

**510(K) Summary**

**JUN 14 2013**

**CarboFix Orthopedics Ltd.**

**Piccolo Composite® Nailing System – Ankle Arthrodesis**

**Applicant Name**

CarboFix Orthopedics Ltd.

11 Ha'hoshlim St., Herzeliya 46724, Israel

**Contact Person**

Yael Rubin

CarboFix Orthopedics Ltd.

11 Ha'hoshlim St., Herzliya 46724, Israel

Tel: +972 9 9511511, Fax: +972 9 9548939

**Date Prepared**

May 2013

**Trade/Proprietary Name**

Piccolo Composite Nailing System

**Common Name**

Intramedullary Nailing System

**Classification Name**

Rod, Fixation, Intramedullary and Accessories (21 CFR §888.3020; Product Code HSB)

**Predicate Devices**

- Piccolo Composite Nailing System – Tibia and Femur (CarboFix Orthopedics Ltd.; K102369, K111056)
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- Phoenix Ankle Arthrodesis Nailing System (Biomet Trauma; K081243, K091976)
- Valor® Ankle Fusion Nail System (Wright Medical Technology, Inc.; K090857)

### **Intended Use/Indications for Use**

#### Piccolo Composite Ankle Arthrodesis Nails

The Piccolo Composite Ankle Arthrodesis Nails are indicated for tibiotalocalcaneal arthrodesis (fusion).

Specific indications include:

1. Avascular necrosis of the talus
2. Failed total ankle arthroplasty
3. Trauma (malunited tibial pilon fracture)
4. Severe deformity or instability as a result of talipes equinovarus, cerebral vascular accident, paralysis or other neuromuscular disease
5. Revision ankle arthrodesis
6. Neuroarthropathy
7. Rheumatoid arthritis
8. Osteoarthritis
9. Pseudoarthrosis
10. Post-traumatic arthrosis
11. Previously infected arthrosis
12. Charcot foot
13. Severe endstage degenerative arthritis
14. Severe defects after tumor resection
15. Pantalar arthrodesis

### **System Description**

The Piccolo Composite Ankle Arthrodesis Nailing System includes nails, interlocking screws and a set of instruments.

The Piccolo Composite Ankle Arthrodesis Nail is a cannulated, cylindrical rod, made of carbon fiber reinforced polymer. Nail diameter ranges from 10mm to 12mm, with lengths

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in the range of 160mm to 240mm. The nails provide for holes at the proximal and distal sections, designed for the insertion of self-tapping, titanium-alloy-made, interlocking screws.

### **Substantial Equivalence**

The Piccolo Composite Nailing System intended use, design, materials, technological characteristics, and principles of operation are substantially equivalent to those of the predicate devices, as applicable.

Evaluation of expected performance characteristics, such as bending and torsion parameters for the Piccolo Composite ankle arthrodesis nails was based on comparison to predicate devices, per ASTM F 1264 - Standard Specification and Test Methods for Intramedullary Fixation Devices. Evaluation in support of MR Conditional labeling parameters was also provided. All the above demonstrate that the device is safe and effective for its intended use.



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

June 14, 2013

CarboFix Orthopedics Limited  
% Ms. Yael Rubin  
Director of Regulatory Affairs  
11 Ha'hoshlim Street  
Herzeliya 46724  
Israel

Re: K123810

Trade/Device Name: Piccolo Composite<sup>®</sup> Nailing System  
Regulation Number: 21 CFR 888.3020  
Regulation Name: Intramedullary fixation rod  
Regulatory Class: Class II  
Product Code: HSB  
Dated: May 12, 2013  
Received: May 14, 2013

Dear Ms. Rubin:

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 301), please contact 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>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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 CDRIH'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,

**Erin L. Keith**

For

Mark N. Melkerson  
Director

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Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indication for Use

**510(K) Number (if known):** \_\_\_\_\_

**Device Name:** Piccolo Composite<sup>®</sup> Nailing System

**Indication for Use:**

Piccolo Composite Ankle Arthrodesis Nails

The Piccolo Composite Ankle Arthrodesis Nails are indicated for tibiotalarcalcaneal arthrodesis (fusion).

Specific indications include:

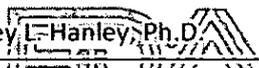
1. Avascular necrosis of the talus
  2. Failed total ankle arthroplasty
  3. Trauma (malunited tibial pilon fracture)
  4. Severe deformity or instability as a result of talipes equinovarus, cerebral vascular accident, paralysis or other neuromuscular disease
  5. Revision ankle arthrodesis
  6. Neuroarthropathy
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  13. Severe endstage degenerative arthritis
  14. Severe defects after tumor resection
  15. Pantalar arthrodesis
- 

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

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

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
 Casey L. Hanley, Ph.D.  
 Division of Orthopedic Devices

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