JOINT FUSION/LIMB GROWTH KEEL PLATE

MEDICAL DEVICES

Small, thin orthopedic bone plate for use in joint fusion procedures that causes less damage to surrounding soft tissue and offers greater torsional stiffness than traditional orthopedic plates.

TECHNOLOGY TYPE

Class I/II
Orthopedics

STAGE OF DEVELOPMENT

- Prototype developed.
- Testing and optimization still required.

IP PROTECTION

US Continuation Issued
Bone Plate and Keel Systems
US8657820B2

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Reference Numbers:
U-4676, U-5547

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TECHNOLOGY SUMMARY

Almost 200,000 orthopedic procedures involving metal bone plates are performed annually in the United States. These bone plates facilitate healing in fractured bones by holding the bone in place. Bone plates, however, are often oversized, which causes irritation in the surrounding soft tissue and hinders bone growth.

A new orthopedic bone plate, made of stainless steel or titanium, has been developed for securing bones during joint fusion procedures. This plate is designed for procedures with limited soft tissue coverage and avoids tissue damage caused by traditional plates. The internal side of the plate includes a T-shaped cross-sectional keel that has a thin edge for enhanced integration in the bone. The plate can withstand high levels of torsion and 3-point bends, increasing its applicability in small joint procedures. The keel plate can also be used to correct limb deformities in children.

FEATURES AND BENEFITS

- Improves outcome consistency.
- Promotes enhanced bone growth.
- Reduces tissue irritation.
- Increases torsional stiffness.
- Facilitates linear compression.

INVENTOR PROFILE

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