



May 18, 2022

4WEB Medical, Inc.  
% Richard Jansen  
President  
Silver Pine Consulting  
3851 Mossy Oak Drive  
Fort Myers, Florida 33905

Re: K220463

Trade/Device Name: Osteotomy Truss System (OTS)

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: January 3, 2022

Received: February 17, 2022

Dear Richard Jansen:

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. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. 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) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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 <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email ([DICE@fda.hhs.gov](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Shumaya Ali, MPH  
Assistant Director  
DHT6C: Division of Restorative, Repair  
and Trauma Devices  
OHT6: Office of Orthopedic Devices  
Office of Product Evaluation and Quality  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K220463

Device Name

Osteotomy Truss System (OTS)

Indications for Use (Describe)

The Osteotomy Truss System (OTS) is intended to be used for internal bone fixation for bone fractures or osteotomies in the foot, such as:

- Opening wedge osteotomies of the bones of the foot including osteotomies for Hallux Valgus
- Opening wedge of Medial Cuneiform or Cotton osteotomies
- Lateral Column Lengthening (Evans Lengthening Osteotomy or Calcaneal Z Osteotomy)
- Metatarsal/Cuneiform osteotomies
- Nonunion of arthrodesis of the Midfoot including Metatarsal/Cuneiform osteotomies (TMT or Lapidus)
- Hindfoot osteotomies

The device is intended for use with supplemental fixation.

The Osteotomy Truss System is not intended for use in the spine.

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)

### CONTINUE ON A SEPARATE PAGE IF NEEDED.

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# K220463

## 510(k) Summary

**Date Prepared:** February 16, 2022  
**Contact:** Jessee Hunt, President  
4WEB, Inc.  
2801 Network Blvd., Suite 620  
Frisco, TX 75034  
Phone: (800) 285-7090  
Fax: 972-488-1816

**Regulatory Contact:** Rich Jansen, Pharm. D.  
Silver Pine Consulting, LLC  
richj@s-pineconsulting.com

**Trade Name:** Osteotomy Truss System (OTS)  
**Product Class:** Class II  
**Classification:** 21 CFR §888.3030  
**Common Name:** Single/Multiple Component Metallic Bone Fixation Appliances and Accessories  
**Product Codes:** HRS  
**Panel Code:** 87

### **Purpose:**

The purpose of this submission is to update the design of the Osteotomy Truss System (OTS) implants and instruments and to provide the OTS implants as sterile packaged.

### **Indications for Use:**

The Osteotomy Truss System (OTS) is intended to be used for internal bone fixation for bone fractures or osteotomies in the foot, such as:

- Opening wedge osteotomies of the bones of the foot including osteotomies for Hallux Valgus
- Opening wedge of Medial Cuneiform or Cotton osteotomies
- Lateral Column Lengthening (Evans Lengthening Osteotomy or Calcaneal Z Osteotomy)
- Metatarsal/Cuneiform osteotomies
- Nonunion of arthrodesis of the Midfoot including Metatarsal/Cuneiform osteotomies (TMT or Lapidus)
- Hindfoot osteotomies

The device is intended for use with supplemental fixation.

The Osteotomy Truss System is not intended for use in the spine.

**Device Description:**

The Osteotomy Truss System (OTS) consists of three implant designs in a variety of footprints and opening wedge height options to accommodate the patient's anatomy. It is intended to be used with supplemental fixations.

The device is an open architecture truss design mathematically formulated to provide structural support with open space throughout the implant for bone growth and fusion. The 4WEB additive manufacturing process provides a hierarchical surface roughness. The implant is made from Ti6Al4V alloy.

**Predicate Device(s):**

The primary predicate device is the 4WEB Medical Osteotomy Truss System (K172294).

Other predicate device: 4WEB Medical Osteotomy Bone Wedge (K130185)

Reference Device: 4WEB Medical Lateral Spine Truss System (K211388)

**Non-Clinical Performance Testing Standards:**

Validated finite element analysis demonstrated that the product line extension for the Osteotomy Truss System (OTS) does not introduce a new worst-case compared to the previously cleared 4WEB Osteotomy Truss System devices for mechanical properties of the device.

Performance testing has been completed per the following standards for the combined Osteotomy Truss System (OTS):

- Static axial compression per ASTM F2077
- Dynamic axial compression fatigue per ASTM F2077
- Expulsion testing per ASTM F-04.25.02.02
- MR image artifact per ASTM F2119
- MR induced heating per ASTM F2182
- MR induced torque per ASTM F2213
- MR induced displacement force per ASTM F2052

The results of this non-clinical testing show that the strength of the OTS Device is sufficient for its intended use and is substantially equivalent to legally marketed predicate devices.

**Clinical Performance Testing:**

Clinical testing was not necessary for the determination of substantial equivalence.

**Comparison of Technological Characteristics:**

4WEB, Inc. has compared these devices to the previously cleared predicate devices in regard to indications for use, materials, function, sizes and simulated testing. The subject device implants introduce design modifications such as addition of a central hole, addition of an insertion feature, and a dorsal face modification. The subject device will also be provided in sterile packaging. The 4WEB OTS devices included in this submission are composed of the same materials, have the same manufacturing process, same intended use, and are intended to be inserted using the same surgical procedure as the primary predicate device. These comparisons and performance testing demonstrate substantial equivalence to the predicate devices.

**Conclusion:**

4WEB, Inc. concludes that the OTS device is substantially equivalent to the predicate devices and raise no new questions of safety or effectiveness.