Biofilm is an aggregate of bacteria which are encased in extracellular polymeric substance, or EPS. Biofilm is tolerant to attack by most immune cells and antibiotics.¹

How Does it Form?

Bacteria communicate through electrochemical signaling called quorum sensing. When messaging between bacteria grows strong enough, they begin to behave as a coordinated aggregate. They signal each other to secrete EPS, which creates a biofilm shield around the bacteria.¹

~78% of wounds are infected with bacterial biofilm²

1.7 million US hospital-acquired infections per year involve biofilm, contributing to >500,000 deaths per year³

$94 billion per year estimated cost in US for biofilm infections³

Bacteria in biofilms can become up to 1000 times more resistant to antibiotics than their planktonic counterparts⁴

Biofilm Disrupts Normal Wound Healing

- Resists attack by immune system and antimicrobial agents, including silver¹-⁷
- Confers antibiotic resistance¹-⁷
- Locks the wound bed in a chronic inflammatory state⁵,⁶
- Cannot be visually detected, making debridement difficult¹
- Even after aggressive debridement, biofilm can reform in as little as 24 hours³

V.Dox™ Technology is proven to kill biofilm both in vitro⁶ and in vivo²

- Disrupts quorum sensing
- Prevents biofilm formation
- Disrupts existing biofilm infection
- Restores functional wound closure

References