

Pangea[®]

PeriPRO[™] Femur Plates

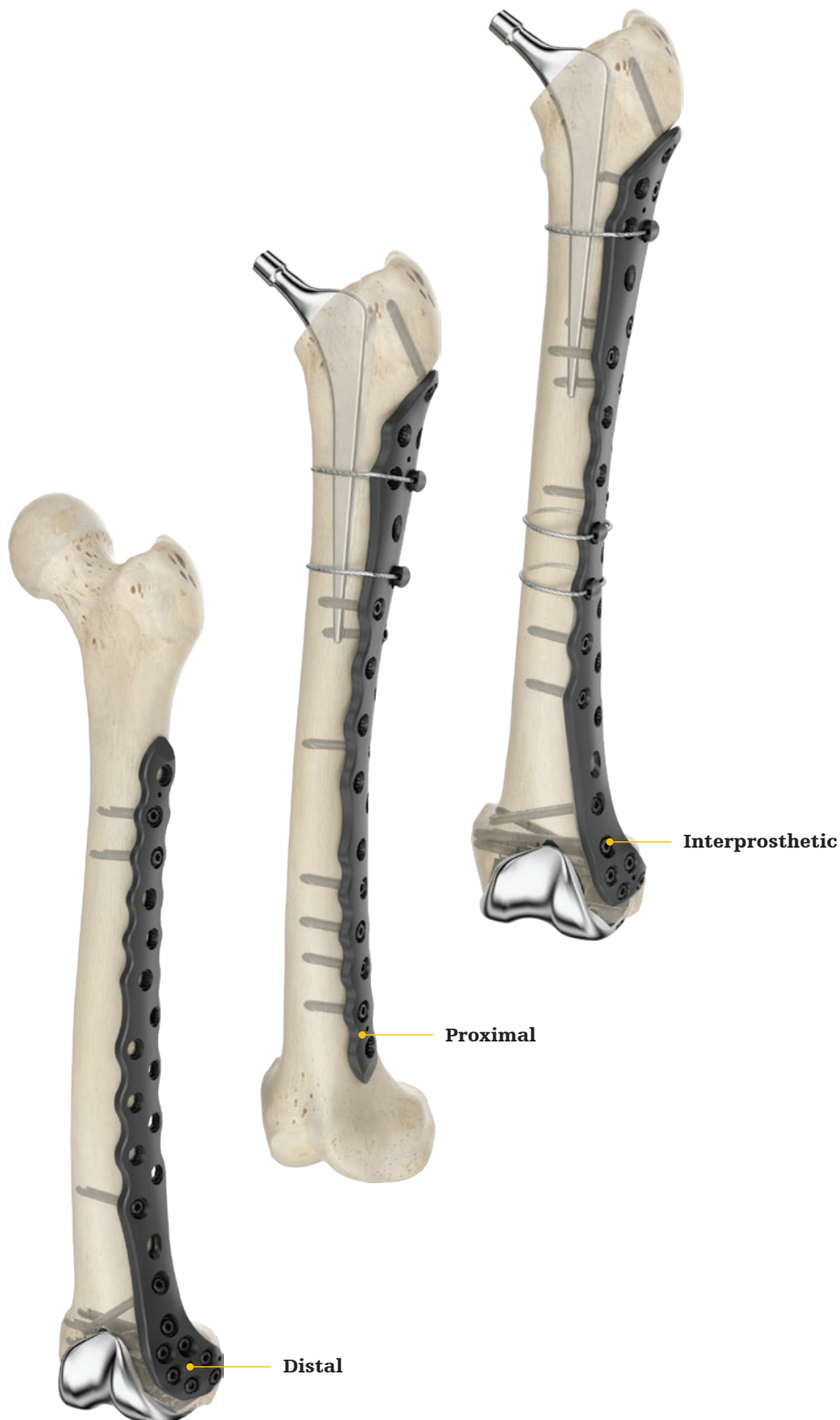
Design rationale



Pangea PeriPRO™ Femur Plates

Design rationale

stryker



Clinical corner

- Incidence of primary THA and TKA in Germany is estimated to increase by +23% and +45% by 2040, respectively.¹
- Incidence of TKA in France is estimated to increase by +33% by 2050.²
- The PeriPRO Lateral Femur plates are designed to provide traumatologists and joint replacement surgeons with a solution for complex, difficult-to-treat periprosthetic femur fractures (PPF).



Pangea PeriPRO™ Femur Plates

Design rationale

stryker

Interprosthetic Femur Plate



Thickness: 3.6mm to 6.5mm

Lengths: 320mm to 420mm

Proximal Femur Plate



Thicknesses: 1.5mm to 5.0mm

Lengths: 257mm to 371mm

Max. THA Stem Coverage: ≤100mm to 215mm

Distal Femur Plate



Thickness: 3.6mm to 9mm

Lengths: 173mm to 396mm

Max. TKA Stem Coverage: Up to 240mm

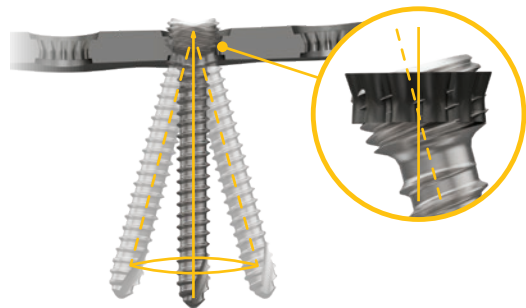
Variable angle locking

- Aim and lock the screw within a 30° cone
- Cobalt chrome (CoCr) locking screws allow the screw threads to form a definitive plate-screw interface by displacing the titanium alloy of the plate locking mechanism
- Accommodates up to 3 insertions if change of screw trajectory is needed



Titanium plates

- Titanium has a low modulus of elasticity that allows for interfragmentary movement^{3,4}
- Interfragmentary movement is known to influence callus formation, which is an important step in bone healing^{5,6}
- Titanium implants may result in fewer artifacts, allowing for a clearer CT image^{7,8}
- Titanium is well known for its favorable biocompatibility due to its ability to remain inert in physiological environments^{9,10}



References:

1. Rupp M, Lau E, et al. Projections of Primary TKA and THA in Germany From 2016 Through 2040. Clin Orthop Relat Res. 2020;478(7):1622-1633. doi: 10.1097/CORR.0000000000001214.
2. Le Stum M, Gicquel T, et al. Total knee arthroplasty in France: Male-driven rise in procedures in 2009-2019 and projections for 2050. Orthop Traumatol Surg Res. 2023;109(5):103463. doi: 10.1016/j.otsr.2022.103463. (Open access)
3. Schmidt U, Penzkofer R, et al. Implant Material and Design Alter Construct Stiffness in Distal Femur Locking Plate Fixation: A Pilot Study. Clin Orthop Relat Res. 2013;471(9):2808-14. doi: 10.1007/s11999-013-2867-0.
4. Pohler O. Unalloyed titanium for implants in bone surgery. Injury. 2000;31(Suppl 4):7-13. doi: 10.1016/s0020-1383(00)80016-9.
5. Henderson CE, Herzog MA, et al. 2010 Mid-America Orthopedic Association Physician in Training Award: Healing Complications are Common After Locked Plating for Distal Femurs. Clinical Orthopaedics and Related Research (2011) 469:1757-1765.
6. Beltran MJ, Collinge CA, et al. Stress Modulation of Fracture Fixation Implants. J Am Acad Orthop Surg. 2016;24(10):711-9. doi: 10.5435/JAAOS-D-15-00175.
7. Radzi S, Cowin G, et al. Metal artifacts from titanium and steel screws in CT, 1.5T and 3T MR images of the tibial Pilon: a quantitative assessment in 3D. Quant Imaging Med Surg. 2014;4(3):163-72. doi: 10.3978/j.issn.2223-4292.2014.03.06
8. Vande Berg B, Malghem J, et al. Multi-detector CT imaging in the postoperative orthopedic patient with metal hardware. Eur J Radiol. 2006;60(3):470-9. doi: 10.1016/j.ejrad.2006.08.008.
9. Ratner D. "A Perspective on Titanium Biocompatibility." Titanium in Medicine: Material Science, Surface Science, Engineering, Biological Responses and Medical Applications. Eds. Brunette D M, et al. Heidelberg:Springer-Verlag, 2001, pp. 1-10
10. Chen Q, Thomas GA. Metallic implant biomaterials. Mater Sci Eng. 2015;87:1-57. doi: 10.1016/j.mser.2014.10.001.

This document is intended solely for the use of healthcare professionals. A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery. The information presented is intended to demonstrate the breadth of Stryker's product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any of Stryker's products. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your sales representative if you have questions about the availability of products in your area.

Stryker Corporation or its affiliates own, use, or have applied for the following trademarks or service marks: Pangea, Stryker. All other trademarks are trademarks of their respective owners or holders.



Manufacturer:

Stryker GmbH
Bohnackerweg 1
2545 Selzach, Switzerland
stryker.com