

BACTERIAL BIOFILMS – A PRIMER

Gary Hodgins

Pharmax **IC**Solutions

What is a Biofilm?

Biofilm: Aggregate of microorganisms in which cells that are frequently embedded within a self-produced matrix of extracellular polymeric substance (EPS) adhere to each other and/or to a surface. ** (IUPAC).



Important Facts

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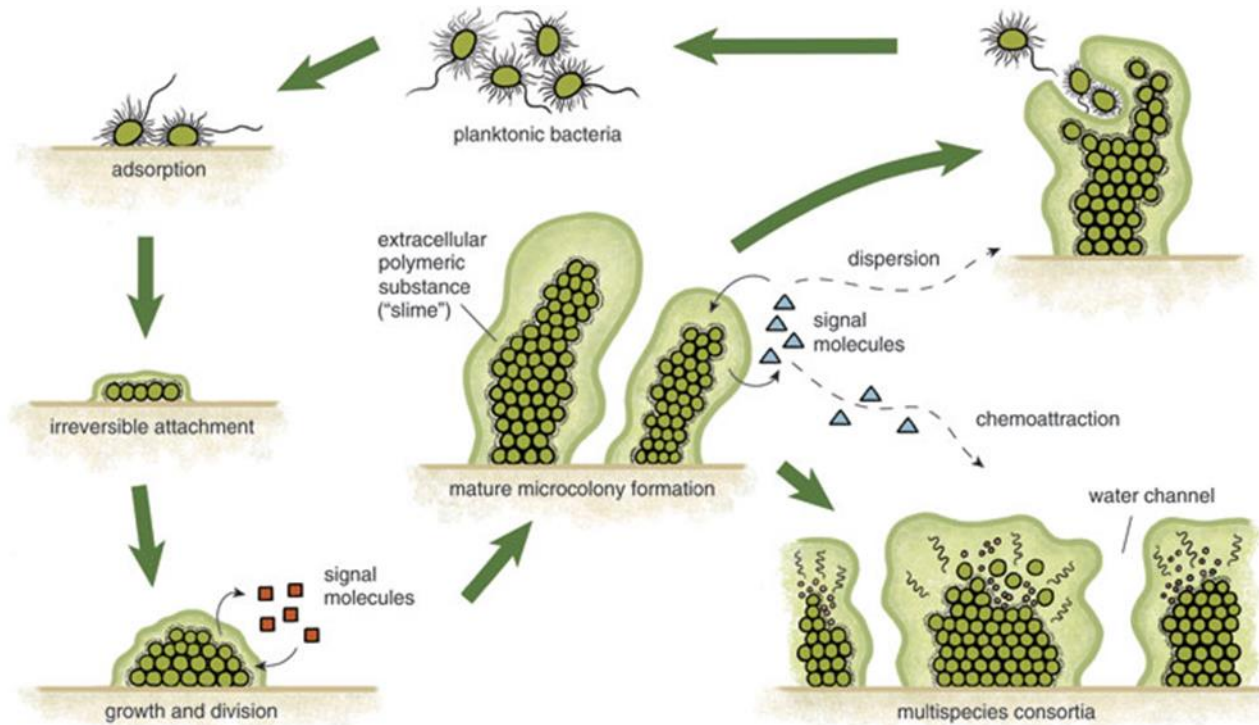
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- * Evidence suggests 85% of cross-infections relate to a biofilm.
- * Biofilms enable organisms to be 10 to 1000 times more resistant to antimicrobials than their free floating planktonic cousins.
- * Efficacy Testing to validate antimicrobials is almost always conducted against single species in their planktonic form.

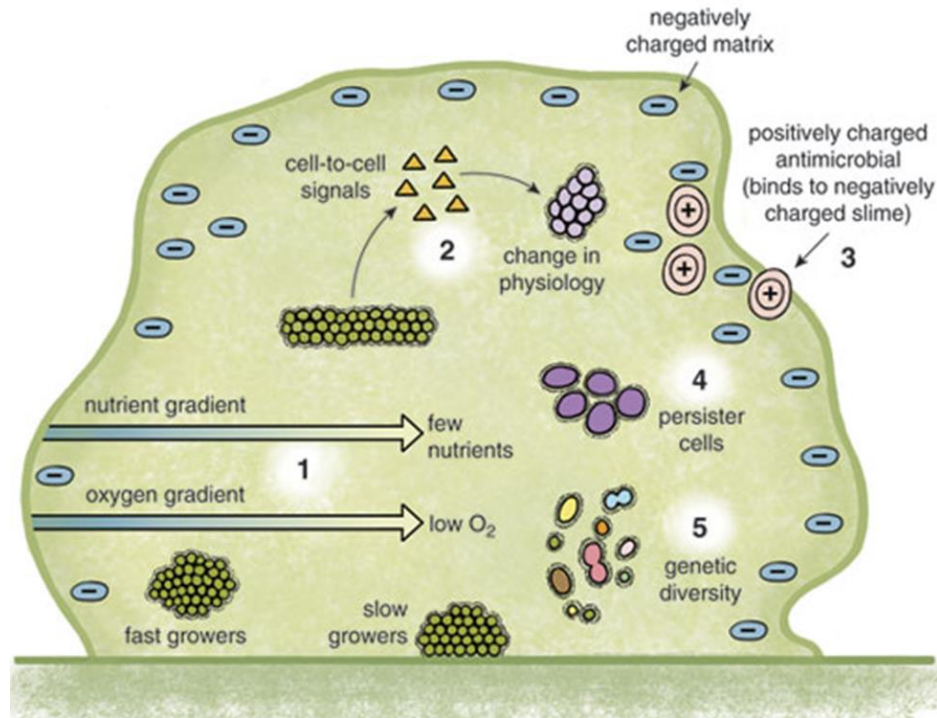


How do biofilms form?





How do biofilms cause high infection rates?





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- * Understand frequency of cleaning is important



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- * Disinfection chemistries with residual activity improve outcomes on surfaces
- * “persister Cells” are the cells last available survival mechanism.

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- * Some disinfection chemistries have better efficacy against biofilms.
- * Disinfection chemistries with residual activity improve outcomes on surfaces
- * Beware of “easy” solutions

* Questions?