

**Summary of Safety and Effectiveness**

**Submitter:** Zimmer, Inc.  
P.O. Box 708  
Warsaw, IN 46581-0708

**Contact Person:** Brandon Hipsher  
Associate, Corporate Regulatory Affairs  
Telephone: (574) 371-8083  
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**Date:** October 11, 2005

**Trade Name:** *NexGen*<sup>®</sup> Complete Knee Solution *MIS*<sup>™</sup> Modular  
Tibial Plates and Keels

**Common Name:** Total Knee Prosthesis

**Classification Name  
and Reference:** Knee joint patellofemorotibial polymer/metal/  
polymer semi-constrained cemented prosthesis  
21 CFR § 888.3560

**Predicate Device:** *NexGen*<sup>®</sup> Complete Knee Solution, manufactured  
by Zimmer, Inc., K933785, cleared January 30,  
1995

**Device Description:** The *NexGen MIS* Modular Tibial Plates and Keels  
are part of the *NexGen* system of semiconstrained,  
nonlinked condylar knee prostheses.

**Intended Use:** This device is indicated for patients with severe  
knee pain and disability due to:

- Rheumatoid arthritis, osteoarthritis,  
traumatic arthritis, polyarthritis.
- Collagen disorders, and/or avascular  
necrosis of the femoral condyle.
- Post-traumatic loss of joint configuration,  
particularly when there is patellofemoral  
erosion, dysfunction or prior patellectomy
- Moderate valgus, varus, or flexion  
deformities.
- The salvage of previously failed surgical  
attempts or for a knee in which satisfactory

stability in flexion cannot be obtained at the time of surgery.

This device is intended for cemented use only.

**Comparison to Predicate Device:**

Except for minor modifications, *MIS* Modular Tibial Plates and Keels are identical to the predicate device. The modifications do not change the intended use or the fundamental scientific technology. The device is manufactured, packaged and sterilized using the same materials and processes.

**Performance Data (Nonclinical and/or Clinical):**

**Non-Clinical Performance and Conclusions:**

Performance testing completed as part of the design assurance process demonstrated that this device is safe and effective and substantially equivalent to the predicate device.

**Clinical Performance and Conclusions:**

Clinical data and conclusions were not needed for this device.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

NOV 22 2005

Mr. Brandon Hipsher  
Associate, Corporate Regulatory Affairs  
Zimmer, Inc.  
P. O. Box 708  
Warsaw, Indiana 46581-0708

Re: K052879  
Trade/Device Name: NexGen Complete Knee Solution MIS Modular Tibial Plates and Keels  
Regulation Number: 21 CFR 888.3560  
Regulation Name: Knee joint patellofemorotibial polymer/metal/polymer semi-constrained cemented prosthesis  
Regulatory Class: II  
Product Code: JWH  
Dated: November 03, 2005  
Received: November 07, 2005

Dear Mr. Hipsher:

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.

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/industry/support/index.html>.

Sincerely yours,



*for* Mark N. Melkerson  
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:

*NexGen*<sup>®</sup> Complete Knee Solution *MIS*<sup>™</sup> Modular Tibial Plates and Keels

Indications for Use:

This device is indicated for patients with severe knee pain and disability due to:

- Rheumatoid arthritis, osteoarthritis, traumatic arthritis, polyarthritis.
- Collagen disorders, and/or avascular necrosis of the femoral condyle.
- Post-traumatic loss of joint configuration, particularly when there is patellofemoral erosion, dysfunction or prior patellectomy
- Moderate valgus, varus, or flexion deformities.
- The salvage of previously failed surgical attempts or for a knee in which satisfactory stability in flexion cannot be obtained at the time of surgery.

This device is intended for cemented use only.

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 General, Restorative,  
and Neurological Devices**

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