

K992147

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FEB 28 2000

Section 7 - 510(k) Summary of Safety and Effectiveness

7.1
Statement This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and CFR 807.92

7.2
Submitter Advanced Spine Technology, Inc.
3645 Grand Avenue, Suite 304
Oakland, CA. 96410

7.3
Company Susan Finneran
Contact QA/ RA Manager (Endius, Inc.)
508-643-0983
Acting as a consultant to Advanced Spine Technology, Inc.

7.4
Device Name **Proprietary Name:**
Triple-Fix Spinal Fixation System
Common Name:
Pedicle Screw System , Non-pedicle spinal fixation system
Classification Name:
Spinal Pedicle Screw (MNI), Spinal Interlaminar fixation orthosis (KWP),
Spondylolithesis Spinal Fixation Device System (MNH)

7.5
Predicate Isola Spinal System (Acromed, Cleveland, OH.)
Legally Mirage Spinal System (Alphatec, Inc., Palm Desert , CA.)
Marketed
Devices

K 992,47
12/10/83

7.6
Device
Description

The Advanced Spine Technology Triple-Fix Spinal System is a system that is intended to be used for posterior lumbar fusion procedures. The system is manufactured from titanium which complies with ASTM F136. The components, which are included as part of the system, include screws, rods, plates, and accessory connection components.

7.7
Device
Indications and
Intended use

The Triple-Fix Spinal System is a pedicle screw system 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 the thoracic, lumbar, and sacral spine: degenerative spondylolithesis with objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudoarthrosis).

The posterior Triple-Fix Spinal System is also indicated for pedicle screw fixation for severe spondylolithesis (grades 3 and 4) at L5-S1, in skeletally mature patients, when autogenous bone graft is used, when affixed to the posterior lumbosacral spine, and intended to be removed after solid fusion is attained. Levels of fixation are from L3-S1.

The posterior Triple-Fix System, when not used with pedicle screws is indicated for hook, wire, and /or sacral screw fixation from T1 to the ilium sacrum. The non-pedicle screw indications are spondylolithesis, degenerative disc disease, (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), deformities (scoliosis, lordosis and kyphosis), tumor, fracture, and previous failed fusion surgery.

7.8
Substantial
Equivalence

The Triple-Fix Spinal System is substantially equivalent to the Isola Spinal System (Acromed, Cleveland, OH.) and the Mirage Spinal System (Sofamor Danek, Memphis, TN.) Following is a table which describes the features of the new and the predicate systems which indicate substantial equivalence. Testing was also completed as per ASTM F1717 in order to demonstrate equivalence. The results of testing are included in appendix 1 of the submission.

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7.9 Table of Substantial Equivalence

Device Name	The Frank Fix Spinal System	Mirage Spinal System	Isola Spinal System
Product Components	Screws, Connectors, Plates, Rods, and offset Connectors.	Hooks, screws, rods, and offset connectors.	Hooks, Screws, Connectors, Plates, Rods, and offset connectors.
Indications for Use	See above	Identical	Identical
Materials	Stainless Steel or Titanium	Stainless Steel or Titanium	Stainless Steel or Titanium
Product Labeling	Instructions for use and box labeling including all of the necessary warning statements	Instructions for use and box labeling including all of the necessary warning statements	Instructions for use and box labeling including all of the necessary warning statements
Packaging/ Sterilization	Non-sterile, single use only	Non-sterile, single use only	Non-sterile, single use only

Applicant 

Date 2/25/00



FEB 28 2000

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

Ms. Susan Finneran
QA/RA Manager
Representing Advance Spine Technologies, Incorporated
Endius, Incorporated
23 West Bacon Street
Plainville, Massachusetts 02762

Re: K992147
Trade Name: Triple-Fix Spinal Fixation System
Regulatory Class: II
Product Code: MNI, MNH and KWP
Dated: November 29, 1999
Received: November 30, 1999

Dear Ms. Finneran:

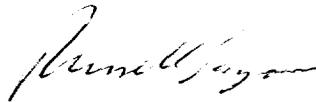
We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of 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). You may, therefore, market the device, subject to the general control provisions of the Act. The general control provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or at (301) 443-6597, or at its Internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,



for James E. Dillard III
Acting Director
Division of General and
Restorative Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

510(k) Number (if known): K992147

Device Name: Triple-Fix Spinal Fixation System (Stainless Steel and Titanium)

Indications for Use:

The Triple-Fix Spinal System is a pedicle screw system 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 the thoracic, lumbar, and sacral spine: degenerative spondylolithesis with objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudoarthrosis).

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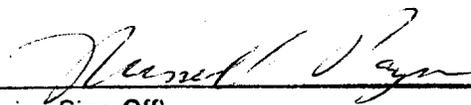
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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Optional Format 3-10-98)

(Posted July 1, 1998)



(Division Sign-Off)
Division of General Restorative Devices
510(k) Number K992147

Prescription Use
(Per 21 CFR 801.109)