



Food and Drug Administration  
10903 New Hampshire Avenue  
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Silver Spring, MD 20993-0002

Centinel Spine, Incorporated  
% Mr. Justin Eggleton  
Director, Spine Regulatory Affairs  
Musculoskeletal Clinical Regulatory Advisers, LLC  
1331 H Street NW, 12<sup>th</sup> Floor  
Washington, District of Columbia 20005

July 31, 2015

Re: K150053  
Trade/Device Name: STALIF C<sup>®</sup> and STALIF C-Ti<sup>™</sup>  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: OVE  
Dated: June 24, 2015  
Received: June 24, 2015

Dear Mr. Eggleton:

This letter corrects our substantially equivalent letter of June 24, 2015.

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 contact the Division of Industry and Consumer Education 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" (21CFR 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 Industry and Consumer Education 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,

**Mark N. Melkerson -S**

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

Enclosure

## 510(k) Summary

K150053

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**Device Trade Name:** STALIF C® and STALIF C-Ti™

**Manufacturer:** Centinel Spine, Inc.  
900 Airport Road, Suite 3B  
West Chester, PA 19380

**Contact:** Mr. John Parry  
Development Manager  
Phone: (484) 887.8813

**Prepared by:** Mr. Justin Eggleton  
Musculoskeletal Clinical Regulatory Advisers, LLC  
1331 H Street NW, 12<sup>th</sup> Floor  
Washington, DC 20005  
Phone: (202) 552-5800  
jeggleton@mcra.com

**Date Prepared:** June 22, 2015

**Classifications:** 21 CFR §888.3080, Intervertebral body fusion device

**Class:** II

**Product Codes:** OVE

**Primary Predicate:** K142079, STALIF C®, STALIF C-Ti™

**Reference Device:** K142264, Amedica Valeo® Cage

### Indications For Use:

The STALIF C® and STALIF C-Ti™ devices are intended to be used as an intervertebral body fusion cage as a standalone system used with bone screws provided and requires no additional supplementary fixation systems. It is inserted between the vertebral bodies into the disc space at one or two contiguous levels from the C2/C3 disc space to the C7/T1 disc space for the treatment of cervical degenerative disc disease (defined as neck pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies). The device system is designed for use with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone graft, to facilitate fusion.

The cervical cage is to be used in a skeletally mature patient who has had six weeks of non-operative treatment prior to implantation of the cage.

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The cervical cage is to be used in a skeletally mature patient who has had six weeks of non-operative treatment prior to implantation of the cage.

**Summary of Technological Characteristics:**

STALIF C® is a radiolucent intervertebral body fusion cage with unicortical cancellous bone screws. It is intended to be used as an IBF cage without supplementary fixation. The cross section profile of the STALIF C® is similar to that of the vertebral body endplate with central cavity that can be packed with autograft or allograft. STALIF C® is manufactured from either PEEK-OPTIMA® LT1 supplied by Invibio or Zeniva ZA PEEK supplied by Solvay per ASTM F2026 with titanium alloy screws (Ti6Al4V, ASTM F136) and X-ray marker wires manufactured from unalloyed Tantalum (ASTM F560). The STALIF C-Ti™ is identical to this design with a titanium plasma spray coating (CPTi per ASTM F1580) on the device endplates.

The purpose of the subject 510(k) was to expand the indications to allow for use in multilevel procedures (i.e., two contiguous levels).

**Predicate Device:**

The subject STALIF C® and STALIF C-Ti™ intervertebral body fusion devices are substantially equivalent to predicate STALIF C® and STALIF C-Ti™ (K142079) with respect to indications, design, function, and materials.

**Substantial Equivalence:**

STALIF C®, STALIF C-Ti™ and predicate STALIF C®, STALIF C-Ti™ devices are identical in design, material, and performance. A comprehensive clinical literature review was conducted to assess any additional safety concern for the use of this device (accounting for its integrated fixation features) at two cervical levels.

**Performance Testing:**

A comprehensive, clinical literature review and PearlDiver reimbursement data have been provided to investigate the risks and benefits associated with the use of the STALIF C® devices in multilevel cervical procedures. Additionally, cadaveric biomechanical testing was conducted to support substantial equivalence.

**Conclusion:**

The Centinel Spine STALIF C® and STALIF C-Ti™ have been modified to expand the indications to permit use in multilevel cervical procedures (i.e., one or two contiguous levels). The 510(k) demonstrates substantial equivalence to predicate devices.

**Indications for Use**

510(k) Number (if known)

K150053

Device Name

STALIF C® and STALIF C-Ti™

Indications for Use (Describe)

The STALIF C® and STALIF C-Ti™ devices are intended to be used as an intervertebral body fusion cage as a standalone system used with bone screws provided and requires no additional supplementary fixation systems. It is inserted between the vertebral bodies into the disc space at one or two contiguous levels from the C2/C3 disc space to the C7/T1 disc space for the treatment of cervical degenerative disc disease (defined as neck pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies). The device system is designed for use with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone graft, to facilitate fusion.

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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)

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

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