



Food and Drug Administration
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Arthrex, Incorporated
Leon Brown, Ph.D.
Regulatory Project Manager
1370 Creekside Boulevard
Naples, Florida 34108-1945

February 19, 2016

Re: K153586

Trade/Device Name: Arthrex iBalance[®] TKA System

Regulation Number: 21 CFR 888.3565

Regulation Name: Knee joint patellofemorotibial metal/polymer porous-coated uncemented prosthesis

Regulatory Class: Class II

Product Code: MBH, JWH, OIY

Dated: December 27, 2015

Received: December 29, 2015

Dear Dr. Brown:

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 Parts 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 801), please contact the Division of Industry and Consumer Education 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" (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 Industry and Consumer Education 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,

Mark N. Melkerson -S

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

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Form Approved: OMB No. 0910-0120
Expiration Date: January 31, 2017
See PRA Statement below.

Indications for Use

510(k) Number (if known)

K153586

Device Name

Arthrex iBalance® TKA System

Indications for Use (Describe)

The Arthrex iBalance® TKA System is indicated for use in individuals undergoing surgery for:

- Painful, disabling joint disease of the knee resulting from degenerative arthritis, rheumatoid arthritis or post-traumatic arthritis;
- Post-traumatic loss of knee joint configuration and function;
- Moderate varus, valgus, or flexion deformity in which the ligamentous structures can be returned to adequate function and stability;
- Revisions of previous unsuccessful knee replacement or other procedure.

Additional indications for posteriorly stabilization components:

- Ligamentous instability requiring implant bearing surfaces with increased constraint;
- Absent or non-functioning posterior cruciate ligament.

These devices are single use only and are intended for implantation with bone cement, with the exception of porous coated femoral components which can be used cemented or uncemented (biological fixation).

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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2.5 510(K) SUMMARY

<i>Date Summary Prepared</i>	February 3, 2016
<i>Manufacturer/Distributor/Sponsor</i>	Arthrex, Inc. 1370 Creekside Boulevard Naples, FL 34108-1945 USA
<i>510(k) Contact</i>	Leon Brown II, Ph.D. Regulatory Project Manager Arthrex, Inc. 1370 Creekside Boulevard Naples, FL 34108-1945 USA Telephone: 239/643.5553, ext. 72028 Fax: 239/598.5508 Email: Leon.Brown@Arthrex.com
<i>Trade Name</i>	<i>Arthrex iBalance® TKA System</i>
<i>Common Name</i>	Knee Prosthesis
<i>Primary Product Code - Classification Name CFR</i>	MBH 888.3565: Knee joint patellofemorotibial metal/polymer porous-coated uncemented prosthesis.
<i>Secondary Product Code - Classification Name CFR</i>	JWH 888.3560: Prosthesis, Knee, Patellofemorotibial, Semi- Constrained, Cemented, Polymer/Metal/Polymer
<i>Tertiary Product Code - Classification Name CFR</i>	OIY 888.3560: Prosthesis, Knee, Patellofemorotibial, Semi- Constrained, Cemented, Polymer/Metal/Polymer
<i>Predicate Device</i>	K081127: Arthrex iBalance® TKA System K133854: Arthrex iBalance® TKA System K143047: Arthrex iBalance® Patella Implant, Dome K152252: Arthrex iBalance® TKA System K152382: Arthrex iBalance® TKA System
<i>Purpose of Submission</i>	This traditional 510(k) premarket notification is submitted to obtain clearance for a line extension to the Arthrex iBalance® TKA System which would add Vitamin E blended tibial bearing components and Vitamin E blended patella components to the system.
<i>Device Description</i>	The Arthrex iBalance® TKA System consists of femoral components, tibial tray, tibial bearing components and patellar components. All components are available in a range of sizes to fit varying anatomical requirements. Femoral components and tibial bearing components are available in both posteriorly stabilized (PS) and cruciate retaining (CR) configurations. Femoral components are available in left and right versions, as well as cemented

and uncemented (biological fixation) versions and are designed to work with the Arthrex dome patella components. Tibial bearing components are offered in PS, CR and CR Plus configurations.

The proposed Arthrex iBalance® TKA System line extension of this submission adds Vitamin E blended tibial bearing components and Vitamin E blended patella components to the product offering.

Intended Use

The ***Arthrex iBalance® TKA System*** is indicated for use in individuals undergoing surgery for:

- Painful, disabling joint disease of the knee resulting from degenerative arthritis, rheumatoid arthritis or post-traumatic arthritis;
- Post-traumatic loss of knee joint configuration and function
- Moderate varus, valgus, or flexion deformity in which the ligamentous structures can be returned to adequate function and stability;
- Revisions of previous unsuccessful knee replacement or other procedure.

Additional indications for posteriorly stabilized components:

- Ligamentous instability requiring implant bearing surfaces with increased constraint;
- Absent or non-functioning posterior cruciate ligament.

These devices are single use only and are intended for implantation with bone cement, with the exception of porous coated femoral components which can be used cemented or uncemented (biological fixation).

Substantial Equivalence Summary

The proposed ***Arthrex iBalance® TKA System*** adds Vitamin E blended tibial bearing components and Vitamin E blended patella components to the existing system. The ***Arthrex iBalance® TKA System*** is substantially equivalent to the predicate device as the dimensions, general design, intended use, indications for use, technological characteristics, packaging, storage and sterilization remain the same. Any differences between the ***Arthrex iBalance® TKA System*** and the predicate are considered minor and do not raise questions concerning safety and effectiveness.

The wear, fatigue and shear testing demonstrates the Arthrex iBalance® TKA System remains in compliance with FDA Guidance and industry standards.

Based on the indication for use, technological characteristics, and the summary of mechanical testing data submitted, Arthrex, Inc. has determined that the *Arthrex iBalance® TKA System* is substantially equivalent to currently marketed predicate devices.
