

Title (en)  
INTRAVASCULAR CATHETER WITH COMPOSITE REINFORCEMENT

Title (de)  
INTRAVASKULARER KATHETER MIT ZUSAMMENGESETZTER VERSTÄRKUNG

Title (fr)  
CATHETER INTRAVASCULAIRE A RENFORT COMPOSITE

Publication  
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Application  
**EP 00906968 A 20000120**

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Abstract (en)  
[origin: WO0043061A1] This invention is an intravascular catheter (10) that exhibits the combined features of superior flexibility, softness, radiopacity, and oval/kink resistance. The proximal region (14) of the shaft (12) includes an inner lubricious polymer layer (26), a reinforcement layer (32), and an outer layer (30). The reinforcement layer (32) may comprise a braid having one or more metallic helical members (42), and a plurality of mono-filaments (41), preferably formed of LCP. The polymer members of the braid provide improved flexibility, and softness in addition to high burst pressure. The metallic members of the braid provide improved radiopacity, and oval/kink resistance. The catheter (10) may also include one or more axial members disposed between the helical members that form the braid. The axial members (34) provide a number of advantages including maintaining one-to-one correspondence in axial manipulation; maintaining uniform flexibility in several planes of flexure; reducing the likelihood of causing a curling effect; uniformly increasing stiffness of the catheter; and increasing the burst strength of the catheter.

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