



MAR 20 2003

### Summary of Safety and Effectiveness

**Applicant/Sponsor:** Biomet Orthopedics, Inc.

**Contact Person:** Patricia Sandborn Beres  
Senior Regulatory Specialist  
Phone: (574) 267-6639

**Proprietary Name:** X-Series Integral® Hip Femoral Components

**Common Name:** Hip replacement prosthesis

**Classification Name:** Prosthesis, hip, semi-constrained, metal/polymer, porous coated uncemented (21 CFR 888.3558)

**Legally Marketed Device to which Substantial Equivalence is Claimed:**  
Integral® Hip Femoral Component (K984296)

**Device Description:** The X-Series Integral® femoral components are identical to the predicate Integral® femoral components in overall geometry. Both device series are manufactured from titanium alloy (Ti-6Al-4V) conforming to ASTM F-620. Additional stem diameters and lengths have been added to the product line. The insertion hole has been moved medially by 6mm.

**Indications for Use:** Non-cemented total joint replacement in cases of:

- 1) Non-inflammatory degenerative joint disease including osteoarthritis and avascular necrosis
- 2) Rheumatoid arthritis
- 3) Correction of functional deformity
- 4) Treatment of non-union, femoral neck fracture, and trochanteric fractures of the proximal femur with head involvement, unmanageable by other techniques.
- 5) Revision of previously failed total hip arthroplasty

**Summary of Technologies:** The technological characteristics (materials, design, sizing and indications) of the X-Series Integral® femoral components are similar to or identical to the predicate device.

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P.O. Box 587  
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56 E. Bell Drive  
Warsaw, IN 46582

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574.267.6639

FAX  
574.267.8137

E-MAIL  
biomet@biomet.com

**Non-Clinical Testing:** Finite Element Analysis and engineering analysis were conducted to insure the design changes would not effect the safety of the device.

**Clinical Testing:** None provided



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

MAR 20 2003

Ms. Patricia Sandborn Beres  
Senior Regulatory Specialist  
Biomet, Inc.  
P.O. Box 587  
Warsaw, IN 46581

Re: K030501

Trade/Device Name: X-Series Integral<sup>®</sup> Femoral Components

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

Dated: February 14, 2003

Received: February 19, 2003

Dear Ms. Beres:

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.

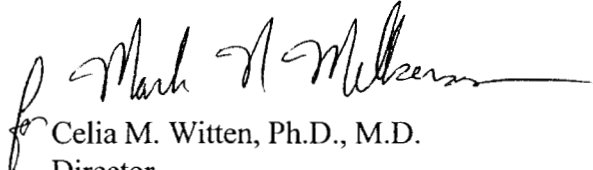
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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 (301) 594-4639. 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 may be obtained 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,

A handwritten signature in black ink, appearing to read "for Celia M. Witten". The signature is written in a cursive style with a long horizontal flourish at the end.

Celia M. Witten, Ph.D., M.D.

Director

Division of General, Restorative  
and Neurological Devices

Office of Device Evaluation

Center for Devices and  
Radiological Health

Enclosure

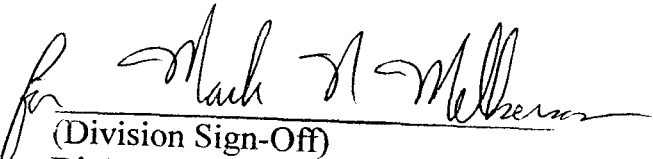
510(k) Number (if known): K030501

Device Name: X-Series Integral® Femoral Components

**Indications For Use:**

Non-cemented total joint replacement in cases of:

- 1) Noninflammatory degenerative joint disease including osteoarthritis and avascular necrosis
- 2) Rheumatoid arthritis
- 3) Correction of functional deformity
- 4) Treatment of non-union, femoral neck fracture, and trochanteric fractures of the proximal femur with head involvement, unmanageable by other techniques.
- 5) Revision of previously failed total hip arthroplasty



(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number K030501

(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)

Prescription Use Yes  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use No

(Optional Format 1-2-96)