

**510(k) Summary  
for the Osseus Black Diamond Pedicle Screw System**

In accordance with 21 CFR 807.92 of the Federal Code of Regulations the following 510(k) summary is submitted for the Osseus Black Diamond Pedicle Screw System

**1. GENERAL INFORMATION**

**Date Prepared:** June 13, 2013

**Trade Name:** Osseus Black Diamond Pedicle Screw System

**Common Name:** pedicle screw system

**Classification** orthosis, spinal pedicle fixation

**Name:** orthosis, spondylolisthesis spinal fixation

**Class:** II

**Product Code:** MNI  
MNH

**CFR section:** 21 CFR section 888.3070

**Device panel:** Orthopedic

**Legally Marketed** Viper Spine System – DePuy Spine (K061520 / K090648 / K102701 / K111571)

**Predicate Device:** Low Torque Pedicle Screw - Altus Spine (Vertebron, Ltd) K033352/K043152/

K051716/K071376 / K081597

Synergy VLS – open (K940631 / K950099)

Moss Miami SS - DePuy Spine (K000536)

PWB (now Synergy) (K920116)

**Submitter:** Osseus Fusion Systems, LLC  
4514 Cole Ave, Ste. 600  
Dallas, TX 75205  
601-420-424

**Contact:** J.D. Webb  
1001 Oakwood Blvd  
Round Rock, TX 78681  
512-388-0199 Tele  
512-692-3699 Fax  
e-mail: jdwebb@orthomedix.net

**AUG 08 2013**

**2. DEVICE DESCRIPTION**

The Osseus Black Diamond Pedicle Screw System is a top loading, multiple component, posterior spinal fixation system which consists of pedicle screws, rods and cross links. All of the components are available in a variety of sizes to match more closely the patient's anatomy.

**Materials:**

Ti-6Al-4V per ASTM F136

**3. SUBSTANTIAL EQUIVALENCE CLAIMED TO PREDICATE DEVICES**

The Osseus Black Diamond Pedicle Screw System is substantially equivalent to the predicate devices in terms of intended use, design, materials used, mechanical safety and performances.

**4. INTENDED USE**

The Osseus Black Diamond Pedicle Screw System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurological impairment, fracture, dislocation, deformities or curvatures (i.e. scoliosis, kyphosis, and/or lordosis), spinal tumor, pseudarthrosis and failed previous fusion.

The Osseus Black Diamond Pedicle Screw System is also intended for non-cervical pedicle screw fixation for the following indications: severe spondylolisthesis (grades 3 and 4) of the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine (L3 to sacrum) with removal of the implants after the attainment of a solid fusion. It is also intended for the following indications: trauma (i.e. fracture or dislocation); spinal stenosis; deformities or curvatures (i.e. scoliosis, kyphosis, and/or lordosis), tumor; pseudoarthrosis; and failed previous fusion.

**5. NON-CLINICAL TEST SUMMARY**

The following tests were conducted:

- Static and dynamic compression per ASTM F1717
- Static torsion per ASTM F1717

The results of this testing indicate that the Osseus Black Diamond Pedicle Screw System is equivalent to predicate devices.

**6. CLINICAL TEST SUMMARY**

No clinical studies were performed

**7. CONCLUSIONS NONCLINICAL AND CLINICAL**

Osseus Fusion Systems, LLC considers the Osseus Black Diamond Pedicle Screw System to be equivalent to the predicate device listed above. This conclusion is based upon the device's similarities in principles of operation, technology, materials and indications for use



August 8, 2013

Osseus Fusion Systems, LLC  
% OrthoMedix Group, Incorporated  
Mr. J. D. Webb  
1001 Oakwood Boulevard  
Round Rock, Texas 78681

Re: K131810

Trade/Device Name: Osseus Black Diamond Pedicle Screw System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class II  
Product Code: MNH, MNI  
Dated: June 13, 2013  
Received: June 19, 2013

Dear Mr. Webb:

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

Page 2 – Mr. J. D. Webb

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 contact 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>. 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 I. Keith**

For

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): K131810

Device Name: Osseus Black Diamond Pedicle Screw System

Indications for Use:

The Osseus Black Diamond Pedicle Screw System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurological impairment, fracture, dislocation, deformities or curvatures (i.e. scoliosis, kyphosis, and/or lordosis), spinal tumor, pseudarthrosis and failed previous fusion.

The Osseus Black Diamond Pedicle Screw System is also intended for non-cervical pedicle screw fixation for the following indications: severe spondylolisthesis (grades 3 and 4) of the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine (L3 to sacrum) with removal of the implants after the attainment of a solid fusion. It is also intended for the following indications: trauma (i.e. fracture or dislocation); spinal stenosis; deformities or curvatures (i.e. scoliosis, kyphosis, and/or lordosis), tumor; pseudoarthrosis; and failed previous fusion.

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 OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

**Ronald P. Jean -S**

\_\_\_\_\_  
(Division Sign-Off)  
Division of Orthopedic Devices  
510(k) Number: K131810