



OCT 27 1999

K 992667

P.O. Box 708  
Warsaw, IN 46581-0708  
219 267-6131

**Summary of Safety and Effectiveness**

- **Submitted By:**

Zimmer, Inc.  
P.O. Box 708  
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219-267-6131

- **Contact Person:**

Karen Cain  
Regulatory Affairs Associate  
Telephone: 219/372-4219  
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- **Date:**

August 2, 1999

- **Trade Name:**

ZMR™ Hip System-Revision Taper

- **Common Name:**

Femoral Hip Prosthesis

- **Classification Name:**

Hip joint metal/polymer semiconstrained uncemented prosthesis

- **Predicate Devices:**

- Impact Modular Total Hip System, manufactured by Biomet, K921274, cleared June 3, 1994
- MP Reconstruction Hip Stem, manufactured by Link, K955296, cleared February 14, 1996
- VerSys® Hip System-Enhanced Taper Hip Prosthesis, manufactured by Zimmer, K961378, cleared October 8, 1996



**Summary of Safety and Effectiveness  
(Continued)**

- **Device Description**

The *ZMR* Revision Taper Hip Prosthesis is a femoral stem straight femoral stem manufactured from *Titanium*® (Ti-6Al-4V) Alloy, and intended for cementless use in revision hip arthroplasty. This device has two modular junctions: a head/neck junction and a midstem junction. Three components are intraoperatively assembled to construct the device: a proximal segment or “body,” a distal stem, and a compression nut.

- **Intended Use**

The *ZMR* Revision Taper Hip Prosthesis is intended for revision hip arthroplasty in patients whose bone stock is of poor quality or inadequate for other reconstruction techniques as indicated by deficiencies of the femoral head, neck, or portions of the proximal femur.

- **Comparison to Predicate Devices**

All hip systems listed above are substantially equivalent to each other and the *ZMR* Revision Taper Hip Prosthesis in that each is intended for cementless fixation into the intramedullary canal for pathological or degenerative conditions involving the femur and/or acetabulum. All predicate devices feature a Morse-type proximal neck taper that mates with a femoral head which, in turn, articulates upon the ultra-high molecular-weight polyethylene (UHMWPE) bearing surface of a total hip or hemi-hip acetabular component. All predicate devices are manufactured from metal alloys that have a history of successful clinical use in orthopaedic applications.

RA07901K.510



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

Zimmer, Inc.  
% Mr. Daniel Williman  
Associate Project Manager, Regulatory Affairs  
P.O. Box 708  
Warsaw, Indiana 46581-0708

FEB - 3 2012

Re: K992667

Trade/Device Name: ZMR™ Hip System- Revision Taper  
Regulation Number: 21 CFR 888.3358  
Regulation Name: Hip joint metal/polymer/metal semi-constrained porous-coated  
uncemented prosthesis  
Regulatory Class: II  
Product Code: LPH, LZO, LWJ  
Dated: August 2, 1999  
Received: August 9, 1999

Dear Mr. Williman:

This letter corrects our substantially equivalent letter of October 27, 1999.

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 (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 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); 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,

A handwritten signature in black ink, appearing to read 'Mark N. Melkerson', with a stylized flourish at the end. Below the signature, the text 'U.S. FDA' is written in a smaller, less legible hand.

Mark N. Melkerson  
Director  
Division of Surgical, Orthopedic, and  
Restorative Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K992667

Device Name:

ZMR<sup>®</sup> Hip System – Revision Taper

Indications for Use:

The ZMR Hip System is indicated for cementless revision hip arthroplasty. Arthroplasty should be performed only when more conservative methods of treatment have failed to provide symptomatic relief or when there is progressive disability.

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)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
for (Division Sign-Off)  
Division of Surgical, Orthopedic,  
and Restorative Devices

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