

	<b>Bacillus anthracis</b>	<b>Bacillus cereus</b>
Gram reaction	GPR, variable with age	GPR, variable with age
Microscopic morphology	bamboo shaped rods	rods
Macroscopic morphology	"Medusa head" colonies	frosted glass colonies
Hemolysis	gamma	beta
Atmosphere	aerobic or anaerobic	aerobic or anaerobic
Virulence factor	capsule, toxin: Protective Agent (PA)- binding module for EF & LF; Edema Factor (EF)- plus PA causes swelling; Lethal Factor (LF)- plus PA causes death	enterotoxins: Diarrheal Form- meat & poultry; Emetic Form- fried rice
Motility	negative	positive
Catalase	positive	positive
Endospores	positive	positive
Lecithinase	positive, centrally located	positive
Gelatin hydrolysis	negative	positive
Fermentation on salacin	negative	variable
Drug resistance	----	penicillin
"String of pearls" test	positive	negative
Infections	Cutaneous- black eschar, regional lymphangitis, lymphadenopathy, septicemia. Pulmonary- "Woolsorters disease". Gastrointestinal- lesions in GI mucosa, bloody diarrhea, Oropharyngeal Anthrax	food poisoning, eye infections, opportunistic infections