HANDS ON DEMONSTRATION & SURGICAL SKILLS MODELS

TRAUMA AND EXTREMITIES
Products Catalog

Orthopaedic models and skills development systems for demonstration and training
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MATERIALS GUIDE

Our workshop materials are **Solid Foam** and **Foam Cortical Shell**. For information on all other Sawbones materials please visit our website at [www.sawbones.com/orthopaedic-models-product-info](http://www.sawbones.com/orthopaedic-models-product-info).

**SOLID FOAM**

Solid foam models are made of rigid foam throughout. This is an economical material for general anatomy.

Most commonly used for:
- External fixation
- Limited total joint replacement
- Internal fixation

**FOAM CORTICAL SHELL**

Foam cortical shell models are made of a rigid foam shell with inner cancellous material. These models cut and drill easier than the plastic cortical shell models.

Most commonly used for:
- Total joint replacement
- Internal fixation
- Fracture and pathology models
- General orthopaedics
Customized anatomy and fractures with or without fragments can be manufactured from your CT-data or CAD files.

Soft tissue can be added to our bones.

Workshop models can be converted into the radiopaque option.

We can create display models for trade shows to help you show off your products and get noticed.

Cases for transport and storage can be provided for most models, instruments and implants.

We can make our bones softer or harder by modifying their density.

HERE IS AN IDEA OF WHAT WE CAN DO
CMF

Fracture and fragment reattachment achieved with latex bands.

#1338-7 — Mandible with bilateral fractures. Includes fracture through left side mandibular angle and right side superior fragment fracture scored inferiorly. Cancellous inner material and solid teeth. Holes between base of each tooth. May be used with maxilla holder #1348-2.

#1338-8 — Mandible with comminuted fracture. Includes comminuted fracture reattached with black pad on inner surface. Cancellous inner material and solid teeth. May be used with maxilla holder #1348-2.

#1338-11 — Mandible with solid teeth, sagittal fracture, and cancellous inner material. May be used with maxilla holder #1348-2.

#1344-15 — Skull with fracture and craniotomies. With large cranial flap on left side and small cranial flap on right side. Segmental fracture above left orbit. Uses 9 mm bur hole. Includes soft tissue brain matter. No mandible. Solid foam.

#1344-22 — Skull with craniotomy without mandible. Includes left lateral flap approximately 6 cm x 7 cm, cut at 90 degrees to the cranium. With a 1.5 mm cut to provide gap. With vise attachment. Solid foam.

#1345-13 — Skull with Type I Le Fort fracture, scored bilateral zygomatic fractures, and scored left side medial orbital wall fracture. Also with a scored left side sagittal fracture of the mandible between the cuspid and first bicuspid. Solid foam.

#1345-15 — Full skull with maxilla with Le Fort I fracture, and mandible with bilateral sagittal split and horizontal genioplasty. With posterior vise attachment. Full skull made of solid foam and articulating mandible with cancellous inner material.

#1345-18 — Full skull with scored Le Fort II and bilateral zygomatic fractures. Includes articulated mandible with two scored left side sagittal fracture, and a right side complete angle fracture. Also with predrilled holes between teeth for wiring. Solid foam.
Fracture and fragment reattachment achieved with latex bands.

#1345-18-1 — Full skull with soft tissue facial covering and skull with scored Le Fort II and bilateral zygomatic fractures. Includes articulated mandible with two scored left side sagittal fracture, and a right side complete angle. Also with predrilled holes between teeth for wiring. With vise attachment. Solid foam.

#1345-18-2 — Full skull with multiple fractures. Includes left-side fractures of the nasal bone, mandible angle, and the zygomatic process. Solid foam.

#1345-20 — Full skull with Le Fort I, II, and III fractures, and mandible with bilateral sagittal split and horizontal genioplasty. With pre-drilled holes between teeth for wiring, and posterior vise attachment. Full skull made of solid foam and articulating mandible with cancellous inner material.

SPINE

#1382 — Vertebra, L1 vertebra with compression fracture. Solid Foam.

#1352-13 — Lumbar spine, T10 to sacrum, with severe burst fracture of the L1. Articulated with anterior and posterior ligaments and tan flexible discs. Foam cortical shell.


#1703-164 — Stand for rib set #1025-38.
All fractures are reattached with latex bands.

**CLAVICLE**

- **#1020-2-1** — Clavicle, large left, includes midshaft fracture line scribed with red ink. Solid clear.
- **#1020-51** — Clavicle, large left, with lateral end butterfly fracture. Overall length of 16 cm. No canal. Solid foam. **AO Classification: 15.3A(a)**
- **#1020-52** — Clavicle, large left, with midshaft transverse fracture. Overall length of 16 cm. No canal. Solid Foam. **AO Classification: 15.2A**

**SHOULDER**

- **#1020-100-3** — Shoulder, large right, with four part fracture of the humeral head. Scapula included with vise attachment block. Foam cortical shell.
- **#1509-25-3** — Shoulder, right, encased in soft tissue. Includes replaceable #1020-100-3.

**HUMERUS**

- **#1019-8** — Humerus, large left, with a mid-shaft short oblique. With a canal diameter of 10 mm and an overall length of 36 cm. Solid foam. **AO Classification: 12A2(b)**
- **#1028-4** — Humerus, large left, with three-part fracture of the humeral head. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. **AO Classification: 11B1**
- **#1028-5** — Humerus, large left, with distal “Y” fracture and periosteum. With a canal diameter of 10 mm and an overall length of 36 cm. Foam cortical shell. **AO Classification: 13C1**
#1028-11 — Humerus, large left, with four-part “Y” fracture through the trochlea and capitulum grooves. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 13C3

#1028-13 — Humerus, large left, with a mid-shaft butterfly. With a canal diameter of 10 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 12B2(b)

#1028-15 — Humerus, large left, with a four-part fracture of the humeral head. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: C2.2

#1028-16 — Humerus, large left, with a three-part fracture of the humeral head, red neoprene partial rotator cuff, and subscapularis tendon. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 11B1

#1028-21 — Humerus, large left, with a four-part fracture of the humeral head through the bicipital groove. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: C2.2

#1028-21-1 — Humerus, large left, with a five-part humeral head fracture through bicipital groove. With neoprene ligaments, a canal diameter of 9.5 mm, and an overall length of 36 cm. Foam cortical shell. AO Classification: 11B3

#1028-22 — Humerus, large left, with a midshaft short oblique fracture. With a canal diameter of 10 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 12A2(b)

#1028-25 — Humerus, large left, with a three-part proximal fracture and resected neck. With 10 pre-drilled suture holes and a canal diameter of 10 mm, and an overall length of 36 cm. Foam cortical shell. AO Classification: 11B1

Most of our workshop bones can be fractured or deformed at your request.
#1028-64 — Humerus, large left, with transverse surgical neck fracture. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 11A2

#1028-69 — DoubleShot™ humerus, large, has the proximal geometry, from our standard humerus bone molded onto both ends. One end has a right proximal humerus and the other has a left proximal humerus. Foam cortical shell.

#1028-77 — Humerus, large right, with a four-part fracture of the humeral head through the bicipital groove. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: C2.2

#1028-152 — Humerus, large left, with a three-part supracondylar “T” fracture. With a canal diameter of 9.5 mm and an overall length of 36 cm. Foam cortical shell. AO Classification: 13C1

ULNA

All fractures are reattached with latex bands.

#1017-1 — Ulna, large left, with a transverse fracture of the olecranon. Overall length of 28 cm. Solid foam. AO Classification: 2U1B1

#1017-32 — Ulna, large left, with a fracture of the olecranon. Foam cortical shell. AO Classification: 2U1B1

#1026-3 — Ulna, large left, with a transverse olecranon fracture for wire tension band. With a canal diameter of 5 mm and an overall length of 28 cm. Foam cortical shell. AO Classification: 2U1B1.D

#1026-4 — Ulna, large left, with a transverse fracture of the olecranon and oblique midshaft fracture. With a canal diameter of 5 mm and an overall length of 27.5 cm. Foam cortical shell. AO Classification: olecranon 2U1B1.D and midshaft ulna 2U2A2
RADIUS

All fractures are reattached with latex bands.

All listed radius have a canal diameter of 5.5 mm and an overall length of 25 cm.

#1012-1 — Radius, left medium, with three-part Colles’. Solid foam. AO Classification: 2R3C1

#1018-1 — Radius, large left, with a short oblique mid-shaft. Solid foam. AO Classification: 2R2A2

#1018-3 — Radius, large left, with a transverse Colles’ fracture and Lister’s Tubercle removed. Foam cortical shell. AO Classification: 2R3A2.1

#1018-23 — Radius, large left, with a long oblique mid-shaft fracture. Solid foam. AO Classification: 2R2A2

#1018-29 — Radius, large left, with a mid-shaft oblique. Solid foam. AO Classification: 2R2A2

#1027-1 — Radius, large left, with a three-part distal “Y” fracture. Foam cortical shell. AO Classification: 2R3C1.2

#1027-4 — Radius, large left, with a three-part Colles’ fracture and Lister’s Tubercle removed. Foam cortical shell. AO Classification: 2R3C1.3

#1027-5 — Radius, large left, with a four-part intra-articular fracture, including dorsal and palmar fracture on the lateral side. Foam cortical shell. AO Classification: 2R3C2.3

SOFT TISSUE CAN BE ADDED TO OUR BONES.
#1027-6 — Radius, large left, with a three-part distal. Ideal for volar plating. Foam cortical shell. AO Classification: 2R3B3.1

#1027-12 — Radius, large left, with a distal transverse. Foam cortical shell. AO Classification: 2R3A2.1

#1027-13 — Radius, large left, with a distal transverse fracture with fragment at the radioulnar joint. Foam cortical shell. AO Classification: 2R3C1.1

#1027-15 — Radius, large left, with a transverse fracture with dorsal and articular fragments and ulnar side split. Foam cortical shell. AO Classification: 2R3C3.3

#1027-19 — Radius, large left, with a distal three-part intra-articular. Foam cortical shell. AO Classification: 2R3B3.1

#1027-56 — Radius, large right, with distal three-part intra-articular. Foam cortical shell.

**ULNA AND RADIUS**

Articulation and fracture reattachment achieved with latex bands.

All listed ulnas have a canal diameter of 5 mm and an overall length of 27.5 cm. All listed radius have a canal diameter of 5.5 mm and an overall length of 25 cm.

#1017-3 — Ulna and radius, large left. Ulna with short oblique fracture of the proximal third. Radius with transverse fracture of the distal third. Solid foam. AO Classification: radius 2R2A and ulna 2U2A3

#1017-3-1 — Ulna and radius, large left. Ulna with an oblique fracture of the proximal third. Radius with transverse fracture of the distal third. Foam cortical shell. AO Classification: radius 2R2A and ulna 2U2A3
#1017-27 — Ulna and radius, large left. Ulna with four-part midshaft fracture. Radius with short oblique midshaft fracture. Solid foam. AO Classification: radius 2R2A and ulna 2U2B3

#1022-15 — Ulna and Radius, large left, with a distal radial styloid fracture. Ideal for single screw fixation. Solid foam ulna, and radius with cancellous inner material. AO Classification: 2R3B2.2

#1027-23 — Ulna and radius, large left, with three-part volar fracture of the distal radius. Radius with cancellous inner material. Ulna is made of solid foam. AO Classification: 2R3C1.3

ELBOW
Articulation and fracture reattachment achieved with latex bands.

#1024-10 — Elbow, large left, with fractures of the coronoid and radial head, as well as severed lateral ligament and unattached medial ligament. Humerus with a 9.5 mm canal, ulna and radius with 5 mm canals. Foam cortical shell. AO Classification: 2R1B1

#1024-27 — Elbow, large left, with a six part fracture of the distal humerus, with the ulna nerve and triceps tendon present. Foam cortical shell. AO Classification: 13C2

★ #1024-35 — Elbow, large right, with fractures of the distal humerus. Humerus and radius with cancellous inner material and ulna made of solid foam. AO Classification: 13C3

#1024-54 — Elbow, large left. Humerus with a distal transverse fracture, cancellous inner material, a canal diameter of 9.5 mm, and an overall length of 36 cm. Ulna and radius made of solid foam, each with a canal diameter of 5 mm. AO Classification: 13A2.3

#1024-59 — Elbow, large left, with a four-part fracture of the humeral head. Humerus with cancellous inner material, a canal diameter of 9.5 mm, and an overall length of 36 cm. Ulna with cancellous inner material, a canal diameter of 5 mm, and an overall length of 27.5 cm. Radius made of solid foam.
#1024-62 — Pediatric elbow, right, with distal transverse condyle fracture. Commonly used for distal pinning fracture reduction labs. Solid foam. The elbow is a replica of a 6-8 years old child. AO Classification: 13-M/3.1

#1510-4 — Elbow, large left. Fully encased distal humerus and proximal ulna and radius. Humerus includes distal “T” fracture and cancellous inner material.

#1510-5 — Elbow, large left. Distal parts of humerus and proximal parts of ulna and radius encased in soft tissue. Humerus includes distal four-part fracture and cancellous inner material. With ulna nerve and triceps tendon. AO Classification: 13C1

#1510-11 — Pediatric elbow, right. Encased arm bent 90 degrees with cutout at elbow to access supracondylar fracture. Humerus, ulna and radius are made of solid foam with flexible plastic ligaments. The elbow is a replica of a 6-8 years old child. AO Classification: 13-M/3.1

**ARM**

Articulation and fracture reattachment achieved with latex bands.

#1028-12 — Arm, large left, with a a three-part proximal humerus fracture, distal “Y” fracture, and a four-part olecranon fracture. Humerus and ulna include cancellous inner material, and the scapula is made of solid foam. AO Classification: 13C1

**HAND**

All fractures are reattached with latex bands.


#1016-18 — Hand, large left, with transverse fracture of the scaphoid. Fracture reattached and scaphoid articulated with trapezium ligament. Solid foam. AO Classification: typeB:B2

#1016-53 — Hand, large left, with transverse scaphoid fracture reattached with Naugahyde bands, and articulation at the first carpometacarpal joint. Solid foam. AO Classification: typeB:B2
Articulation and fracture reattachment achieved with latex bands.

#1022-4 — Hand and wrist, large left, with a Colles’ fracture of the radius and a short oblique midshaft fracture of the ulna. Solid foam. AO Classification: radius 2R3A2.2 and ulna 2U2A2

#1022-16 — Hand and wrist, large right, with a distal transverse fracture of the radius. Ulna and radius include cancellous inner material, and hand is made of solid foam. Solid foam. AO Classification: 2R3C1.2

#1022-17 — Hand and wrist, large left, with a distal four-part intra-articular radial fracture with displacement. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm, and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.3

#1022-33 — Hand and wrist, large left, with a two-part radial Colles’ fracture. Ulna with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with a canal diameter of 5.5 mm and an overall length of 25 cm. Solid foam. AO Classification: 2R3A2.2

#1022-47 — Hand and wrist, large left, with a distal four-part intra-articular radial fracture. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm, and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.3

#1022-54 — Hand and wrist, large left, with a distal three-part intra-articular radial fracture. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.2

#1511-36 — Hand and wrist, large left, encased in soft tissue. With a distal transverse fracture of the radius, as well as the radial artery, median nerve, pronator quadratus muscle, retinaculum, and FPL (flexor pollicis longus), FCR (flexor carpi radialis), and FDP (flexor digitorum profundus) ligaments with sheaths.

HAND AND WRIST

Hand, large left, with a free-floating fractured scaphoid. Solid foam. AO Classification: B2

HAND AND WRIST

Hand and wrist, large left, with a Colles’ fracture of the radius and a short oblique midshaft fracture of the ulna. Solid foam. AO Classification: radius 2R3A2.2 and ulna 2U2A2

Hand and wrist, large right, with a distal transverse fracture of the radius. Ulna and radius include cancellous inner material, and hand is made of solid foam. Solid foam. AO Classification: 2R3C1.2

Hand and wrist, large left, with a distal four-part intra-articular radial fracture with displacement. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm, and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.3

Hand and wrist, large left, with a two-part radial Colles’ fracture. Ulna with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with a canal diameter of 5.5 mm and an overall length of 25 cm. Solid foam. AO Classification: 2R3A2.2

Hand and wrist, large left, with a distal four-part intra-articular radial fracture. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm, and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.3

Hand and wrist, large left, with a distal three-part intra-articular radial fracture. Ulna made of solid foam with a canal diameter of 5 mm and an overall length of 27.5 cm. Radius with cancellous inner material, a canal diameter of 5.5 mm and an overall length of 25 cm. Hand is made of solid foam. AO Classification: 2R3C2.2

Hand and wrist, large left, encased in soft tissue. With a distal transverse fracture of the radius, as well as the radial artery, median nerve, pronator quadratus muscle, retinaculum, and FPL (flexor pollicis longus), FCR (flexor carpi radialis), and FDP (flexor digitorum profundus) ligaments with sheaths.
#1511-37-1 — Hand and wrist, large left, encased in soft tissue. With a midshaft transverse fractures of the ulna and radius. Ulna and radius each made of solid foam and with a 5 mm canal diameter. AO Classification: 2R2A3(b) and 2U2A3(b)

#1511-40 — Hand and wrist, large left, encased in soft tissue. With a distal four-part fracture of the radius, as well as the radial artery, median nerve, pronator quadrus muscle, retinaculum, and FPL (flexor pollicis longus), FCR (flexor carpi radialis), and FDP (flexor digitorum profundus) ligaments with sheaths.

#1511-40-1 — Hand and wrist, large left, encased in soft tissue. With intramedullary canals of the fourth and fifth metacarpals, solid foam ulna, radius with cancellous inner material, palmer ligaments, ulnar artery, and medial nerve. Includes replaceable radius #1027-5

#1530 — Colles fracture reduction and casting technique trainer. Traditional roll on casting, performed by manually reducing the fracture, can be done with or without finger traps. Casting materials can be removed using standard cast removal techniques. Includes a multi-position universal bed rail clamp allowing the user to train in the most common patient positions.
All fractures and fragments are reattached with latex bands.

#1295-3 — Hemi pelvis, large left, with posterior wall fracture. With a 57 mm acetabulum. Foam cortical shell. AO Classification: 62A1

#1301-16 — Pelvis, full male, with posterior wall fractures of each acetabulum, and pubis disruption. With 57 mm acetabulum. Solid foam. AO Classification: 62A1

#1301-22 — Pelvis, full male, with combination posterior wall and transverse fracture. With 57 mm acetabulum and cancellous inner material in the left hemi pelvis.

#1301-25 — Pelvis, full male, with posterior column fracture and SI (sacroiliac) joint disruption of the right side. With 57 mm acetabulum. Solid foam.

#1301-26 — Pelvis, full male, with right side posterior wall fracture with depressed fragment. Right hemi pelvis with cancellous inner material, left hemi pelvis and sacrum made of solid foam. With 57 mm acetabulum. AO Classification: 62A1

#1301-28 — Pelvis, full male, with left comminuted anterior column fracture, interior superior iliac fracture, and bilateral sacral fractures. With 57 mm acetabulum. Foam cortical shell.

#1301-35 — Pelvis, full male, with transverse posterior wall fracture of the left acetabulum, and posterior wall fracture with displacement of the right acetabulum. Includes periosteum and with 57 mm acetabulum. Foam cortical shell. AO Classification: 62A1

#1301-36 — Pelvis, full male, with right side acetabular “T” fracture and both-column fracture of the left side with periosteum. With 57 mm acetabulum. Foam cortical shell.
#1301-45 — Pelvis, full male. Right side with sacral fracture and anterior column fracture. Left side with transverse acetabular fracture, and posterior and anterior column fractures. With 57 mm acetabulum. Foam cortical shell.

#1301-80 — Pelvis, full male, with right side fracture of the sacrum through the foramina, as well as complete SI (sacroiliac) and pubis symphysis disruption. With cancellous inner material of the sacrum and right hemi pelvis, and 57 mm acetabulum.

#1301-81 — Pelvis, full male, with proximal femur articulated with capsular ligament. Includes acetabular fracture and transverse posterior wall fracture. With 57 mm acetabulum and cancellous inner material in the right side hemi pelvis and femur.

#1301-82 — Pelvis, full male, with acetabular “T” fracture extending distally through the inferior pubic ramus, reattached with latex bands. Right proximal femur articulated with capsular ligament. With cancellous inner material of the femur and right hemi-pelvis, and 57 mm acetabulum.

#1301-88 — Pelvis, full male, designed for use with dry erase markers to demonstrate fracture patterns. Smooth white plastic.

#1301-180 — Pelvis, full male, with right side superior and inferior rami fracture, and SI (sacroiliac) fracture with SI joint displacement. Sacrum and right hemi-pelvis with cancellous inner material, left hemi pelvis made of solid foam. With 57 mm acetabulum. AO Classification: Vertical Shear (VS)

#1301-181 — Pelvis, full male, with right side sacral fracture through the foramina, and superior and inferior rami fracture, with displacement 15 mm superior. Sacrum and right hemi-pelvis with cancellous inner material, left hemi pelvis made of solid foam. With 57 mm acetabulum. AO Classification: Lateral Compression (LC) Type I

#1301-182 — Pelvis, full male, with “T” fracture of the right acetabulum extending distally through the inferior pubic ramus, and with medial displacement of 10-20 mm. Right proximal femur articulated with capsular ligament. With cancellous inner material of the femur and right hemi-pelvis, and 57 mm acetabulum.
#1301-183 — Pelvis, full male, with right side associated both-column fracture through ilioinguinal approach (Letournel Type I) with medial displacement. Right proximal femur articulated with capsular ligament. With cancellous inner material of the femur and right hemi-pelvis, and 57 mm acetabulum.

#1301-186 — Pelvis, full male, with transverse fracture of the acetabulum and associated posterior wall fracture with displaced fragment. Right proximal femur articulated with capsular ligament. With cancellous inner material of the femur and the right side hemi pelvis, and 57 mm acetabulum.

#1313 — Hemi pelvis, large right, with anterior and posterior acetabular wall fractures. With vise attachment and 57 mm acetabulum. Solid foam. AO Classification: 62A1

#1516-39 — Compression screw guidewire navigation trainer. Designed for use with fluoroscopy imaging. Lateral bone can be palpated. Skin patch and radiopaque proximal femur #1130-21-35 are replaceable.

#1130-21-35 — Femur, large left, with neck fracture. Replacement part for #1516-39 trainer. Foam cortical shell with radiopaque properties on the outer cortex. AO Classification: 31-B2.2

#1524-58 — Pelvis holder with dual approach. A semi-flexible, reusable holder designed to hold both anterior and posterior approach positions. For our large full pelvis models with or without femurs and with or without lumbar vertebrae, up to L1. Soft tissue with skin.

#1660-10 — Pelvis holder with suspended dual approach. The pelvis can be locked into left and right lateral orientations for utilization of both sides, as needed. This product can be used for acetabular reconstruction (hip replacement), fracture reduction and plating, and marrow biopsy targeting.
FEMUR

All fractures and fragments are reattached with latex bands.

#1121-5-3 — Femur, small left, with midshaft transverse fracture. Includes lighter than standard cancellous inner material, a canal diameter of 9.5 mm, and an overall length of 35 cm. Foam cortical shell. AO Classification: 32A3(b)

#1121-5-11 — Femur, small left, with midshaft transverse fracture. With a canal diameter of 9.5 mm and an overall length of 35 cm. Foam cortical shell. AO Classification: 32A3(b)

#1130-9 — Femur, large left, with subtrochanteric oblique fracture. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. AO Classification: 32A2

#1130-19 — Femur, large left, with comminuted intertrochanteric fracture with lesser trochanteric fragment. With a canal diameter of 16 mm and an overall length of 47 cm. Foam cortical shell. AO Classification: 31A1

#1130-24 — Femur, large left, with “T” fracture at distal end. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. AO Classification: 33C1

#1130-35 — Femur, large left, with a long oblique bicondylar fracture, and posterior congenital fracture of the lateral condyle. Foam cortical shell. AO Classification: 33C3

#1130-41 — Femur, large left, with distal transverse fracture with large superior fragment on medial side. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. AO Classification: 33A2

#1130-45 — Femur, large left, with two-part subtrochanteric spiral fracture with lesser trochanter attached to the distal fragment (Seinsheimer Class IIC). With a canal diameter of 16 mm and an overall length of 47 cm. Foam cortical shell. AO Classification: 32-A3.1
#1130-46 — Femur, large left, with a trochanteric fracture and a lesser trochanter displaced fragment. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. **AO Classification: 31A1**

#1130-49 — Femur, large left, with a three part reverse trochanteric fracture. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. **AO Classification: A3.3**

#1130-65 — Femur, large left, with an extra-articulated supracondylar distal fracture. With a 16 mm canal diameter and an overall length of 47 cm. Foam cortical shell. **AO Classification: 43A1.3**

#1701-30-45 — Femur, large left, for fracture marking with dry erase markers. Without a canal and an overall length of 47 cm. Smooth white plastic.

### KNEE

*All fractures and fragments are reattached with latex bands.*

#1145-4-1 — Knee, large left, articulated with four non-stretch ligaments; LCL, MCL, ACL, and PCL. Includes five-part fracture of the proximal tibia and three-part fracture of the proximal fibula. Femur and tibia with cancellous inner material, and solid foam fibula. **AO Classification: 41C2**

#1145-5 — Knee, large left, articulated with two latex tube ligaments; LCL and MCL. Includes plateau fracture of the femur, bilateral tibial plateau fracture, and short oblique fracture of the tibia in the proximal 3rd of the shaft. Femur and tibia with cancellous inner material, and solid foam fibula. **AO Classification: 43C3**

#1145-10 — Knee, large left, with distal femur and full length tibia, articulated with collateral ligaments. Includes a lateral plateau fracture with depressed fragment. Foam cortical shell. **AO Classification: 41B3.1**

#1145-48 — Leg, large left, with femur, tibia, fibula, and foot bones. Includes bicondylar fracture of the tibial plateau. Femur and tibia include cancellous inner material, fibula and foot bones made of solid foam. **AO Classification: 41C1**
#1145-49 — Knee, large left, with extra-articular fracture of the distal femur with small medial butterfly fracture, and bicondylar fracture of the tibial plateau. Femur and tibia with cancellous material, and solid foam fibula articulated with stretch tube collateral ligaments. AO Classification: 33A2 and 41C1

#1145-94 — Knee, large left, articulated with two latex ligaments; LCL and MCL. Includes bicondylar and midshaft oblique fractures of the tibia. Femur and tibia with cancellous inner material, and solid foam fibula. AO Classification: 41C1 and 42A2

#1147-13 — Knee, medium left, articulated with stretch tube LCL and MCL. Includes tibial plateau fracture of the lateral condyle with displacement. Femur and tibia with cancellous inner material, and fibula made of solid foam. AO Classification: 41C1

#1517-39 — Knee, large left, encased in soft tissue. Includes bicondylar fracture and depressed fragment of the proximal tibia, Hoffa fracture of the lateral femoral condyle, and “T” fracture and medial fragment of the distal femur. Foam cortical shell. AO Classification: 33-C2 and 41B1

★#1145-74 — Knee, large right, with femoral intraarticular fracture. To use with soft tissue sleeve #1517-60. Foam cortical shell.

FULL LEG

All fractures and fragments are reattached with latex bands.

#1132-142 — Full leg with stretch tube LCL, MCL, and LCL. Includes distal femoral “Y” fracture with medial fragment, and proximal long oblique fracture of the tibia. Femur with a canal diameter of 16 mm and an overall length of 47 cm. Tibia with a canal diameter of 12.5 mm and an overall length of 42 cm. AO Classification: femur 33C1 and tibia 41A2

TIBIA

All fractures and fragments are reattached with latex bands.

#1116-33 — Tibia, medium left, with midshaft C2 segmental fracture. With a 12 mm diameter canal. Solid foam. AO Classification: 42C2

#1117-15 — Tibia, medium left, with displaced lateral condylar fracture with depressed fragment. With a canal diameter of 12 mm and an overall length of 38 cm. Foam cortical shell. AO Classification: 41B3.1

★ = New
#1117-16 — Tibia, medium left, with oblique fracture at proximal metaphysis. With a canal diameter of 12 mm and an overall length of 38 cm. Foam cortical shell. AO Classification: 41A2

#1117-26 — Tibia, medium left, with midshaft short oblique. With a 12 mm diameter canal. Foam cortical shell. AO Classification: 42A2

#1117-27 — Tibia, medium left, with lateral plateau fracture, distal spiral fracture, and medial malleolar fracture. With a 12 mm diameter canal and an overall length of 38 cm. Foam cortical shell. AO Classification: 41B1, 43A1.1 and 44A2.1

#1117-37 — Tibia, medium right, with lateral condylar fracture and depressed fragment. With a canal diameter of 12 mm and an overall length of 38 cm. Foam cortical shell. AO Classification: 41B3.1

#1126-3 — Tibia, large left, with medial malleolar fracture, distal spiral fracture, proximal long oblique fracture, and medial condyle fracture. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. AO Classification: 41B1.2, 41A2, 43A1.1 and 44A

#1126-19 — Tibia, large left, with bicondylar fracture of the tibial plateau with fragment on medial side, and long oblique fracture at the tibial tuberosity. Foam cortical shell. AO Classification: 41C2

#1126-20 — Tibia, large left, with mid-shaft butterfly fracture. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. AO Classification: 42B2

#1126-21 — Tibia, large left, with lateral condylar fracture with depressed fragment. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. AO Classification: 41B3
#1126-24 — Tibia, large left, with fracture of the medial condyle and long oblique fracture of the proximal third. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. 
AO Classification: 41B1.2

#1126-29 — Tibia, large left, with proximal “Y” fracture. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. 
AO Classification: 41C1

#1126-35 — Tibia, large left, with three-part mid-shaft butterfly fracture. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. 
AO Classification: 42B2

#1126-46 — Tibia, medium right, with lateral condylar fracture. With a canal diameter of 12 mm and an overall length of 38 cm. Foam cortical shell. 
AO Classification: 41B1.1

#1126-51 — Tibia, large left, with fracture of the lateral condyle, two scored mid-shaft short oblique fractures, and a distal spiral fracture. Condylar and spiral fractures are complete and reattached with latex bands while the oblique fractures are partially cut. With a canal diameter of 12.5 mm and an overall length of 42 cm. Foam cortical shell. 
AO Classification: 41B1.1, 41A2 and 43A1.1

#1126-58 — Tibia, large left, with proximal oblique fracture. With a distal canal diameter of 14 mm and a hollow core. Foam cortical shell. 
AO Classification: 41A2

TIBIA AND FIBULA

Articulation and fracture and fragment reattachment achieved with latex bands.

#1126-15 — Tibia and fibula, large left, with a bicondylar fracture of the tibia depressed by 10 mm. Tibia with cancellous inner material, a canal diameter of 12.5 mm, and an overall length of 42 cm. Fibula made of solid foam. AO Classification: 41C1

#1126-16 — Tibia and fibula, large left, with distal tibial spiral fracture. Tibia with cancellous inner material, a canal diameter of 12.5 mm, and an overall length of 42 cm. Fibula made of solid foam. 
AO Classification: 43A1.1
#1144-3 — Tibia and fibula, large left, with a midshaft 30 degree valgus fracture of the tibia. Tibia with cancellous inner material, a canal diameter of 12.5 mm, and an overall length of 42 cm. Fibula made of solid foam.

AO Classification: 41C1

#1144-8 — Tibia and fibula, large left, with a bicondylar “Y” fracture of the tibia. Tibia with cancellous inner material, a canal diameter of 12.5 mm, and an overall length of 42 cm. Fibula made of solid foam.

AO Classification: 41C1

#1144-9 — Tibia and fibula, large left, with tibial fractures of the lateral condyle and the medial malleolus. Tibia with cancellous inner material, a canal diameter of 12.5 mm, and an overall length of 42 cm. Fibula is made of solid foam with no canal and includes a distal long oblique fracture.

AO Classification: 41B1.1 Weber C

#1144-11 — Tibia and fibula, large left, with a tibial midshaft butterfly fracture. Tibia with cancellous inner material, a 12.5 mm canal, and an overall length of 42 cm. Fibula is made of solid foam with no canal, and an overall length of 42 cm. AO Classification: 42B2

#1144-13 — Tibia and fibula, large left, articulated with solid foam talus. Tibia includes distal pilon fracture with anterior, lateral, and medial fragment intact and single posterior fragment. Also contains cancellous inner material. Solid foam fibula with transverse fracture 5 cm from distal end.

AO Classification: 43C2.3

#1144-16 — Tibia and fibula, large left, with type six tibial plateau fracture with plateau and proximal shaft fractures. Also contains cancellous inner material. Fibula made of solid foam.

AO Classification: 41B1.1 and 41A2

#1144-17 — Tibia and fibula, medium left, with tibial long oblique fracture of the medial condyle and a short oblique fracture of the lateral condyle. With cancellous inner material, a canal diameter of 12 mm, and an overall length of 38 cm. Fibula made of solid foam with no canal. AO Classification: 41C1

#1144-31 — Tibia and fibula, large left, with tibial bicondylar fractures with medial split condyle, transverse fracture below the tuberosity, and cancellous inner material. Solid foam fibula includes proximal transverse fracture. AO Classification: 41C1
LOWER EXTREMITIES

#1144-48-2 — Tibia and fibula, medium left, with tibial proximal bicondylar fracture and five-part distal fracture. Fibula with three-part distal fracture. Solid foam fibula articulated with tibia with cancellous inner material. AO Classification: 41C1

#1144-55 — Tibia and fibula, large left, with distal oblique fibular. Tibia with cancellous inner material. Fibula is made of solid foam. AO Classification: Weber B1

#1144-66 — Tibia and fibula, large left, with tibial proximal bicondylar and transverse fractures. Solid foam fibula articulated with tibia with cancellous inner material. AO Classification: 41C2

ANKLE

Articulation, fracture and fragment reattachment achieved with latex bands.

#1133 — Ankle, large left, with distal tibia and fibula articulated with talus and calcaneus. Includes supination-adduction Type A fracture. Solid foam.

#1133-3 — Ankle, large left, with an oblique fracture of the distal fibula. Tibia and fibula are made of solid foam. AO Classification: 44B1.1

#1133-5 — Ankle, large left, with medial malleolar and posterior articular fractures of the tibia, as well as a transverse fracture of the distal third of the fibula. Tibia with cancellous inner material and fibula made of solid foam. AO Classification: 43C1.1

#1133-10 — Ankle, large left, with medial and posterior malleolar fractures of the tibia, and a long oblique fracture of the fibula. Tibia and fibula are made of solid foam. AO Classification: 43B1.1
#1133-11 — Ankle, large left, with medial malleolar fracture, and butterfly fracture of the distal third of the fibula. Weber Type C classification. Tibia and fibula are made of solid foam. AO Classification: 44C2.1

#1133-12 — Ankle, large left, with medial malleolar fracture, and a long spiral fracture of the distal third of the fibula. Weber Type B classification. Tibia and fibula are made of solid foam. AO Classification: 44C2.1

#1133-18 — Ankle, large left, with fractures of the medial and lateral malleolus, as well as a fracture of the lateral distal tibia. Weber Type B classification. Tibia includes cancellous inner material. Fibula made of solid foam. AO Classification: 43B1.1

#1133-22 — Ankle, large left, with four-part pilon fracture of the tibia and long oblique fracture of the fibula. Tibia with cancellous inner material, articulated with solid foam fibula and talus. AO Classification: 43C2.2

#1133-35 — Ankle, large left, with a transverse fracture of the medial malleolus, a displaced fragment at the tibiofibular joint Fibula with an oblique metaphyseal fracture. Tibia with cancellous inner material. Fibula is made of solid foam. AO Classification: 43C1.1

#1133-37 — Ankle, large left, with a short oblique fibular fracture. Tibia and fibula are made of solid foam. AO Classification: Weber B

FOOT AND ANKLE

Articulation, fracture and fragment reattachment achieved with latex bands.

#1132-5 — Foot and ankle, large left, with full tibia and fibula articulated with talus, calcaneus, and forefoot. Includes four-part tibial pilon fracture. Solid foam. AO Classification: 43B2.2

#1132-11 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and fused forefoot. Includes trimalleolar fracture on medial, lateral, and posterior sides. Solid foam. AO Classification: 43C1.1
#1132-20 — Foot and ankle, large left, with distal tibia and fibula articulated with fused talus, calcaneus, and forefoot. With displaced five-part pilon fracture of the tibia, short oblique fracture of the fibula, and superior rotation of the talus. Also includes cancellous inner material of the tibia and periosteum. Solid foam. 
AO Classification: 43C2.2

#1132-30 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and forefoot. With five-part talar fracture, bunion of the fifth metatarsal, and hammertoe of the second and fourth phalanges. Solid foam.

#1132-34 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and forefoot. Includes three-part calcaneal fracture with fragment on medial side. Solid foam. 
AO Classification: C2

#1132-41 — Foot and ankle, large left, with distal tibia and fibula articulated to fused talus, calcaneus, and forefoot. Includes encapsulated articulation of the first interphalangeal joint, a Jones’ fracture of the fifth metatarsal, an oblique fracture of the distal fibula, and a transverse fracture of the medial malleolar. Solid foam. 
AO Classification: 44A2.3

#1132-44 — Foot and ankle, large left, with full tibia and fibula articulated with talus, calcaneus, and forefoot. Includes Type II pilon fracture and transverse fibular fracture. Tibia with cancellous inner material. Solid foam. 
AO Classification: 43C2.1

#1132-47 — Foot and ankle, large left. Full tibia with four-part pilon fracture and cancellous inner material, articulated with solid foam fibula and foot bones. 
AO Classification: 43B3.3

#1132-86 — Foot and ankle, large left, with full tibia and fibula, articulated with talus, calcaneus, and forefoot. Three-part calcaneal fracture. Solid foam. 
C2 Essex-Lopresti Classification: Depression Type Fracture

★ #1132-100-2 — Foot and ankle, large right, with full tibia and fibula articulated with talus, calcaneus, and forefoot. Includes intraarticular calcaneal fracture. Solid foam. 

★ =New
#1132-115 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and forefoot with articulating tarsals. Includes cuboid fracture, Lisfranc fracture of the fourth and fifth metatarsals, and a split second metatarsal fracture. Solid foam.

#1132-116 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and fused forefoot. Includes lateral wall fracture of calcaneus and talar dome, medial wall and talar neck fractures of talus. Solid foam. AO Classification: calcaneus B2 and talus C2

#1132-145 — Foot and ankle, large left, with full tibia and fibula articulated with talus, calcaneus, and fused forefoot. Includes pilon and lateral malleolus fractures. Tibia with cancellous inner material. Solid foam. AO Classification: 43C1.3

#1132-147 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and fused forefoot. With Lisfranc fracture. Solid foam.

#1132-170 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, and forefoot. Calcaneus includes four-part fracture reattached and cancellous inner material. Foam cortical shell. C2 Essex-Lopresti classification: Depression Type Fracture

#1518-22-1 — Foot and ankle, large left, with distal tibia and fibula articulated with talus, calcaneus, fully encased in soft tissue. Includes talar neck fracture, and cancellous inner material in the calcaneus. Foam cortical shell. Hawkins Classification: Type I nondisplaced talar neck fracture

#1518-31 — Foot and ankle, large left, with full tibia and fibula articulated with talus, calcaneus, and forefoot. Distal parts encased in soft tissue. Calcaneus includes six-part fracture, lateral wall blow-out, depressed fragment, and cancellous inner material. Talus with talar neck fracture and cancellous inner material. Foam cortical shell. Hawkins Classification: Type I nondisplaced talar neck fracture. Calcaneus C2

#1518-35 — Foot and ankle, large left, with full tibia and fibula with foot. Distal parts encased in soft tissue with anterior medial and lateral windows. Tibia includes distal four-part fracture and cancellous inner material. Fibula made of solid foam includes distal oblique fracture.
#1518-49 — Foot and ankle, large left, with distal tibia and fibula. Tibia with three-part distal fracture and cancellous inner material. Solid foam distal fibula and foot. All bones with radiopaque properties and fully encased in soft tissue. AO Classification: 43B2.2

★ #1518-100 — Foot and ankle, large right, with full tibia and fibula articulated with talus, calcaneus, and forefoot. Distal parts encased in soft tissue.

★ #1500 — Foot and ankle, large left. Includes a first and fifth metatarsal bunion, second and fourth metatarsal hammertoe, and heel spur. Fully encased in soft tissue.

FOOT

#1131-28 — Foot, large left, with a two-part fracture of the talus. Solid foam. Hawkins Classification: Type I nondisplaced talar neck fracture

#1131-5 — Foot, large left, with Lisfranc fracture of the first metatarsal and cuneiform split of the second metatarsal. Also with first ray artery. Solid foam.

CALCANEUS

#1123-6 — Calcaneus, large left, with five-part fracture. With vise attachment. Foam cortical shell. AO Classification: 82C3

#1123-11 — Calcaneus, large left, with transverse anterior process, superolateral intra-articular fracture and sustentacular fractures. Foam cortical shell. AO Classification: 82C2

#1123-13 — Calcaneus, large left, with five part fracture. With vise attachment. Foam cortical shell. AO Classification: 82C3

WE CAN MAKE OUR BONES SOFTER OR HARDER BY MODIFYING THEIR DENSITY.

★ = New
Fracture and fragment reattachment achieved with latex bands.

#1521-617 — Cylinder, 25 mm diameter x 400 mm length, with a 9 mm canal. Solid foam.

#1521-617-1 — Cylinder with four-part fracture with butterfly fragments and pre-drilled holes. Solid foam.

#1521-617-2 — Cylinder with short oblique fracture and pre-drilled holes. Solid foam.

#1521-617-4 — Cylinder with short oblique fracture encapsulated with a single layer neoprene sleeve. Solid foam.


#1521-617-6 — Cylinder with four-part fracture and encapsulated with a double layer neoprene sleeve. Solid foam.

#1521-617-9 — Cylinder, 25 mm diameter x 125 mm length, with a 16 mm canal. One end has 50 mm osteotomy and 63 mm osteotomy on the other end. Solid foam.

#1521-617-11 — Cylinder with midshaft short spiral fracture. With a 9.5 mm canal diameter. Solid foam.
CLAMPS

#1600-1 — Bone clamp and "C"-clamp that can be used in a horizontal, vertical or 45° angle position. Suitable for rigid fixation of Sawbones models. Can be used for internal and external fixation and total joint replacement.

#1605 — Bone clamp, universal. Swivels 360° and rotates to any vertical or horizontal position. Has modified jaw for quick application and changing of Sawbones models. Includes C-Clamp.

#1605-13 — Same as #1605 but with higher tower.

#1605-1 — Vise grip clamp. Used with clamp #1600 or #1605 for securing irregular shaped bones such as a pelvis.

MODULAR DISPLAY TRAY SYSTEM

Custom-built Modular Display Tray Systems to cast your medical instruments and devices in the best light!

FEATURES:

- All display pocket silhouettes are cut using CAD designs from your own instruments/devices.
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- You can choose from a wide variety of colors, materials and embellishments.

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- Can be tailored to each individual request with several different price ranges available.
- Many design options to choose from.

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Sawbones Device Implant Replicas are for any instrument or implant company that has a need to display, promote, or use specific implant replicas in place of the costly real devices.

The Device implant Replicas can be produced to match most implants available on the market. They are an inexpensive alternative that can be mass-produced to facilitate major new product launches, marketing activities, sales demonstrations and physician workshops.

FEATURES:

Our implant replicas are cast and/or 3D printed from high strength materials and can be finished in several mediums such as:

- Chrome
- Matte
- Gloss colors

BENEFITS:

- Several levels of finish qualities — from base level finish for workshop applications to high level finishes for marketing and promotion.

- Much lower cost than real implants.

- Numerous colors and finish choices.

- Can be adapted to other Sawbones products and installed in our clear bones.

- Can be either cast for high volume applications or 3D printed for low volume needs.

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At Sawbones, we are committed to providing the highest level of service and product quality. If you are less than completely satisfied with the performance of our products for any reason, we will gladly honor a full refund or replacement.

Contact us anytime with suggestions on how we can improve our products or service.

ORDERING INFORMATION

Please provide the part number, description, and quantity for each item requested.

Indicate precise shipping instructions, if different than the billing address, and purchase order number when applicable.

Credit cards and bank transfers accepted. Please call customer service.

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