



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

NuVasive, Incorporated  
Ms. Olga Lewis  
Lead Specialist, Regulatory Affairs  
7475 Lusk Boulevard  
San Diego, California 92121

September 3, 2015

Re: K151167

Trade/Device Name: NuVasive® PEEK Corpectomy System  
Regulation Number: 21 CFR 888.3060  
Regulation Name: Spinal intervertebral body fixation orthosis  
Regulatory Class: Class II  
Product Code: MQP  
Dated: August 4, 2015  
Received: August 7, 2015

Dear Ms. Lewis:

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

## Indications for Use

510(k) Number (if known)

K151167

Device Name

NuVasive® PEEK Corpectomy System

Indications for Use (Describe)

The Nuvasive® PEEK Corpectomy System is a partial or total vertebral body replacement device indicated for use in the thoracolumbar spine (T1 to L5) to replace a diseased or damaged vertebral body caused by tumor or fracture, to restore height of a collapsed vertebral body, and to achieve decompression of the spinal cord and neural tissues. The PEEK Corpectomy System is intended to be used with supplemental internal spinal fixation systems that are cleared by the FDA for use in the thoracic and lumbar spine. Allograft or autograft material may be used at the surgeon's discretion.

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.

**\*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\***

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## 510(k) Summary

In accordance with Title 21 of the Code of Federal Regulations, Part 807, and in particular 21 CFR §807.92, the following summary of information is provided:

### A. Submitted by:

Olga Lewis  
 Lead Specialist, Regulatory Affairs  
 NuVasive, Incorporated  
 7475 Lusk Blvd.  
 San Diego, California 92121  
 Telephone: (858) 909-3360

Date Prepared: August 4, 2015

### B. Device Name

|                            |  |
|----------------------------|--|
| Trade or Proprietary Name: | NuVasive® PEEK Corpectomy System             |
| Common or Usual Name:      | Spinal Vertebral Body Replacement Device     |
| Classification Name:       | Spinal Intervertebral Body Fixation Orthosis |

|                 |                   |
|-----------------|-------------------|
| Device Class:   | Class II          |
| Classification: | 21 CFR § 888.3060 |
| Product Code:   | MQP               |

### C. Predicate Devices

The subject *PEEK Corpectomy System* is substantially equivalent to a primary predicate device, *NuVasive Mesh* (K032476), and additional predicate devices, *NuVasive X-Core® Expandable VBR System* (K142205), *Osteotech VBR* (K012254), *Medtronic Verte-Stack® Spinal System* (K070173) and *Novel VBR Spinal System* (K050553).

### D. Device Description

The *NuVasive PEEK Corpectomy System* is a vertebral body replacement system manufactured from Polyetheretherketone (PEEK) Optima LT-1 conforming to ASTM F2026. The *PEEK Corpectomy System* is made up of two primary components: a core and a set of endcaps. The core is offered in a variety of shapes and sizes to suit individual pathology and anatomical conditions of the patient. The modular endcaps are offered in multiple footprints and lordosis options.

The device contains pins made of either titanium alloy (Ti-6Al-4V) conforming to ASTM F136 or ISO 5832-3 or tantalum conforming to ASTM F560 or ISO 13782 to serve as radiopaque markers. The System is provided non-sterile, and is designed to be sterilized by the user before each use.

### E. Indications For Use

The *NuVasive® PEEK Corpectomy System* is a partial or total vertebral body replacement device indicated for use in the thoracolumbar spine (T1 to L5) to replace a diseased or damaged vertebral body caused by tumor or fracture, to restore height of a collapsed vertebral body, and to achieve decompression of the spinal cord and neural tissues. The *PEEK Corpectomy System* is intended to be used with supplemental internal spinal fixation

systems that are cleared by the FDA for use in the thoracic and lumbar spine. Allograft or autograft material may be used at the surgeon's discretion.

**F. Technological Characteristics**

The subject *PEEK Corpectomy System* is substantially equivalent to other predicate devices cleared by the FDA for commercial distribution in the United States. The subject device was shown to have equivalent technological characteristics to its predicate devices through comparison in areas including design, intended use, material composition, and function. This device does not contain software or electrical equipment.

**G. Performance Data**

Nonclinical testing was performed to demonstrate that the subject *PEEK Corpectomy System* is substantially equivalent to other predicate devices. The following testing and analysis was performed:

- Static and dynamic axial compression per ASTM F2077
- Static and dynamic torsion per ASTM F2077
- Push-out testing
- Subsidence analysis

The results demonstrate that the subject *PEEK Corpectomy System* is substantially equivalent to predicate devices. No clinical studies were conducted.

**H. Conclusions**

Based on the indications for use, technological characteristics, mechanical testing, and comparison to predicate devices, the subject *PEEK Corpectomy System* has been shown to be substantially equivalent to legally marketed predicate devices for its intended use.