

On stent design and Poisson's ratios

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Stents are artificial tubes which are inserted into natural passages in the body such as coronary vessels to prevent or counteract localized flow constriction. Here we discuss the characteristics of some of the more commonly used stents from a geometry-deformation mechanism point of view and show how our knowledge on the design of systems with tailor-made Poisson's ratio can be used to design superior stents.