Increasing surgical freedom
Restoring patient function
Fracture specific plating solutions for the most common tibia and fibula fractures

Frequency of fracture occurrences*

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<th>Type</th>
<th>A</th>
<th>B</th>
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- Tibial malleolar segment involving fibula
- Proximal tibia fractures
- Distal tibia fractures

- Distal fibula fractures
- Partial articular fractures requiring buttress plates and fibula fractures
- Patients with poor bone quality based on pathology or metaphyseal region
- Concern with screw backout resulting in secondary loss of reduction

PERI-LOC° VLP offers surgeons a stable, low profile means of fixation for fractures of the fibula and partial articular fractures of the tibia. The PERI-LOC VLP plating system is designed specifically to treat fibula fractures and partial articular tibia fractures. It gives surgeons the freedom to control fixation and helps restore not just the patient’s anatomy but their lifestyle.

*Data taken from Level I hospitals (2006). From the Maurice Müller AO Foundation
Case study: Tibial pilon fracture management

Patient information
43-year-old male, injured in a fall
Distal fibula fracture
Distal tibia fracture with intra-articular component
Radiographs and CT scan revealed a large posterior malleolus fracture and medial distal third tibial comminution

Implants
PERI-LOC™ VLP 3.5mm Posterior Distal Tibia Locking Plate
PERI-LOC VLP 3.5mm Posterolateral Distal Fibula Locking Plate
PERI-LOC VLP 3.5mm Medial Distal Tibia Locking Plate

Day of injury
• External fixator applied
• Soft tissue swelling delayed ORIF of tibia and fibula fractures

Preoperative radiographs

Procedural notes
Patient Positioning – Prone
• External fixator removed
• Fibula and posterior malleolus fractures addressed through a standard posterior approach between the FHL and peroneal tendons
• PERI-LOC VLP 3.5mm Posterolateral Distal Fibula Locking Plate was applied
• Posterior malleolus reduced and a PERI-LOC VLP 3.5mm Posterior Distal Tibia Locking Plate was applied to buttress fracture
• Medial distal tibia fracture was plated with PERI-LOC VLP 3.5mm Medial Distal Tibial Locking Plate utilizing MIPO technique

Post-operative radiographs

Participating surgeons

Gary S. Gruen, MD
Dr. Gruen is a trauma surgeon at the University of Pittsburgh Medical Center (UPMC) and a Professor of orthopaedic surgery at the University of Pittsburgh School of Medicine.

Aaron L. Sop, DO
Dr. Sop completed an Orthopaedic surgery residency at Riverside County Regional Medical Center, Riverside, CA in 2007. Currently, he is an Orthopaedic Trauma Fellow at The University of Pittsburgh Medical Center in Pittsburgh, PA.
Increasing surgical freedom

Freedom to choose plate position

Low profile plate and variable angle locking
The profile of the plate, along with the variable angled locking screw option, gives surgeons the freedom to choose plate position. Unlike bulky, traditional, fixed angled locking plates, this allows surgeons to place the plate in the optimal position to treat fractures.

Freedom to choose stability in osteopenic bone

5.0mm Osteopenia Screw
In addition to offering a locking screw option, 5.0mm Osteopenia screws are available. They are tested to provide superior pull-out strength in osteopenic bone, reducing the chance of screw backout.
Restoring patient function

**Restore patient comfort**

**Low profile construct**
Plates and screws are low profile reducing the potential for soft tissue irritation.

**Pre-bent tibial plates**
Plate contours assist in joint reduction and provide a buttress effect to the fracture site during healing. The low profile plate contours to the patient’s anatomy as PF pins are applied.

**Restore patient anatomy**

**Anatomically contoured distal fibula plates**
Two distal fibula plates are available for specific fracture patterns.
PERI-LOC° VLP options

3.5mm Lateral Distal Fibula Locking Plate
- Distal screw cluster and low plate profile provide stable periarticular fixation
- 2.0mm – 1.7mm proximal to distal plate thickness transition
- Left and right specific

3.5mm Posterolateral Distal Fibula Locking Plate
- Scalloped for syndesmotic screw placement outside the plate without compromising plate position
- 1.5mm – 0.9mm proximal to distal plate thickness transition
- Left and right specific
- 8° distal helical twist accommodates the posterolateral anatomy of the distal fibula
- Rounded distal edges to minimize peroneal nerve irritation

3.5mm Medial Distal Tibia Locking Plate
- Smooth distal tip minimizes soft tissue irritation over the medial malleolus
- 2.0mm – 1.5mm proximal to distal plate thickness transition
- Contour facilitates a medial approach to distal tibia fractures in the sagittal plane
- Left and right specific

3.5mm One-Third Locking Tubular Plate
- Low-profile buttress plate for fractures of the distal fibula
- Consistent 1.5mm plate thickness
3.5mm Anterior Distal Tibia Locking Plate
- Scalloped to allow lag screw placement without compromising plate position
- Contour facilitates an anterior approach to distal tibia fractures in the coronal plane
- Consistent 1.5mm plate thickness
- Left and right specific

3.5mm Posterior Distal Tibia Locking Plate
- Scalloped to allow lag screw placement without compromising plate position
- Contour facilitates a posterior approach to distal tibia fractures in the coronal plane
- Consistent 1.5mm plate thickness
- Left and right specific

3.5mm Lateral Proximal Tibia Locking Plate
- Scalloped to allow lag screw placement without compromising plate position
- 1.5mm – 2.0mm proximal to distal plate thickness transition
- Left and right specific
- 3° AP radius of curvature optimizes plate coverage down the tibial shaft and proximal screw position

3.5mm Posteromedial Proximal Tibia Locking Plate
- Contoured to provide a stable buttress platform for fractures of the medial tibial plateau
- Consistent plate thickness:
  1.5mm = 4 hole
  2.0mm = 7 hole
- Left and right specific
References