

## Company Summary

In an industry where large medical device companies drive a fiercely competitive market, TriMed® has advantageously positioned itself as one of the industry's most influential pioneers in extremity surgery treatment. Over 20 years ago, TriMed introduced state-of-the-art technology to treat osseous injuries that involved the articulating surfaces of joints. Unlike AO principles of standard fixation, which has proven optimal for long bone fractures, TriMed's technology is based on the concept that peri-articular fractures require specialized implants to reconstruct the joint in situations where standard plates and screws have limited application.

The ability to reconstruct an anatomic, articulating skeletal structure with these specialized implants was shown to be a much more effective solution for restoring function and early range of motion to the joint in comparison to standard plate and screw techniques<sup>1-7</sup>. Today, the principles of Fragment Specific Fixation are rooted in the restoration of normal joint anatomy and articular congruency using specialized implants for various peri-articular fragment components. This methodology is recognized by the AAOS as an advanced technical approach for treating periarticular injuries and differs significantly from trauma surgery. Physicians now depend on TriMed's comprehensive systems, which include Fragment Specific Fixation implants, to address complex osseous injuries involving articular congruency reconstruction, as well as standard plates and screws used to treat basic trauma of both upper and lower extremities problems.



This highly comminuted distal radius fracture shows the morbidity of the articular surface following a high impact injury (*left*), followed by reconstruction of the distal radius joint with TriMed's fragment specific implants (*middle*). The last image (*right*) shows traditional AO methods of fixation to treat a fractured forearm using plates and screws.

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## TriMed® Wrist Fixation System

TriMed's Wrist Fixation System is recognized as one of the first and most comprehensive systems for treatment of distal radius and distal ulna fractures on the market.

### *Basic Wrist Trauma*

Like other distal radius fracture systems, TriMed offers basic fracture care options including pins, volar fixed-angled plates (with both locking and non-locking screw options), and a full range of screw sizes for simple, extra-articular fractures not involving the joint.

For example, the TriMed Bridge Plate is an optimal solution for situations that demand speed of stabilization of a severely comminuted fracture, which can be used to span and separate the joint until later reconstruction surgery can be performed. TriMed Bridge Plate utilizes effective instrumentation for easy application. A later reconstruction of the joint can be performed using the other fragment specific options.

### *Reconstruction of Comminuted Fractured Distal Radius*

For complex articular injuries in which a virtual jigsaw puzzle of multiple joint fragments cannot be treated with standard AO fracture implants such as plates and screws, TriMed's Wrist Fixation System includes a wide variety of options. One such option is the TriMed Bearing Plate, designed with bearings in the distal holes, allows for a continual range of placement of distal locking pegs. Bearing technology allows the surgeon to orient each distal locking peg to capture and/or support the targeted peri-articular fragment, therefore orienting the fragments to restore normal joint anatomy and articular congruency.

Ideally, however, the best option is a joint preserving solution. TriMed offers the only complete fragment specific reconstruction system that has the ability to address restitution of these complex articular patterns. TriMed developed these implants based on a unique approach to peri-articular fixation that allows reconstruction and stabilization of independent joint fragments with techniques that obviate the need for screw purchase or screw holes in fragile peri-articular fragments. TriMed's fragment specific implants include a range of small, uniquely designed pin plates, hook plates, and wire forms, all of which comprise the only complete fragment specific system on the market. These techniques have allowed surgeons to salvage and reconstruct severely shattered joint surfaces, while preserving the patient's own joint and avoiding the additional cost and morbidity of later joint fusions or joint replacement surgery.

## TriMed® Elbow and Forearm System

TriMed's Elbow and Forearm system includes a full range of plate options for fracture fixation. This includes both straight and offset curved forearm plates, both with a superficial surface contour especially designed to reduce the need for a removal surgery due to implant irritation. Standard fracture plates and screws include a full range of lengths, both locking and non-locking options, and TriMed's patented compression tool provides the surgeon with a simple, effective mechanism to reduce and compress fractures; therefore, avoiding prolonged surgical times.

In addition to basic fracture implants, the TriMed Olecranon Sled™ is a product for treating intraarticular fractures of the olecranon (proximal ulna) that is based on fragment specific wireform concepts. It is a single composite device that has been shown to reduce the need for secondary surgery for removal<sup>8</sup>. In addition, for more complex reconstructive procedures of the proximal ulna, the TriMed Olecranon Hook

Plate is based on the same core principles of peri-articular joint reconstruction, including methods of fragment stabilization without requiring screw thread purchase of joint fragments. These implants are also commonly used for reconstructive osteotomies and periarticular reconstructive procedures.

### TriMed® Ankle Fixation System

TriMed's Ankle Fixation System has all of the basic fracture care implants, including standard and cluster plates that accept both locking and non-locking options, pins, washers, and a full range of both fully threaded cannulated and solid screws. The system also includes the expander/compression instrument that easily allows the surgeon to either compress the fracture site during plate application, or restore the critical length of the fibula during surgery to avoid painful, arthritic outcomes that may result in later joint replacement.

In addition to a complete line of fracture fixation implants, the TriMed Ankle Fixation System includes other unique implants that are used in reconstructive procedures. The Medial Malleolar Sled™ is based on fragment specific wireform concepts and is used for osteotomy procedures of the medial malleolus as well as small peri-articular reconstruction of the medial malleolus in complex joint fractures. Similarly, the Hook Plates and Sidewinder plates are specialized implants used for both elective and complex reconstructive procedures similar to that described previously.

### Other systems

Other systems that are available from TriMed:

- PEEK Fusion Cup System for both upper and lower extremity applications (only one on market) – reconstructive
- TriMed Clavicle Fixation System – trauma
- TriMed Hand Plating System – trauma and reconstructive
- TriMed Compression Screw Systems – trauma and reconstructive
- TriMed Foot Plating System – reconstructive
- TriMed Fifth Metatarsal System (Jones Fracture Screw and Hook Plate) – reconstructive
- TriMed Calcaneal Fracture Fixation System - trauma

## References:

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