



FEB 25 2013

## 510(k) Summary

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of 21 CFR § 807.92.

**Preparation Date:** November 16, 2012  
**Applicant/Sponsor:** Biomet Spine  
100 Interpace Parkway  
Parsippany, NJ 07054  
**Contact Person:** Vivian Kelly  
Regulatory Affairs Project Manager  
Phone: 973-299-9300 x2214  
Fax: 973-257-0232  
**Trade name:** Polaris Spinal System –Translation Screw  
**Common Name:** Non-cervical spinal fixation system  
**Classification Name  
(Product Code):** Posterior, noncervical, nonpedicle use (KWP)  
Anterior/anterolateral noncervical use (KWQ)  
Noncervical pedicle applications (MNI, MNH and NKB)  
**Device Panel - Regulation No.:** Orthopedic - 21 CFR 888.3050, 888.3060 and 888.3070

### Device Description:

The Polaris Spinal System is a non-cervical spinal fixation device. The system includes screws, various types and sizes of rods, locking nuts, hooks, lateral connectors, plugs, fixation washers, rod connectors/dominos and various cross connectors. Various instruments are also available for use by the surgeon to facilitate implantation of the device. This submission is a line extension to Polaris Spinal System to add other styles of multiaxial screw, including a screw with translating feature, and to provide the Polaris Spinal System sterile packed.

### Indications for Use:

The Polaris Spinal System is a non-cervical spinal fixation device intended for immobilization and stabilization as an adjunct to fusion as a pedicle screw fixation system, a posterior hook and sacral/iliac screw fixation system, or as an anterior or anterolateral fixation system. Pedicle screw fixation is limited to skeletally mature patients and for use with autograft and/or allograft. The device is indicated for all the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformity or curvature (i.e., scoliosis, kyphosis, and/or lordosis), tumor, stenosis, pseudoarthrosis, or failed previous fusion.

The Ballista/Ballista II instruments are intended to be used with Ballista /Ballista II/Polaris 5.5mm implants. Cannulated screws and percutaneous rods may be used with the Ballista/Ballista II instruments to provide the surgeon with a percutaneous approach for posterior spinal surgery for the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformity or curvature (i.e., scoliosis, kyphosis, and/or lordosis), tumor, stenosis, pseudoarthrosis, or failed previous fusion that warrant the use of a non-cervical spinal fixation device

intended for use as a pedicle screw fixation system or sacral/iliac screw fixation system. Pedicle screw fixation is limited to skeletally mature patients and for use with autograft and/or allograft.

The Polaris Spinal System may be used with the instruments in the AccuVision Minimally Invasive Spinal Exposure System to provide the surgeon with a minimally invasive approach for posterior spinal surgery.

The dominos in the Polaris Spinal System can be used to connect the Polaris Spinal System to the Altius Spinal System, the Array Spinal System, the Biomet Omega21 Spinal System, or the Synergy Spinal System to achieve additional levels of fixation. Please refer to the individual system's Package Insert for a list of the indications for use for each system.

**Summary of Technologies:**

The technological characteristics of the new components are the same as, or similar to, the predicate devices in regards to material, design and operational principles.

**Performance Data:**

Mechanical testing was conducted in accordance with FDA's Guidance for Industry and FDA Staff – Spinal System 510(k)s dated May 3, 2004. Per the guidance document, the following testing was conducted: static compression bending, static torsion and dynamic compression bending fatigue per ASTM 1717-11a, Standard Test Methods for Static and Fatigue for Spinal Implant Constructs in a Vertebrectomy Model. The mechanical testing verifies that the subject device is substantially equivalent to other spinal systems currently on the market for its intended use and has met all mechanical test requirements based on the worst-case construct testing.

**Substantial Equivalence:**

The subject components in the Polaris Spinal System are substantially equivalent to the other screws in Polaris Spinal System (K061441, K090203 & 111957), the Nextgen OCT System (K113593), the Venus Spinal Fixation System (K120270, K100706 & K103085) and the CD Horizon® Solera™ Spinal System (K113174, K112473 & K102555.) The proposed screws are substantially equivalent to the predicate systems with respect to intended use and indications, materials, technological characteristics, and principles of operation and do not present any new issues of safety or effectiveness.

**Conclusion:**

The subject components are substantially equivalent to the predicate systems as spinal fixation devices in regards to intended use, indications, fundamental technology, and operational principles. Furthermore, mechanical testing and other supporting information sufficiently demonstrate the substantial equivalence of the subject device to the other components in the Polaris Spinal System and the other named predicate systems. Based on this information, the subject device does not raise any new issues regarding the safety or efficacy.



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

February 25, 2013

Biomet Spine  
% Ms. Vivian Kelly  
Regulatory Affairs Project Manager  
100 Interpace Parkway  
Parsippany, New Jersey 07054

Re: K123549

Trade/Device Name: Polaris Spinal System - Translation Screw  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class III  
Product Code: NKB, MNI, MNH, KWQ, KWP  
Dated: January 25, 2013  
Received: January 28, 2013

Dear Ms. Kelly:

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.

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/ucml15809.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" (21 CFR 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,

**Erin D Keith**

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

Enclosure

Indications for Use

510(k) Number (if known): K123549

Device Name: Polaris Spinal System

Indications for Use:

The Polaris Spinal System is a non-cervical spinal fixation device intended for immobilization and stabilization as an adjunct to fusion as a pedicle screw fixation system, a posterior hook and sacral/ilic screw fixation system, or as an anterior or anterolateral fixation system. Pedicle screw fixation is limited to skeletally mature patients and for use with autograft and/or allograft. The device is indicated for all the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformity or curvature (i.e., scoliosis, kyphosis, and/or lordosis), tumor, stenosis, pseudoarthrosis, or failed previous fusion.

The Ballista/Ballista II instruments are intended to be used with Ballista/Ballista II/Polaris 5.5mm implants. Cannulated screws and percutaneous rods may be used with the Ballista/Ballista II instruments to provide the surgeon with a percutaneous approach for posterior spinal surgery for the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformity or curvature (i.e., scoliosis, kyphosis, and/or lordosis), tumor, stenosis, pseudoarthrosis, or failed previous fusion that warrant the use of a non-cervical spinal fixation device intended for use as a pedicle screw fixation system or sacral/ilic screw fixation system. Pedicle screw fixation is limited to skeletally mature patients and for use with autograft and/or allograft.

The Polaris Spinal System may be used with the instruments in the AccuVision Minimally Invasive Spinal Exposure System to provide the surgeon with a minimally invasive approach for posterior spinal surgery.

The dominos in the Polaris Spinal System can be used to connect the Polaris Spinal System to the Altius Spinal System, the Array Spinal System, the Biomet Omega21 Spinal System, or the Synergy Spinal System to achieve additional levels of fixation. Please refer to the individual system's Package Insert for a list of the indications for use for each system.

Prescription Use   
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use   
(21 CFR 801 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

**Ronald P. Jean -S**

(Division Sign-Off)

Division of Orthopedic Devices

510(k) Number: K123549