



Gram (+) toxins	
Bacillus Anthracis	1: EF - ↑cAMP → edema 2: LF - protease → cleaves MAPK → necrosis
C. Botulinum	Cleave SNAREs → decreased ACh release
C. Difficile	1: Exotoxin A - Inflammation, cell death 2: Exotoxin B - Actin depolymerization → Pseudomembranous colitis
C. Perfringens	Lecithinase - Damages Phospholipids
C. Tetani	Tetanospasm - inhibit renshaw cell GABA release
Strep Pyogenes	1: Pyogenic - superantigen → Toxic shock 2: M-protein - Rheumatic fever 3: Streptokinase - Break down of fibrin cross-links
Staph Aureus	1: Enterotoxin - Superantigen - GI, vomiting 2: TSST - Superantigen - Th1 activation → Shock
C. Diphtheria	diphtheria toxin - Inhibits EF-2 via Ribosylation