

**JUL 19 2005**

1051737 p1/2

**510(k) Summary of Safety and Effectiveness**  
**Line Extension to the V-40™/C-Taper Adapter Sleeve**

Proprietary Name: V-40™/C-Taper Adapter Sleeve  
Common Name: V40™/C-Taper Adapter Sleeve  
Proposed Regulatory Class: Class II  
Classification: Hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis, 21 CFR §888.3353.  
Device Product Code: 87 LZO: Prosthesis, Hip, Semi-Constrained, Metal/Ceramic/Polymer, Cemented or Non-Porous, Uncemented.  
For Information contact: Karen Ariemma, Senior Regulatory Affairs Specialist  
Howmedica Osteonics Corp.  
325 Corporate Drive  
Mahwah, NJ 07430  
Telephone: (201) 831-5718  
Fax: (201) 831-6038  
Email: karen.ariemma@stryker.com  
Date Summary Prepared: June 27, 2005

**Device Description**

The subject V-40™/C-Taper Adapter Sleeve is a tapered sleeve component with a female V-40™ taper to provide locking with a Howmedica Osteonics femoral stem with a V-40™ taper. In addition, the sleeve has a tapered male exterior surface that provides locking with Howmedica Osteonics C-Taper Alumina Ceramic Heads.

**Device Modification**

This submission adds the use of a C-Taper Biolox® Delta Ceramic Femoral Head with the V-40™/C-Taper Adapter Sleeve.

**Intended Use**

The V40™/C-Taper Adapter Sleeve is intended to allow either a Howmedica Osteonics C-Taper

Alumina Head or a Howmedica Osteonics C-Taper Biolox® Delta Ceramic Femoral Head to mate with a Howmedica Osteonics femoral stem with a V40™ taper. The V40™/C-Taper Adapter Sleeve is a single-use device.

**Indications for Use**

**For Use as a Total Hip Replacement:**

- Painful disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis or late stage vascular necrosis.
- Revision of previous cup arthroplasty or other procedures.
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.

**For Use as a Bipolar Hip Replacement**

- Femoral head/neck fractures or non-unions.
- Aseptic necrosis of the femoral head.
- Osteo-, rheumatoid, and post traumatic arthritis of the hip with minimal acetabular involvement or distortion.

*Other Considerations:*

- Pathological considerations or age considerations which indicate a more conservative acetabular procedure and an avoidance of the use of bone cement in the acetabulum.
- Salvage of failed total hip arthroplasty.

**Substantial Equivalence**

The features of the new components are substantially equivalent to the predicate devices based on similarities in intended use, materials and design. Mechanical testing demonstrates substantial equivalence of the new components to the predicate devices in regards to mechanical strength. In addition, the intended use, manufacturing methods, packaging, and sterilization of the predicate and new components are identical. The material of the subject V40™/C-Taper Adapter Sleeve remains unchanged. The subject ceramic femoral heads are fabricated from Zirconia toughened Alumina.



JUL 19 2005

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Ms. Karen Ariemma  
Senior Regulatory Affairs Specialist  
Howmedica Osteonics Corp.  
325 Corporate Drive  
Mahwah, New Jersey 07432

Re: K051737  
Trade/Device Name: V40™/C-Taper Sleeve  
Regulation Number: 21 CFR 888.3353  
Regulation Name: Hip joint metal/ceramic/polymer semi-constrained  
cemented or nonporous uncemented prosthesis  
Regulatory Class: II  
Product Code: LZO  
Dated: June 27, 2005  
Received: June 28, 2005

Dear Ms. Ariemma:

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.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such 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.

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); 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.

Page 2 - Ms. Karen Ariemma

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). 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) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Miriam C. Provost, Ph.D  
Acting Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

Indications for Use

510(k) Number (if known): \_\_\_\_\_

Device Name: V40™/C-Taper Adapter Sleeve

Indications For Use:

The indications for use of the subject device, in keeping with those of other legally marketed Howmedica Osteonics' adapter sleeves is as follows:

**For Use as a Total Hip Replacement**

- Painful disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis or late stage vascular necrosis.
- Revision of previous cup arthroplasty or other procedures.
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.

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*Other Considerations:*

- Pathological considerations or age considerations which indicate a more conservative acetabular procedure and an avoidance of the use of bone cement in the acetabulum.
- Salvage of failed total hip arthroplasty.

Prescription Use  X  AND/OR Over-The-Counter Use \_\_\_\_\_

(Part 21 CFR 801 Subpart D)

(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)

Page  1  of  1

(Signature)  
Division of General Practice  
and...

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