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K033071  
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3. **Summary of Safety and Effectiveness Information [510(k) Summary]**

<b>Sponsor</b>	Synthes (USA) 1690 Russell Road Paoli, PA 19301
<b>Company Contact</b>	Lisa M. Boyle (610) 647-9700
<b>Name of the Device</b>	Synthes Titanium Cannulated Humeral Nail System
<b>Device Classification(s)</b>	Class II, §888.3020 – Intramedullary Fixation Rod
<b>Device Description</b>	The Synthes Titanium Cannulated Humeral Nail System consists of cannulated titanium intramedullary rods, and end caps in a variety of sizes designed for treatment of various humeral fractures. A 2.0mm guide wire is used with the system.
<b>Indications</b>	<p>The Synthes Titanium Cannulated Humeral Nail System is intended to aid in the alignment and stabilization of humeral fractures to include:</p> <ul style="list-style-type: none"><li>• Diaphyseal fractures of the humeral shaft</li><li>• Fractures of the proximal humerus</li><li>• Proximal humeral fractures with diaphyseal extension</li><li>• Impending pathologic fractures</li><li>• Malunions and nonunions</li></ul>
<b>Substantial Equivalence</b>	<p>Documentation is provided which demonstrated the Synthes Titanium Cannulated Humeral Nail System to be substantially equivalent to other legally marketed devices.</p> <p>The term “substantial equivalence” as used in this 510(k) notification is limited to the definition of substantial equivalence found in the Federal Food, Drug and Cosmetic Act, as amended and as applied under 21CFR 807, Subpart E under which a device can be marketed without premarket approval or reclassification. A determination of substantial equivalency under this notification is not intended to have any bearing whatsoever on the resolution of patent infringement suits or any other patent matters. No statements related to, or in support of substantial equivalence herein shall be construed as an admission against interest under the US Patent Laws or their application by the courts.</p>
<b>Material</b>	Titanium Alloy



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

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Ms. Lisa M. Boyle  
Regulatory Associate  
Synthes (USA)  
1690 Russell Road  
P.O. Box 1766  
Paoli, Pennsylvania 19301

Re: K033071

Trade/Device Name: Synthes (USA) Titanium Cannulated Humeral Nail System  
Regulation Number: 21 CFR 888.3030  
Regulation Name: Single/multiple component metallic bone fixation appliances and accessories  
Regulatory Class: II  
Product Code: JDS  
Dated: September 26, 2003  
Received: September 29, 2003

Dear Ms. Boyle:

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.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), 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 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

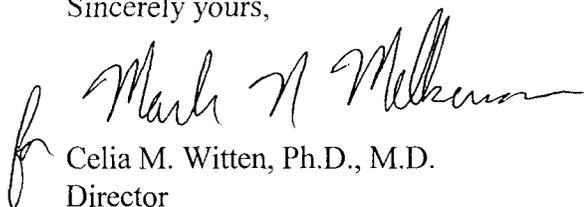
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); 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.

Page 2 – Ms. Lisa M. Boyle

This letter will allow you to begin marketing your device as described in your Section 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), please contact the Office of Compliance at (301) 594-4659. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). 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) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in black ink, appearing to read "Celia M. Witten". The signature is written in a cursive style with a large initial "C" and "W".

Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

2. **Indications for Use Statement**

510(k) Number (if known):

K033071

Device Name:

Synthes (USA) Titanium Cannulated Humeral Nail System

Indications for Use:

The Synthes Titanium Cannulated Humeral Nail System is intended to aid in the alignment and stabilization of humeral fractures to include:

- Diaphyseal fractures of the humeral shaft
- Fractures of the proximal humerus
- Proximal humeral fractures with diaphyseal extension
- Impending pathologic fractures
- Malunions and nonunions

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use \_\_\_\_\_  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use \_\_\_\_\_

*for Mark A. Millerson*  
\_\_\_\_\_  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number \_\_\_\_\_

K033071