

**510(k) Summary**

AUG - 5 2011

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**Trade Name:** Headway 27 Microcatheter  
**Generic Name:** Percutaneous Catheter  
**Classification:** Class II, 21 CFR 870.1250  
**Submitted By:** MicroVention, Inc  
1311 Valencia Avenue  
Tustin, California U.S.A.  
**Contact:** Naomi Gong  
**Date:** 2011Mar23  
**Predicate Device:** Headway 21 Microcatheter (K093160)

**Device Description:**

The Headway 27 Microcatheter is a single lumen catheter designed to be introduced over a steerable guidewire to access small, tortuous vasculature. The semi-rigid proximal section transitions to a flexible distal tip to facilitate advancement through vessels. Dual radiopaque markers at the distal end facilitate fluoroscopic visualization. The outer surface of the Microcatheter is coated with a hydrophilic polymer to increase lubricity. A luer fitting on the Microcatheter hub is used for the attachment of accessories.

**Indication For Use:**

The Headway 27 Microcatheter is intended for general intravascular use, including the peripheral, coronary and neurovasculature for the infusion of diagnostic agents, such as contrast media, and therapeutic agents, such as occlusion coils.

### Verification and Test Summary Table

Bench Testing	Result
Surface and physical attributes	Pass
Distal tensile strength	Pass
Hub tensile strength	Pass
Leakage (liquid and air)	Pass
Static and dynamic burst pressure	Pass
Simulated use	Pass
Compatibility with devices	Pass
Flow rate	Pass
Kink resistance	Pass
Catheter flexural fatigue	Pass
Torque test	Pass
DMSO compatibility	Pass

Biocompatibility	Result
Cytotoxicity (ISO 10993-5) - MEM elution assay - Agarose overlay	Pass
Sensitization/Irritation (ISO 10993-10) - Guinea pig maximization sensitization - Intracutaneous reactivity	Pass
Hemocompatibility (ISO 10993-4) - Hemolysis - Prothrombin time assay - Complement activation C3a and SC5b-9 - 4 hour thromboresistance in dogs	Pass
Systemic Toxicity (ISO 10993-11) - Systemic toxicity - Rabbit pyrogen test	Pass

### Technological Comparison

The Headway 27 utilizes the same fundamental technology, basic design, operating principle and intended use as the predicate device with the exception of the outer and inner diameter dimensions. The inner diameter was increased to 0.027" from 0.021" and the outer diameter was increased to 0.037" from 0.030".

### **Summary of Substantial Equivalence**

The data presented in this submission demonstrates the technological similarity and equivalency of the Headway 27 Microcatheter when compared with the predicate device, Headway 21 Microcatheter (K093160).

The devices,

- Have the same intended use,
- Use the same operating principle,
- Incorporate the same basic design,
- Use similar construction and material,
- Are packaged and sterilized using same material and processes.

In summary, the Headway 27 Microcatheter described in this submission is, in our opinion, substantially equivalent to the predicate device.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room - WO66-G609  
Silver Spring, MD 20993-0002

MicroVention Inc.  
c/o Ms. Naomi Gong  
1311 Valencia Avenue  
Tustin, CA 92780

Re: K110813

AUG - 5 2011

Trade/Device Name: Headway 27 Microcatheter  
Regulation Number: 21 CFR 870.1250  
Regulation Name: Percutaneous catheter  
Regulatory Class: Class II  
Product Code: DQY  
Dated: July 20, 2011  
Received: July 21, 2011

Dear Ms. Gong:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

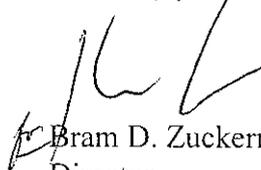
Page 2 – Ms. Naomi Gong

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**Indications for Use**

510(k) Number (if known): K110813

Device Name: Headway 27 Microcatheter

Indications For Use:

*The Headway 27 Microcatheter is intended for general intravascular use, including the peripheral, coronary and neurovasculature for the infusion of diagnostic agents, such as contrast media, and therapeutic agents, such as occlusion coils.*

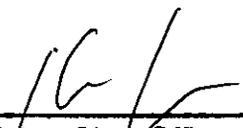
Prescription Use  X   
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
\_\_\_\_\_  
(Division Sign-Off)  
Division of Cardiovascular Devices

510(k) Number K110813