

An *In vitro* Evaluation of Epidural Catheters: Tensile Strength and Resistance to Kinking

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Abstract

The tensile strengths of 12 commercially available brands of epidural catheters were assessed using an Instron material testing device. The mean values of the tensile strengths ranged from 1.89 to 3.74 kilogram force. The extent of catheter occlusion due to kinking was also studied using an in vitro apparatus designed to simulate drug delivery at various degrees of flow restriction. It was determined that reinforced catheters were less likely to be occluded secondary to kinking.

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