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Why bacteria care about things you learned in your classical mechanics class

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Although bacteria are single-celled organisms, they can form interacting, multi-cellular communities known as "biofilms." In biofilms, bacteria and other microbes are bound to each other, and often to a surface, by polymers and proteins. As a result, bacteria in developing and mature biofilms experience mechanical forces, and have mechanical properties, that are unlike those experienced or possessed by single bacteria outside of a biofilm. I will discuss two cases where physical mechanics impact the biological function of bacteria in ways that help promote biofilm development and robustness.