SUTUREGARD®
MEDICAL INC

HEMIGARD® ASRD & INTERLOCK ZONAL™ TECHNOLOGY CLINICAL SOURCE DECK

HEMIGARD® ASRD Adhesive Suture Retention Device

TAIL PORTION

- Stretches under low tension
- Prevents blistering

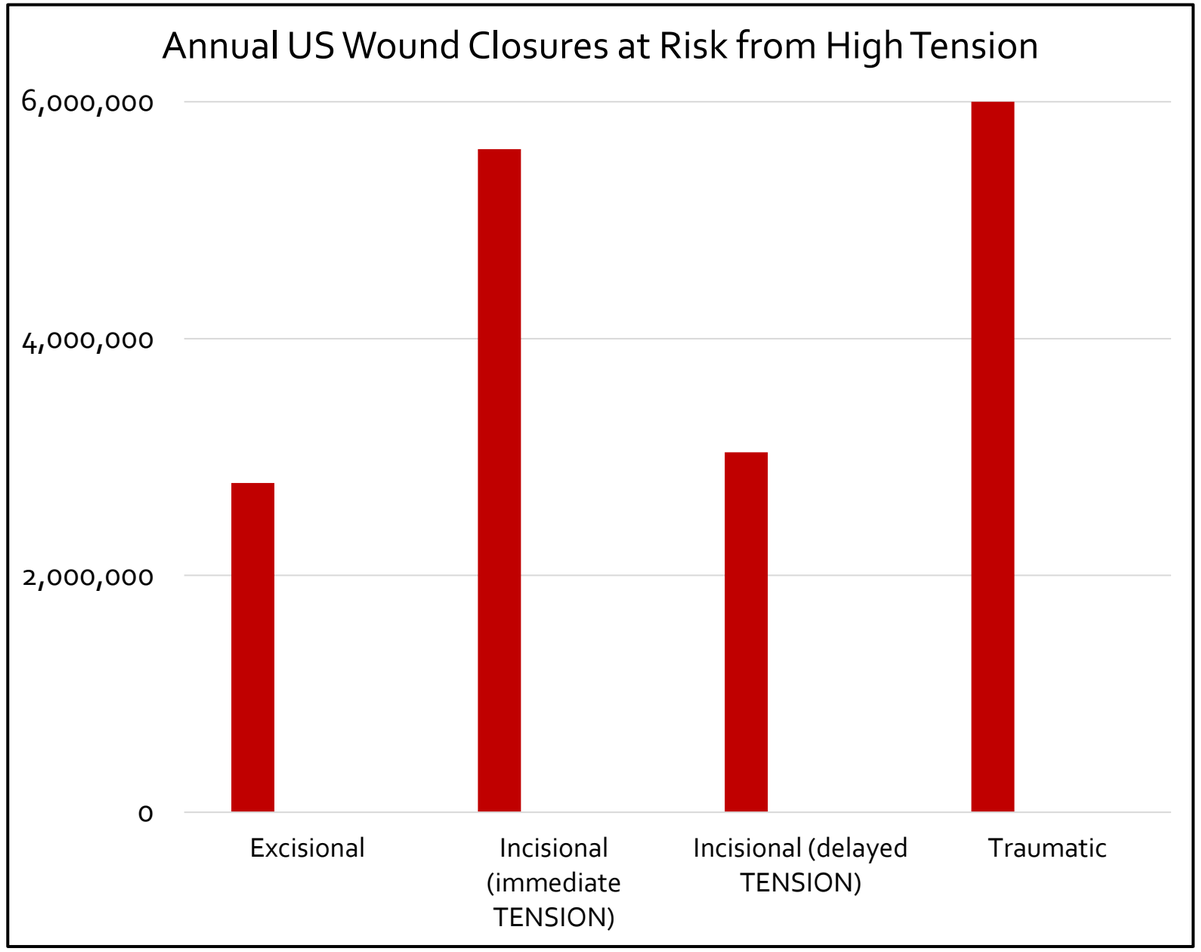
MIDDLE PORTION

- Stretches under high tension
- Disperses stress away from wound edge

RIGID PORTION

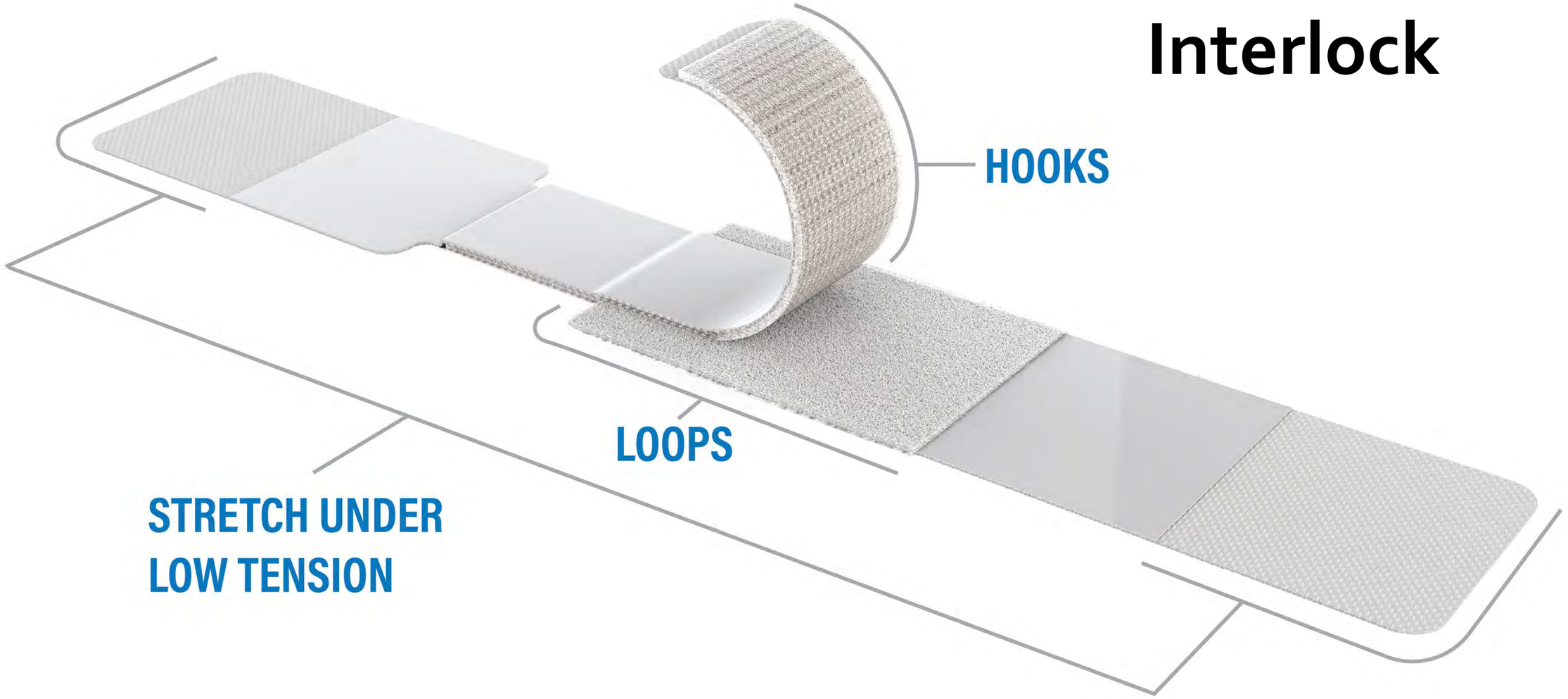
- Faces wound
- Withstands high tension
- Elevates suture off skin
- Two holes for either simple or vertical mattress patterns

HEMIGARD® **ASRD** *designed* for lower extremity surgeries to manage *high tension* wound closure

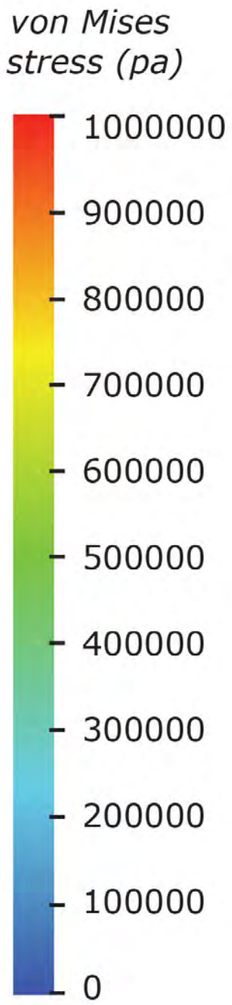


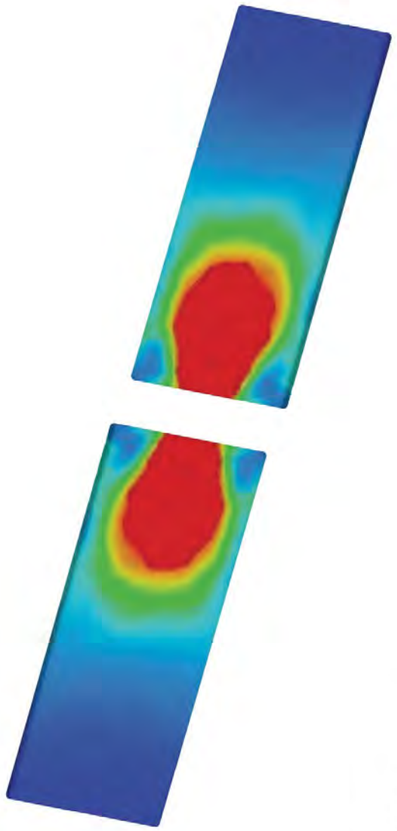
- Devices *contraindicated* for high tension wound closures (found in their IFUs):
  - CLOZEX ®
  - DermaClip ®
  - microMEND ®
  - Zip ®
- Sutures and staples put extensive stress on skin
  - Tearing
  - Dehiscence

HEMIGARD®
Interlock

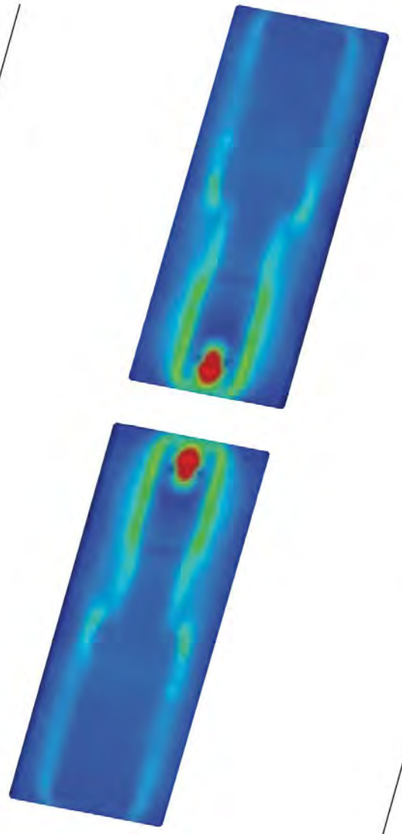


Offload Wound Stress

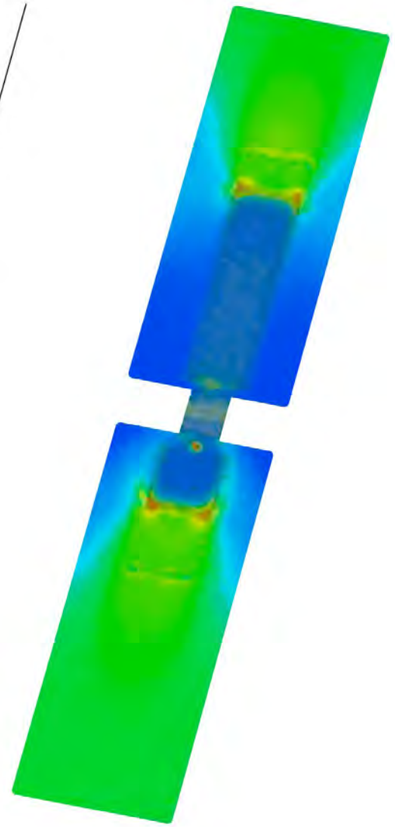




Standard suture
High stress at wound edge



HEMIGARD® ASRD
Disperses stress away



HEMIGARD® INTERLOCK
Disperses stress away

Trauma, Fractures & Lacerations

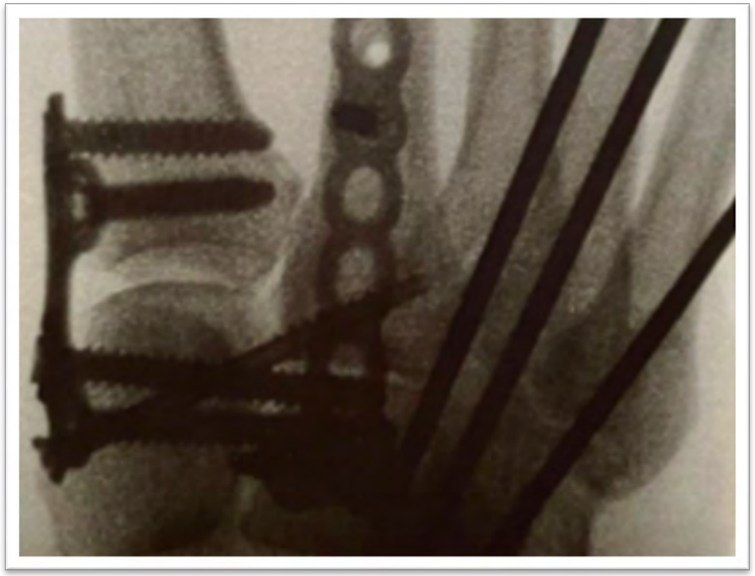
Complex Foot Fracture – ASRD Double Link Technique

Comminuted fracture dislocations of the 1st, 2nd, 3rd and 4th metatarsals and cuboid bones.
Length: wide rations of bipedicle flaps important.

Lisfranc Foot Fracture – ASRD Link Technique

Skin island is at-risk of being pulled in two directions with post-op swelling.

Link in center spreads tension over long construct of about 15 cm, no tension imparted to central bipedicle flap skin.



ORIF Ankle Fracture

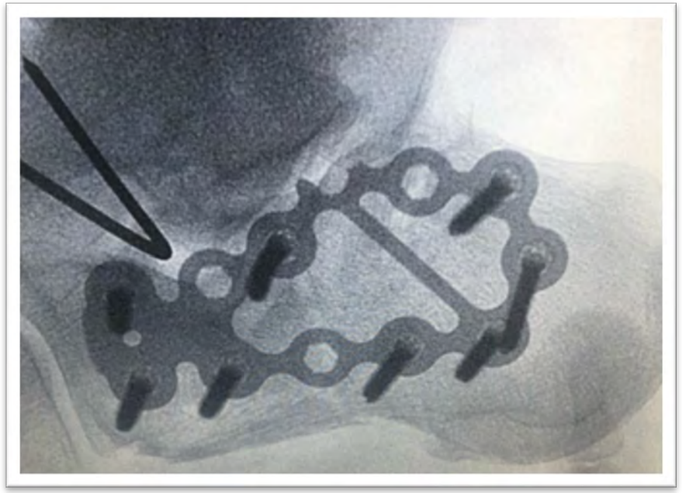
Place ASRDs at areas of anticipated maximal swelling to manage post-op tension.

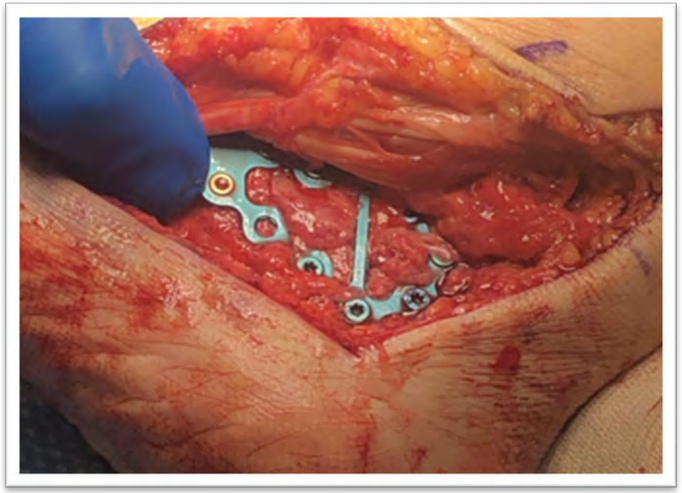
ORIF in Obese Patient

Place ASRDs at areas of dynamic stress (swelling, ROM). ASRDs accommodate swelling and motion while protecting incision.

Calcaneal Fracture

ASRDs brace closure allowing immediate ROM and earlier ambulation.





Bilateral Calcaneal Fractures

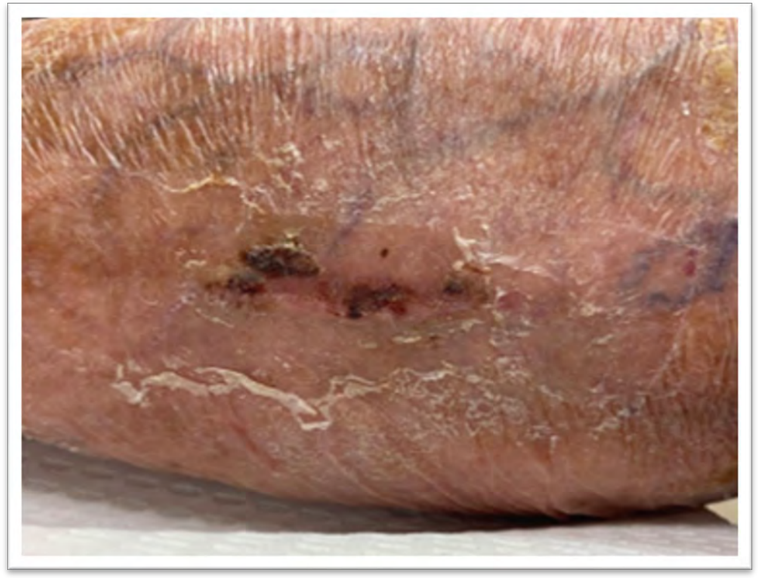
Reduction and fixation by lateral extensile approach.

ASRDs support closures.

Laceration Fragile Skin

Lower extremity laceration closed with ASRDs without tearing skin.

No deeps. No trailing edge blisters.



Knife Wound Laceration and Partial Disarticulation

Multilayer repair and reconstruction with ASRDs.



Laceration from Circular Saw

ASRDs used in multilayer repair and reconstruction of anterolateral compartment musculature. Peroneal nerve intact.

Open Multiple Midfoot Fractures

ASRD facilitates skin closure and provides dynamic post-op swelling support

Fasciotomy Closure

High-tension closure for skin that has retracted. ASRDs enable faster closure with postop mechanical support of closure for 2-6 weeks as needed.

Fasciotomy

Lateral closed but high-tension medial closure required ASRDs

Crush Injury

1st stage: debridement to stable wound bed.

2nd stage: delayed partial closure with ASRDs. Wound healed at week 3.

Ankle Fracture with Medial and Lateral Approach

Medial with ASRDs healed well.

Lateral ***without*** ASRDs not fully healed by week 11.

ASRDs reduce tension during wound healing.

Medial views at 2 weeks (L) and 11 weeks (R)

Lateral views at 2 weeks (L) and 11 weeks (R)

Dehiscence & Chronic Wound Closure

Prevent a Surgical Wound from Becoming a Chronic Wound

Achilles Tendon Wound Dehiscence Repair

Foot and ankle procedures are at risk of dehiscence.

ASRDs salvage these cases.

Repair Achilles Dehiscence Post NPWT

Dehiscence after removal of wound vac. At bedside, ASRDs used to prevent need to return to OR for revision.

Cover or close?

Sub metatarsal head ulcers are common in diabetic

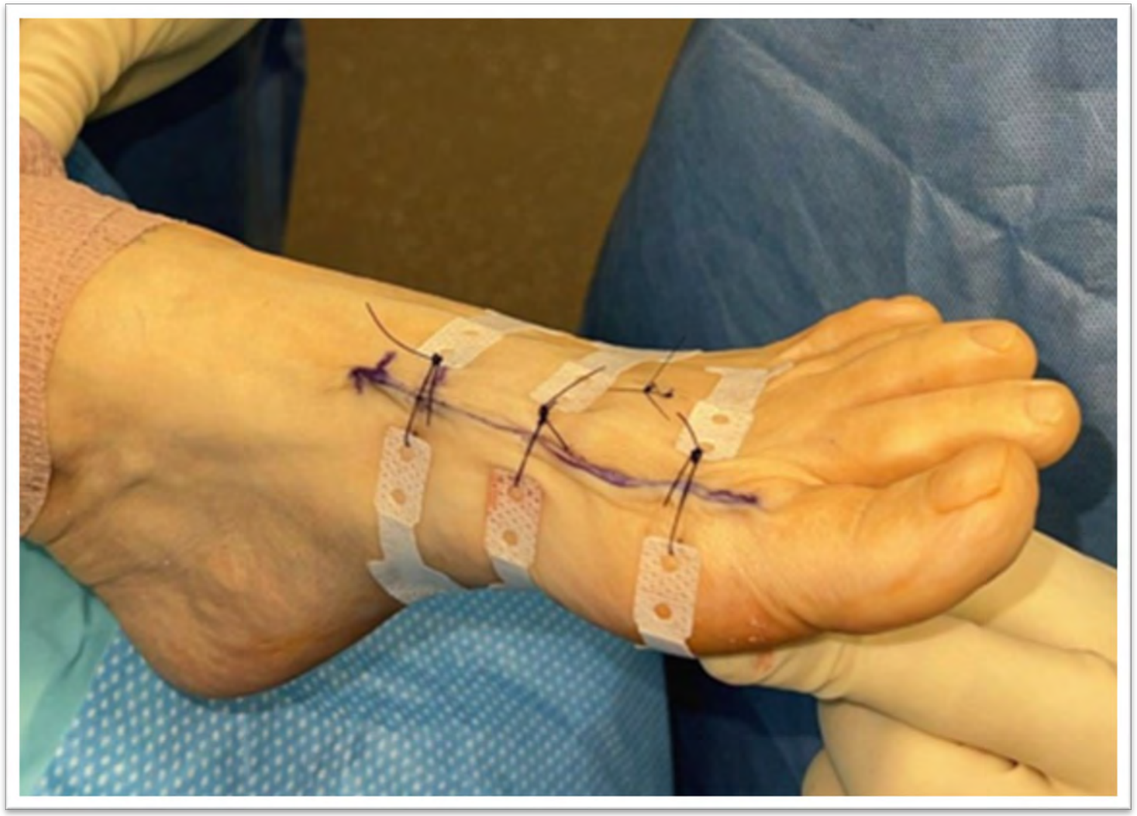
Excisional debridement, closure under local anesthesia

ASRDs provide the prolonged mechanical support required for healing

Elective Reconstruction, Joint Replacement and Fusions

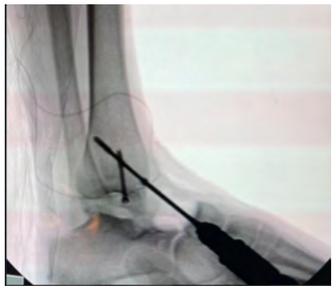
Bunion Correction

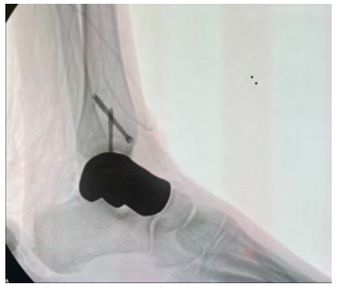
Lapiplasty plating. ASRDs create low tension healing environment for optimal dorsal scar result.



TTC Fusion Surgery

Carbon fiber radiolucent nail case supported by ASRDs to manage post-op swelling.





AVN – Total Talus

"Anterior incision closed with HEMIGARD ASRD. Good application…zero issues with incisional wound healing." - Surgeon

Achilles Tendon Repair

Trimmed ASRD from two holes to one to create better distribution on skin when surface is highly convex.

Achilles Allograft Reconstruction

Secure coverage over allograft which may not granulate well if exposed.

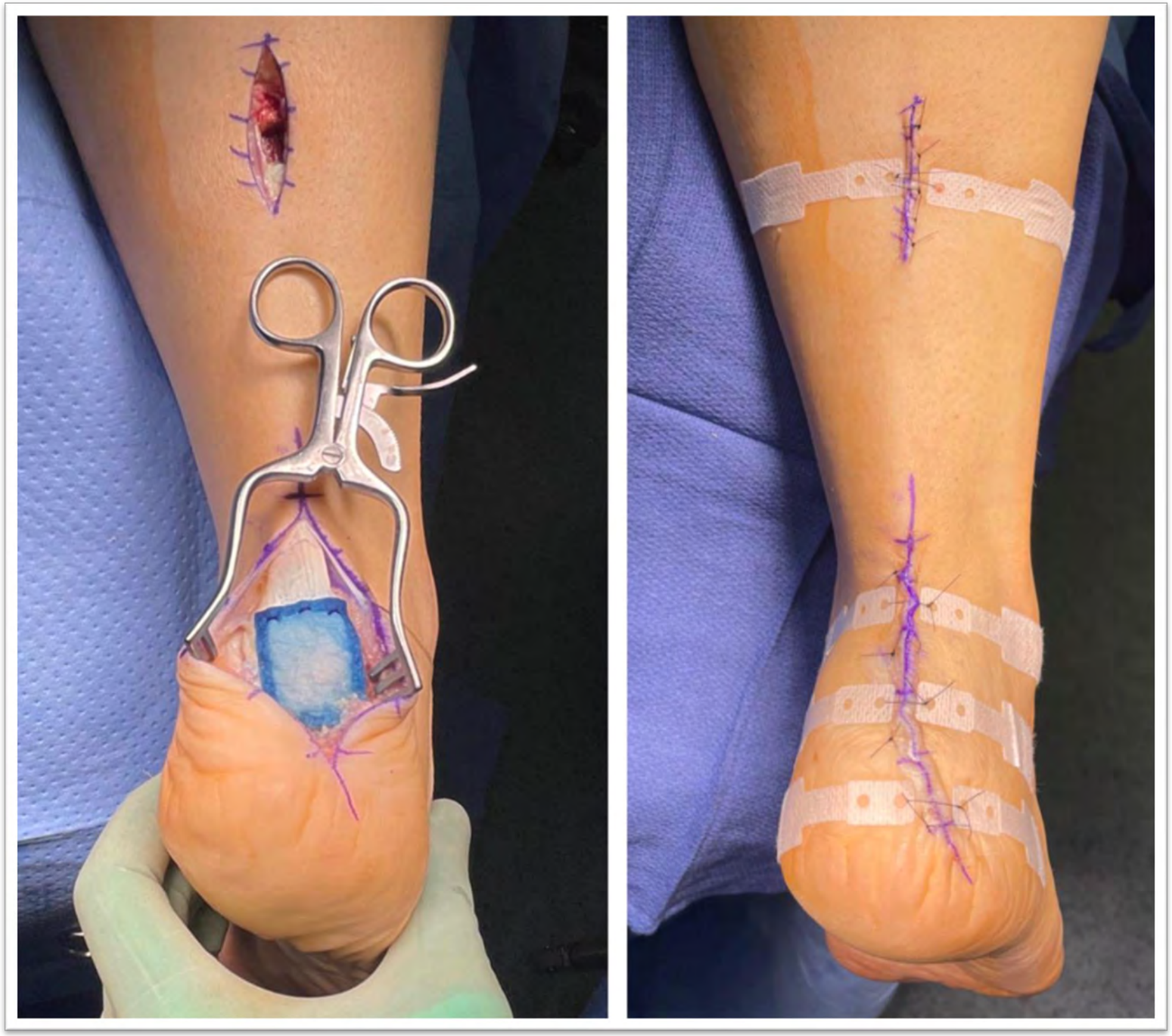
ASRDs reduce wound tension and allows earlier ROM.

Achilles Tendon Repair

Strayer procedure.

REGENETEN Bioinductive Implant.

ASRDs add security to closure.

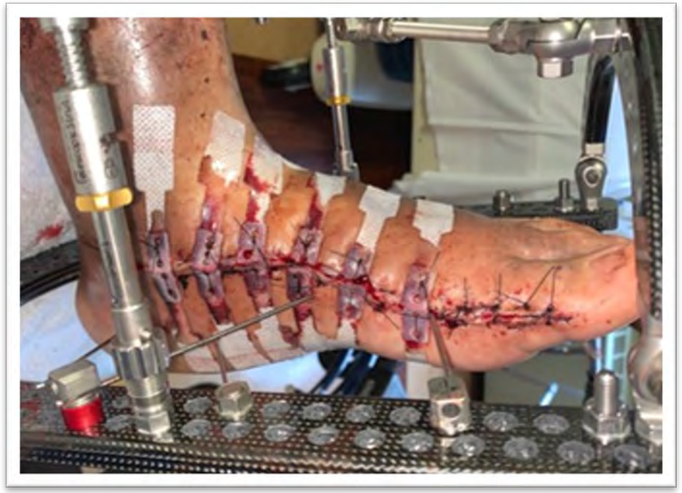


Charcot Reconstruction

ASRDs used on left foot ***but not*** right foot.

Right Charcot dehisced.

ASRDs removed at post-op day 19 from left foot.

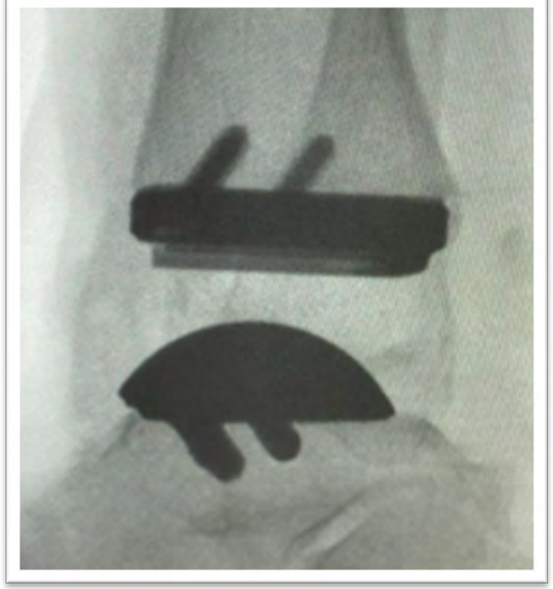


Total Ankle Replacement

Chronic valgus deformity TAR with Stryker Infinity.

ROM and ambulation at 2 weeks (lower left).

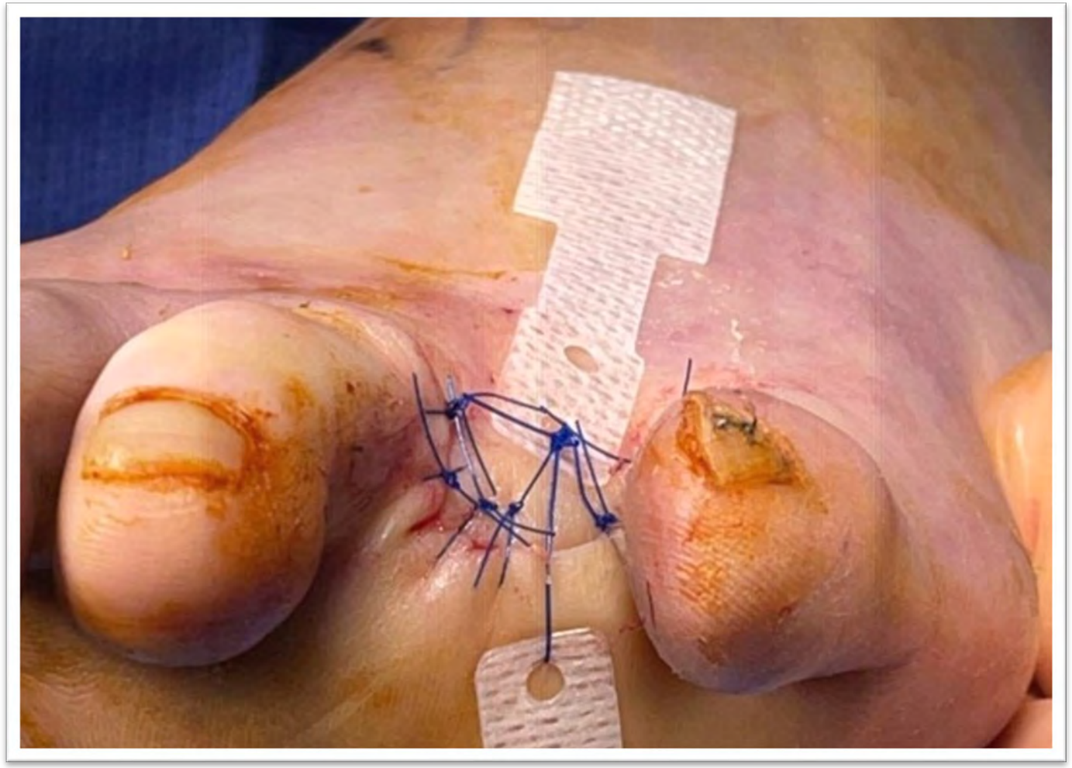
ASRDs left in place for 5 weeks to support closure.



Healed Toe Amputation = Limb Salvage

60% of toe amputations incur healing complications.

In a 5-center retrospective study, adoption of the HEMIGARD® ASRD was associated with an overall decrease in wound dehiscence of 81% ($P < .01$). Additionally, there was an 89% reduction in progression to higher level amputation in the ARSD cohort ($P = .015$) (Cole et al, 2023).



Lisfranc Amputation

Acute forefoot gangrene requiring guillotine TMA.

Staged Lisfranc closure with ASRDs 5 days later.

No dermal sutures used.

ASRDs remained in place for 6 weeks.

Transmetatarsal Amputation

Gas gangrene with hemoglobin A1C of 9.

Staged debridement.

ASRDs used for closure with no dermal sutures.

Dehisced Lisfranc Repair

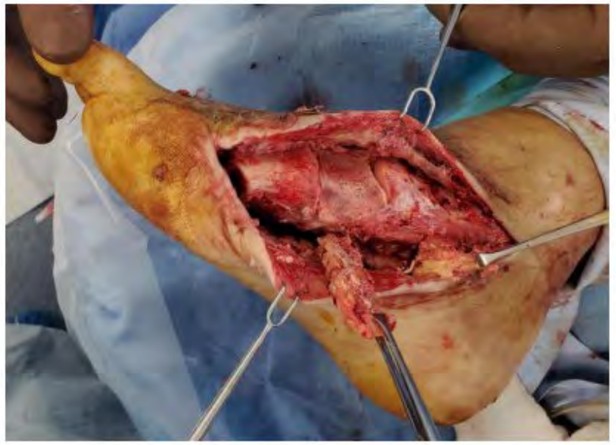
Failed primary amputation with dehiscence.

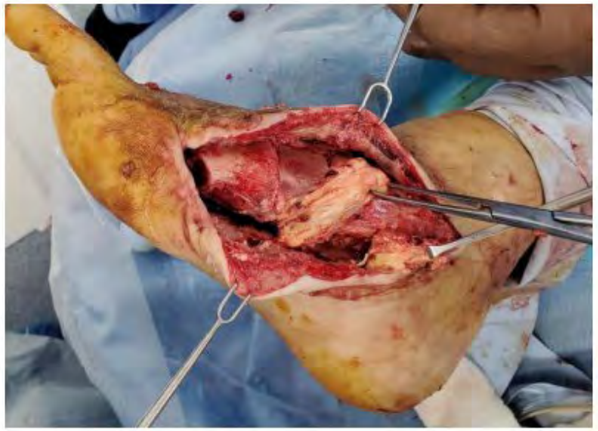
Closed dehiscence with ASRDs without dermal sutures.

Flap Size Reduction

Large defect after debridement for infection. Previous partial 1st ray amp.

ASRDs offload closure tension resulting in smaller defect closed by FHB muscle flap transposed medially. VAC applied until granulated, then skin graft with additional support of ASRDs.





HEMIGARD® ASRD
Supported Wound VAC

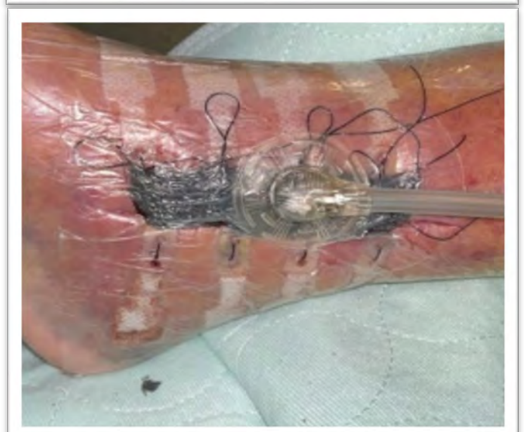
Acute infected hematoma drained.

Application of CellerateRX® + vancomycin powder

ASRDs used for progressive closure with VAC for drainage and edema reduction.

Reduced trips to OR, reduction in days to hospital discharge.



HEMIGARD® ASRD & Interlock System

HEMIGARD ASRD + Interlock System

Calcaneal osteotomy, scar revision, tendon balance.

ASRDs placed at areas of *highest* tension.

HEMIGARD ASRD + Interlock System

Calcaneal osteotomy, scar revision, tendon balance.

ASRDs placed at areas of

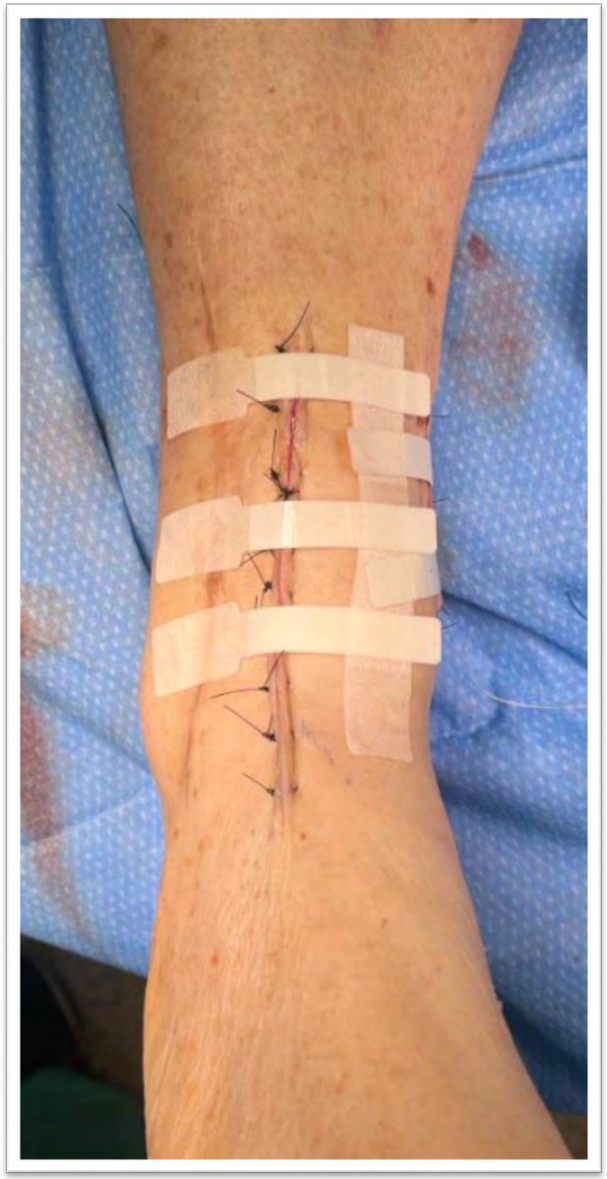
highest tension.

Splinting and Relieving Closure Tension with the HEMIGARD® Interlock

Ankle Fracture

Interlock can manage post-op tension.

Place **Interlocks** at areas of anticipated maximum swelling.



Achilles Tendon Repair

Double-level gastric/achilles lengthening for equinus correction.

Place **Interlocks** at areas of anticipated maximum swelling.

Bunion Correction

Interlock used to reduce tension of dorsal incision closure.

Medial splint 1st MTPJ for medial tightening and lateral release (3 weeks).

Interlocks placed axially along first ray and adjusted as needed.

Durable post-op support compared to gauze wedge in webspace.

Hammer Toes – Flexor Tenotomies

Interlock used to maintain dorsiflexion early post-op.

Can be used for 3 weeks and adjusted multiple times as needed.

Hammer Toes

Interlock used to maintain toe extension after MIS release and to splint great toe to maintain hallux position.