

SEP 20 2005

---

**Mayfield® Infinity Skull Clamp  
510(k) Summary**

**Submitter's name and address:**

Integra LifeSciences Corporation  
4900 Charlemar Drive, Building A  
Cincinnati, Ohio 45227 USA

**Contact person and telephone number:**

Donna R. Wallace  
Director Regulatory Affairs  
(609) 936-2397

**Date prepared:** May 24, 2005

**Name of device:**

Proprietary Name: Mayfield® Infinity Skull Clamp  
Common Name: Head Holder or Skull Clamp  
Classification Name: Neurological Head Holder

**Substantial Equivalence:**

The Mayfield® Infinity Skull Clamp is substantially equivalent to the Modified Mayfield® Skull Clamp, Mayfield A2000 Skull Clamp, and the DORO® Skull Clamp.

**Indications Use:**

The Mayfield® Infinity Skull Clamp is placed on the patient's skull to hold their head and neck securely in a particular position when rigid fixation is desired. The clamp is indicated for use in open and percutaneous craniotomies as well as spinal surgery when rigid fixation is necessary. The accessories provided with the skull clamp also allow it to be used where stabilization is desired instead of complete fixation.

**Device Description:**

The Mayfield® Infinity Skull clamp is designed to be a multifunctional cranial stabilization/fixation device. It's basic configuration delivers standard Mayfield Skull Clamp performance. The accessories enhance the clamp's capability and enable it to provide rigid skeletal fixation in conjunction with the Infinity Support System. The contours and length of the skull clamp uprights allow the clamp to maintain a lower profile than standard clamps. When this clamp is used to provide auxiliary skeletal fixation, the Reduced Load Torque Screw may be used for procedures that demand lower pin impingement forces. The device allows the surgeon to select the most suitable combination of components for each procedure and is designed to allow the surgeon freedom in positioning the fixation pins. Avoidance of critical areas of the skull is facilitated by a swiveling rocker arm that also rotates 360°. To simplify patient re-positioning after pin impingement, the rocker may be rotated without adjustment of the impingement force imposed by the Torque Screw.

**Conclusion:**

The Mayfield® Infinity Skull Clamp is substantially equivalent to the commercially marketed predicate device and does not raise new issues of safety and effectiveness.



SEP 20 2005

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Ms. Donna R. Wallace, RAC  
Director Regulatory Affairs  
Integra LifeSciences Corporation  
311 Enterprise Drive  
Plainsboro, New Jersey 08536

Re: K051440  
Trade/Device Name: MAYFIELD® Infinity Skull Clamp  
Regulation Number: 21 CFR 882.4460  
Regulation Name: Neurosurgical head holder (skull clamp)  
Regulatory Class: II  
Product Code: HBL  
Dated: September 9, 2005  
Received: September 12, 2005

Dear Ms. Wallace:

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. Donna R. Wallace, RAC

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 (240) 276-0115. 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 that reads "Barbara" followed by a stylized flourish. Below the signature, the initials "fm" are written in a smaller, simpler hand.

Mark N. Melkerson  
Acting Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

K051440

510(k) Number (if known):

Device Name: MAYFIELD® Infinity Skull Clamp

### Indications For Use:

The Mayfield® Infinity Skull Clamp is placed on the patient's skull to hold their head and neck securely in a particular position when rigid fixation is desired. The skull clamp is indicated for use in open and percutaneous craniotomies as well as spinal surgery when rigid fixation is necessary. The accessories provided with the skull clamp also allow it to be used where stabilization is desired instead of complete fixation.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

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

---

Concurrence of CDRH, Office of Device Evaluation (ODE)

Barbara Buchner  
(Division Sign-Off)

**Division of General, Restorative,  
and Neurological Devices**

510(k) Number K051440

Page 1 of 1