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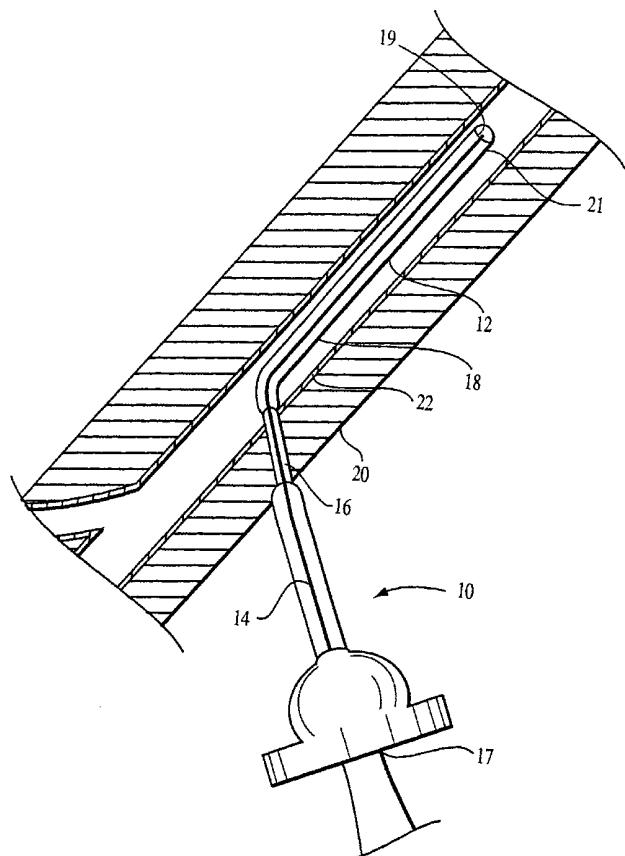
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(54) Title: DYNAMICALLY COMPLIANT CATHETER

(57) Abstract: A catheter (10) enabling a reduced puncture hole size into the skin (20) and blood vessel (22) is disclosed. In one embodiment, the catheter (10) has an elongate body (12) having an expandable sheath (18) extending at least a portion of its length. A pressure constraining sheath (16) is positioned to surround the expandable sheath (18), at a selected region to prevent expansion of the inner sheath (18) at the region of the constraining sheath (16). In one preferred use, the constraining sheath (16) is positioned at the puncture hole. During use, the catheter (10) increases in cross-section by the expandable sheath (18) expanding from a first diameter to a second diameter. However, the outer sheath (16) does not expand, maintaining a small diameter at the puncture site.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC⁷

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5498239 A (GALEL et al.) 12 March 1996, the whole document, especially abstract, figures 1,2,8,9,15,16, column 5, lines 5-45, column 7 lines 27-31, column 7, line 64 - column 8, line 19, column 8, lines 35-49.	1,2, 5-8, 14,15, 26-28
Y		9-11, 16-25
A	--	34-36
Y	US 5282781 A (LIPRIE) 01 February 1994, abstract, lines 1-9.	9-11, 16-21, 23-25

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Name and mailing address of the ISA

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4601713 A (FUQUA) 22 July 1986, the whole document, especially abstract, column 6, lines 32-34, 41-68, claims 1,9,10,13,19. --	9-11, 16-25
Y	US 5618267 A (PALESTRANT) 08 April 1997, the whole document, especially abstract, figures 1-4, column 6, line 19 - column 7, line 63, column 8, lines 26-45 --	9-11, 16-21, 23-25
A	--	26,28
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ANHANG

Zum internationalen Recherchenbericht über die internationale Patentanmeldung Nr.

ANNEX

To the International Search Report to the international Patent Application No.

ANNEXE

Au rapport de recherche international relativ à la demande de brevet international n°

PCT/US 00/08999 SAE 279681

In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentdokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

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Im Recherchenbericht angeführte Patentdokumente Patent document cited in search report Document de brevet cité dans le rapport de recherche	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets	Datum der Veröffentlichung Publication date Date de publication
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