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510(k) Summary

100123

# DCT 6 2010

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Contact:	Lino Tsai
	Acumed, LLC
	5885 NW Cornelius Pass Rd.
	Hillsboro, OR 97124-9432
	(503) 627-9957 x 1370
	FAX: (503) 686-7102
Device Trade Name:	Acumed Wrist Arthrodesis Plate System
Manufacturer:	Acumed, LLC
	5885 NW Cornelius Pass Rd.
	Hillsboro, OR 97124-9432
Common Name:	Plate, Fixation, Bone
Classification:	21 CFR 888.3030
Class:	II
Product Code:	HRS
Date:	September 24, 2010

#### Indications for Use:

The Acumed Wrist Arthrodesis Plate System is intended for wrist arthrodesis and fractures of other small bones. Specific indications include post-traumatic arthritis of the joints of the wrist, rheumatoid wrist deformities requiring restoration, complex carpal instability, post-septic arthritis of the wrist, severe unremitting wrist pain related to motion, brachial plexus nerve palsies, tumor resection, and spastic deformities.

#### **Device Description:**

The Acumed Wrist Arthrodesis Plates are pre-contoured with an anatomic design with multiple wrist extension positions. The plates have a combination of distal and proximal holes which utilize 2.3 mm and 3.5 mm cortical locking and non-locking screws.

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**Technological Characteristics:** 

The plates and screws are made of titanium alloy, Ti 6AI 4V, per ASTM F136. The plates are supplied in multiple wrist positions. The predicate devices share these dimensional and material characteristics. There are no technological characteristics that raise new issues of safety or effectiveness.

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An engineering analysis of plate strength was conducted to compare the Acumed Wrist Arthrodesis Plate to the predicate device. Calculations based on cross-sect6ional area and plate material showed that the Acumed Wrist Arthrodesis Plate is able to withstand more load than the predicate device before plastic deformation.

Mechanical testing of distal screw pull-out strength was conducted comparing the Acumed Wrist Arthrodesis Plate to the predicate device. The results showed that the Acumed Wrist Arthrodesis Plate required equivalent force and significantly more energy to cause distal screw pull-out than the predicate device.

#### Predicate Device(s):

Synthes LCP Wrist Fusion Plate - K042355 Synthes Small Titanium Wrist Fusion Plate - K023879 Synthes Straight Wrist Fusion Plate - K011458 Synthes Wrist Fusion Plate - K000558 DVO Wrist Fusion Plate - K052754 KMI Wrist Fusion System - K991873

Based upon the similarities of the Acumed Wrist Arthrodesis Plate System and the predicate devices studied, the safety and effectiveness of the Acumed Wrist Arthrodesis Plate System is substantially equivalent to the predicate devices referenced.



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

Acumed LLC % Ms. Lino Tsai Regulatory Specialist 5885 Northwest Cornelius Pass Road Hillsboro, Oregon 97124-9432

DCT 6 2010

Re: K100123

Trade/Device Name: Acumed Wrist Arthrodesis Plate System Regulation Number: 21 CFR 888.3030 Regulation Name: Single/multiple component metallic bone fixation appliances and accessories Regulatory Class: Class II Product Code: HRS Dated: August 26, 2010 Received: August 27, 2010

Dear Ms. Tsai:

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 <u>Federal Register</u>.

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

### Page 2 - Ms. Lino Tsai

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 go to http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. 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 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,

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

Enclosure



Innovative Solutions

Indications for Use

510(k) Number (if known): とんのしろ

**Device Name: Acumed Wrist Arthrodesis Plate System** 

Indications for Use:

The Acumed Wrist Arthrodesis Plate System is intended for wrist arthrodesis and fractures of other small bones. Specific indications include post-traumatic arthritis of the joints of the wrist, - rheumatoid wrist deformities requiring restoration, complex carpal instability, post-septic arthritis of the wrist, severe unremitting wrist pain related to motion, brachial plexus nerve palsies, tumor resection, and spastic deformities.

Prescription Use <u>X</u> (Part 21 CFR 801 Subpart D) AND/OR Over-The-Counter Use \_\_\_\_\_ (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Devision Sign-Off)

Division of Surgical, Orthopedic, and Restorative Devices

510(k) Number <u>K100123</u>

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