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**510(k) SUMMARY**

**APR 14 2014**

**Cervical Stand Alone System**

**510(k) Owner Information**

Name: Orthofix Inc.  
Address: 3451 Plano Parkway  
Lewisville, TX 75056

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Contact Person: Natalia Volosen  
Senior Regulatory Affairs Specialist

Date Prepared: April, 10, 2014

**Name of Device**

Trade Name / Proprietary Name: Cervical Stand Alone System

Common Name: Intervertebral body fusion device

Product Code: OVE – Cervical intervertebral fusion device with integrated fixation

Regulatory Classification: Class II – 21 CFR § 888.3080 – Intervertebral body fusion device

Review Panel: Orthopedic Device Panel

Predicate Devices: K101812 – CONSTRUX Mini PEEK Spacer System, SE 9/27/10  
K091088 – LDR Spine Cervical Interbody Fusion System, SE 07/14/09  
K083389 – COALITION Spacer, SE 03/26/09  
K102606 – AVS Anchor-C Cervical Cage System, SE 04/22/11

Reason for 510(k) Submission: New product offering

**Device Description**

The Cervical Stand Alone device is a stand-alone spacer system designed to provide structural stability in skeletally mature individuals following discectomy. The spacers are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients. Screws are inserted through the anterior titanium portion of the implant into adjacent vertebral bodies for bony fixation. The spacer is to be filled with autogenous bone graft material.

The Cervical Stand Alone spacer is manufactured from PEEK and Titanium with Titanium bone screws that allow intradiscal fixation to the vertebral body. The superior and inferior surfaces of the implant have a pattern of ridges that provide increased stability and help prevent migration of the device.

**Intended Use / Indications for Use**

The Cervical Stand Alone System is indicated for spinal fusion procedures at one level in the cervical spine (C2-T1), in skeletally mature patients with degenerative disc disease (DDD). DDD is defined as neck pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies.

The Cervical Stand Alone System is used with autograft bone material and the two titanium alloy screws which accompany the implant.

Patients must have undergone a regimen of at least six (6) weeks of non-operative treatment prior to being treated with the Cervical Stand Alone System in the cervical spine.

**Summary of the Technological Characteristics of the Device Compared to the Selected Predicate Devices**

The technological characteristics of the Cervical Stand Alone System are similar to the predicate devices in terms of design, dimensions, intended use, materials, and performance characteristics

**PERFORMANCE DATA – Summary of Non-Clinical Test Conducted for Determination of Substantial Equivalence**

Mechanical testing consisting of Static and Dynamic Axial Compression Test, Static and Dynamic Torsion Test, Static and Dynamic Compression Shear Test, Subsidence Test and Expulsion Test were conducted in accordance to ASTM F2077-11 standard for Test Method for Intervertebral Body Fusion Devices, ASTM F2267-04 standard for Test Method for Measuring Load Induced Subsidence of Intervertebral Body Fusion Device under Static Axial Compression and in accordance with ASTM Draft Standard F-04.25.02.02, "Static Push-out Test Method for Intervertebral Body Fusion Devices.

**Basis of Substantial Equivalence**

The new Cervical Stand Alone system has the same intended use, similar indications for use, the same technological characteristics and design, same materials and the same principles of operation as the to the AVS Anchor-C Cervical Cage System, CONSTRUX Mini PEEK Spacer system, COALITION Spacer and LDR Spine Cervical Interbody Fusion System device.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

April 14, 2014

Orthofix, Incorporated  
Ms. Natalia Volosen  
Senior Regulatory Affairs Specialist  
3451 Plano Parkway  
Lewisville, Texas 75056

Re: K132999  
Trade/Device Name: Cervical Stand Alone System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: OVE  
Dated: March 6, 2014  
Received: March 7, 2014

Dear Ms. Volosen:

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

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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,

Ronald P. Jean -S 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)  
K132999

Device Name

Cervical Stand Alone System

Indications for Use (Describe)

The Cervical Stand Alone System is indicated for spinal fusion procedures at one level in the cervical spine (C2-T1), in skeletally mature patients with degenerative disc disease (DDD). DDD is defined as neck pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies.

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Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

**FOR FDA USE ONLY**

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

**Anton E. Dmitriev, PhD**

**Division of Orthopedic Devices**

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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