



<b>Title:</b>	<b>Self-expandable stents in the gastrointestinal tract</b>
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<b>Summary:</b>	<p>The ideal stent for placement in the gastrointestinal tract would have the following properties: good visibility on fluoroscopy, predictable stent behavior on deployment, reliable expansion without causing pain, secure fixation yet the ability to be removed, resistance to obstruction, and high conformability around the flexures of the gut tube and the angled junctions of biliary tributaries. The latter is particularly important for the following reasons: If stents are too stiff to align around an anatomical curve, the ends may embed in the wall of the bowel or bile duct, resulting in impaired drainage or functional obstruction. Continuous pressure of the stent edges onto the mucosa can lead to ulceration, necrosis, and perforation. This may also occur with stents that have either large throats or particularly sharp edges. The stent must align within lumen and may not lie at angle to it; otherwise, reintervention becomes much more difficult. Coaxial cannulation into the stent may not be possible, and further procedures may have to be performed through the gaps in the interstices, limiting positioning and expansion of secondary stents and increasing the risk of entanglement. Stents are also submitted to repetitive flexion forces, which lead to material fatigue if there is insufficient elasticity within the stent skeleton. Stent development has mainly been driven by commercial considerations on a trial-and-error basis, and a vast number of stent constructions have been developed and discarded. In 2011, 16 colonic, 23 biliary, and 32 different esophageal stent models were registered as commercially available with the stent registries of the British Society of Interventional Radiology and the Association of Coloproctology of the UK and Ireland. Stents differ considerably in their properties, as defined by the material used, the construction of their skeleton, their shape, and optional covering membranes.</p>
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