

DIARRHEA AND DYSENTERY

Greek: “dia” – through; rhea – “flow through”

Greek: “dys” – bad; “enteric” – intestine

Diarrheal Types:

Watery diarrhea, little or no fever

- **Pathogenic:** Viral, Cholera (rice-water stool)
- **Non-pathogenic:** celiac’s disease, lactose intolerance, fructose malabsorption, excessive alcohol

Bloody Stool, fever: (dysentery from Greek: “dys” = bad; “enteric” = intestines):

- **pathogenic** (e.g. *Salmonella*, *Shigella*, *E.coli*)
- **autoimmune** (ulcerative colitis or Crohn’s disease)

Pathogens Types:

Viral—*Norovirus*; *Rotavirus*

Bacterial—*Salmonella*, *E.coli* (EHEC strains), *Shigella*, *Campylobacter*, *Vibrio*, *S. aureus*, *C. difficile*

Protists—*Giardia*, *Entamoeba*

How do Pathogenic Enterotoxins cause diarrhea and/or dysentery?

- **Cholera toxin** causes electrolyte loss of Cl⁻ from intestinal cells. Water follows and the result is watery diarrhea.
- **Shiga toxins** cause damage to the intestinal cells so that they cannot absorb water and they may die. Blood from the underlying mucosal layer may then enter the lumen; hence, bloody diarrhea (technically called dysentery)
- Viral diarrhea results when intestinal cells are infected and sloughed.