (usually watery), stomach cramps, nausea, slight fever.</p> <p>Illness duration: up to 30 days, with symptoms recurring</p>	<p><i>Cryptosporidium</i></p>	 <p><a href="http://www.microscopyconsulting.com">www.microscopyconsulting.com</a></p>	<p>Any cooked food contaminated by an infectious food handler. Consumption of contaminated water.</p>
<p>1-6 weeks</p>	<p>Mucoid diarrhea (fatty stools), abdominal pain, weight loss.</p>	<p><i>Giardia lamblia</i></p>	 <p><a href="http://www.wadsworth.org">www.wadsworth.org</a></p>	<p>Giardiasis is most frequently associated with the consumption of contaminated water.</p>

Approximate Onset Time to Symptoms	Predominant Symptoms and Illness duration	Associated organism or toxin	Microscopic image of pathogen	Commonly Associated Foods
<b>Neurological symptoms (visual disturbances, vertigo, tingling, paralysis) occur</b>				
1-6 h	Tingling and numbness, gastroenteritis, dizziness, dry mouth, muscular aches, dilated pupils, blurred vision, paralysis	Ciguatera Toxin	 <a href="http://www.visualunlimited.com">www.visualunlimited.com</a>	Marine finfish most commonly implicated in ciguatera fish poisoning include the groupers, barracudas, snappers, jacks, mackerel, and triggerfish. Many other species of warm-water fishes harbour ciguatera toxins. The occurrence of toxic fish is sporadic and not all fish of a given species or from a given locality will be toxic.
12 – 72 hours	Vomiting, diarrhea, vertigo, blurred vision, loss of reflex to light, descending muscle weakness  Illness duration: Variable	<i>Clostridium botulinum</i>	 <a href="http://www.zkea.com">www.zkea.com</a>	Home canned foods with low acid content, improperly canned commercial foods, home canned or fermented fish, herb or infused oils, baked potatoes in aluminium foil, cheese sauces, bottled garlic, foods held warm over a long period of time.
<b>Allergic symptoms (facial flushing, itching) occur</b>				
Less than 1 h	Headache, dizziness, nausea, vomiting, peppery taste, burning of throat, facial swelling and flushing, stomach pain, itching of skin	Histamine (scombroid)		Fishery products that have been implicated in scombroid poisoning include the tunas (e.g., skipjack and yellowfin), mahi mahi, bluefish, sardines, mackerel, amberjack, and abalone.
<b>Generalised infection symptoms (fever, chills, malaise, prostration, aches, swollen lymph nodes) occur</b>				
9 – 48 hours for gastrointestinal symptoms.  2-6 weeks for invasive disease	Fever, muscle aches and nausea or diarrhea. Pregnant women may have a mild flu like illness and infection can lead to premature delivery and still birth/ Elderly or immuno-compromised people may have bacteraemia or meningitis	<i>Listeria monocytogenes</i>	 <a href="http://biology.kenyon.edu">biology.kenyon.edu</a>	Fresh soft cheeses, unpastuerised milk, ready to eat deli meats, ready to eat seafood, hot dogs.

Developed by New South Wales OzFoodNet (June 2006) with assistance from:  
 US Food and Drug Administration [www.fda.gov](http://www.fda.gov)  
 NSW Food Authority [www.foodauthority.nsw.gov.au](http://www.foodauthority.nsw.gov.au)