SAM® SPLINT
USER GUIDE

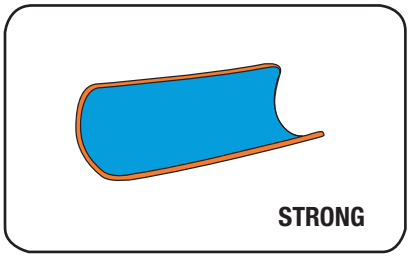
A pocket guide to the most **universal** splint on the planet.

UPPER BODY & EXTREMITIES
LOWER EXTREMITIES
ALTERNATIVE USES

Written by Sam Scheinberg, M.D.

THE CONCEPT: THE BASIC BEND

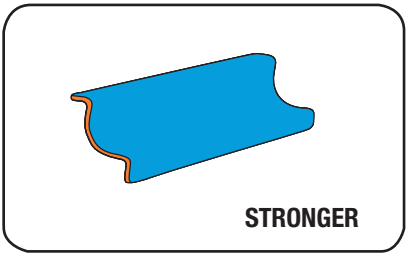
A SAM Splint in its virgin state (without any bends) is completely malleable. When a curve or fold is placed anywhere across its longitudinal axis, it becomes rigid and suitable for splinting almost any bone on the body. Always use curves to add strength and rigidity to the SAM Splint. **The basic C-Curve meets most splinting needs**.



The C-Curve

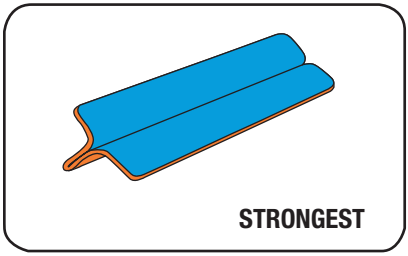
To create the *C-Curve*, place both thumbs in the center of the SAM Splint. Using your thumbs as a brace, pull the edges of the splint toward you to create a shallow *C-Curve*. This curve immediately adds strength and rigidity to the splint. For greater strength, deepen the bend.

ADVANCED BENDS



The Reverse C-Curve

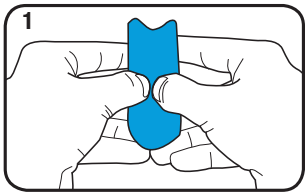
First, form a *C-Curve*. Then add additional strength by bending the edges of the C-Curved splint back in the reverse direction.



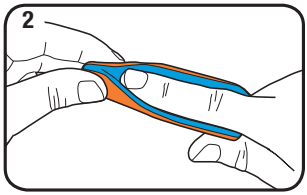
The T-Curve

This bend adds exceptional strength to the splint. To create the *T-Curve,* fold the outer edges of the splint together. Next, bend half of each side of the fold in the opposite direction to create a "T" shaped beam.

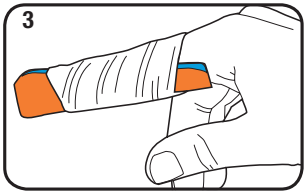
FINGER SPLINT



Step 1: To create a simple finger splint or fingertip guard, first form a SAM Finger Splint into the *C-Curve*.



Step 2: Place the finger in the curved surface of the splint. Squeeze the end of the splint to create a fingertip guard.

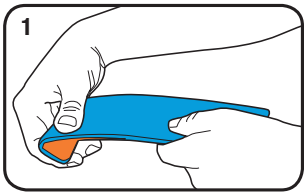


Step 3: Secure with your wrap of choice.

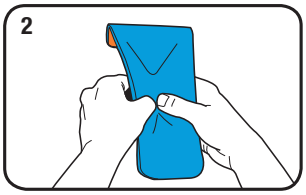
Applications

- Fingertip injuries
- Finger fractures
- Finger lacerations

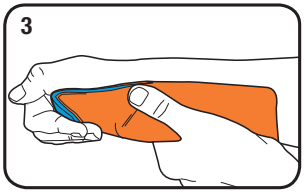
VOLAR WRIST



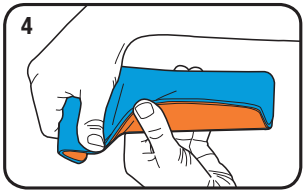
Step 1: Roll the end of a 9-inch (for children) or 18-inch (for adults) SAM Splint over to provide comfort for fingers.



Step 2: Apply a *C-Curve*.

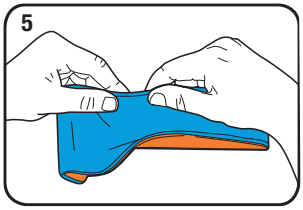


Step 3: Using your own right or left hand and wrist as a template, mold the splint into the position of function.

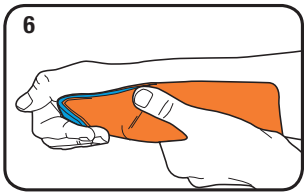


Step 4: Be sure to create a generous curve for the base of the thumb.

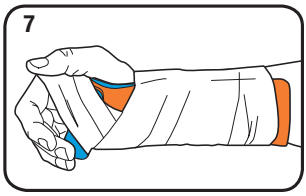
VOLAR WRIST (CONTINUED)



Step 5: Obtain additional strength by folding up the ulnar (little finger) side of the splint.



Step 6: Apply to patient.

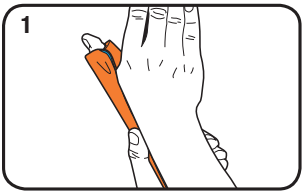


Step 7: Make fine adjustments as necessary. Secure with your wrap of choice.

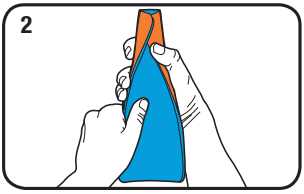
Applications

- Wrist fractures/pains
- Lacerations
- Carpal Tunnel Syndrome
- Night splints

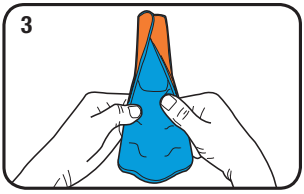
THUMB SPICA



Step 1: Using your own right or left thumb and wrist as a template, mold the thumb spica shape into the selected SAM Splint. A 9-inch splint works well for this.

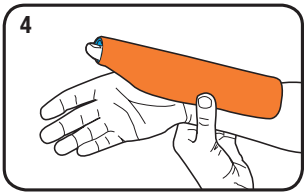


Step 2: Be sure to create a generous curve for the base of the thumb.

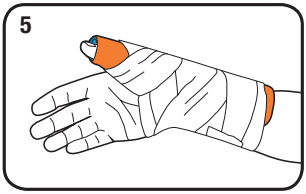


Step 3: You may add *Reverse C-Curves* on the edges as needed for additional strength if desired.

THUMB SPICA (CONTINUED)



Step 4: Apply to the patient. Make fine adjustments as necessary.

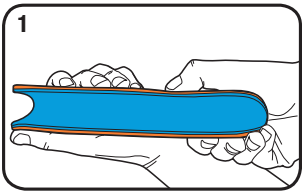


Step 5: Secure with your wrap of choice.

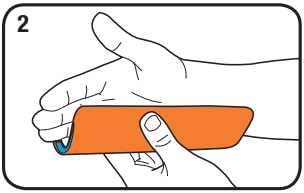
Applications

- Navicular/scaphoid fractures
- Thumb dislocations or fractures
- Ulnar collateral ligament sprains
- Tendonitis

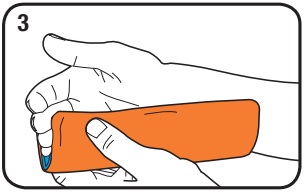
ULNAR GUTTER



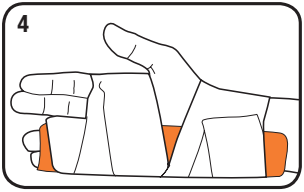
Step 1: Fold a 9-inch SAM Splint length-wise.



Step 2: Using the ulnar side of your own hand and wrist as a template, mold the splint into the desired shape.



Step 3: Apply to the patient.

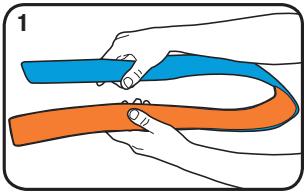


Step 4: Make fine adjustments as needed and secure with your wrap of choice.

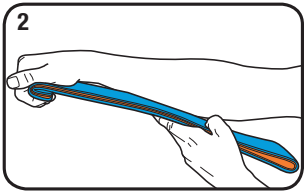
Applications

- Fifth metácarpel fractures
- Little finger injuries
- Ring finger injuries

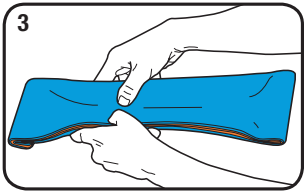
DOUBLE LAYER WRIST



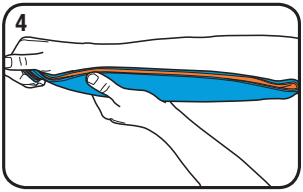
Step 1: Fold a 36-inch SAM Splint in half upon itself.



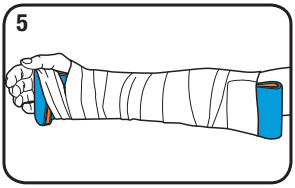
Step 2: Roll the end over to provide more comfort for the fingers.



Step 3: Add strength by creating a *C-Curve*.



Step 4: Using your own right or left arm as a template, mold the splint to the general shape of the wrist and forearm.

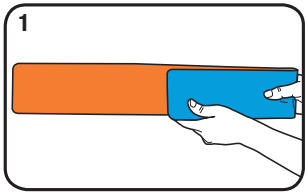


Step 5: Make adjustments to fit the injury and apply to the patient. Only small adjustments should be made once the splint is in place. Secure with your wrap of choice.

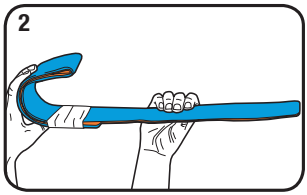
Applications

- Wrist fractures or sprains
- Tendonitis
- Lacerations

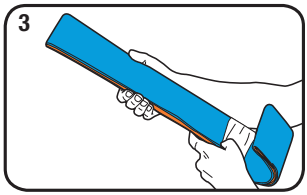
HUMERAL SHAFT (UPPER ARM)



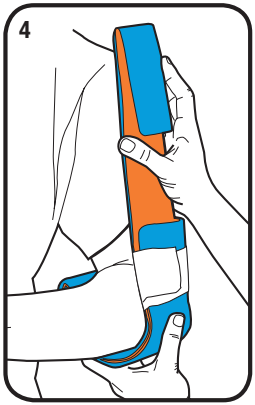
Step 1: Fold one third of a 36-inch SAM Splint upon itself to create a 12-inch section of double-layered splint.



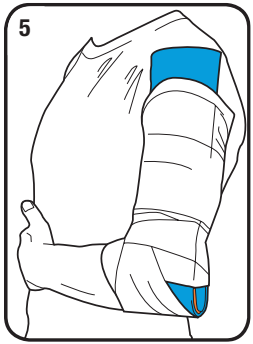
Step 2: Curve the double layer into a fishhook shape and secure the double layer with your wrap of choice.



Step 3: Form a *C-Curve* along the shank of the fishhook for strength and fit.



Step 4: Apply the splint to the patient. Fold any excess splint over the patient's shoulder or back upon itself.

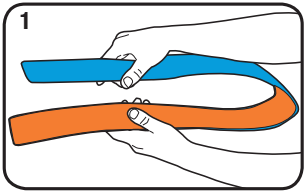


Step 5: Secure with your wrap of choice. Apply a sling and swath for additional support.

Applications

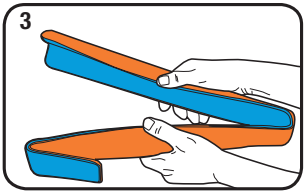
- Humeral shaft fractures

SUGAR TONG

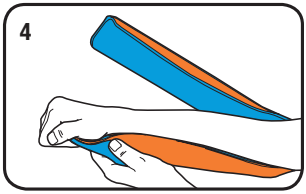


Step 1: Fold a 36-inch SAM Splint in half.

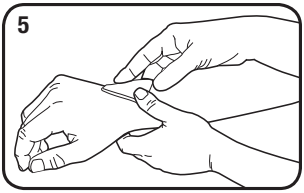
Step 2: To obtain the correct length use the patient's arm as a template. Place the folded splint around the elbow so the end of the top half stops at the knuckles. Fold the bottom half down even with the top.



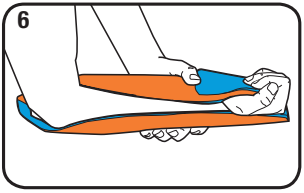
Step 3: Form a *C-Curve* in each half. Extend the *C-Curve* no further than two-thirds the distance down each half. If you extend the curve farther, it will limit your ability to fold the splint around the elbow.



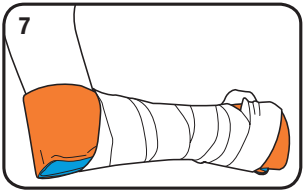
Step 4: Using your own right or left arm as a template, shape the splint to fit.



Step 5: Pad any bony prominences about the wrist and elbow.



Step 6: Fit the splint to the patient.



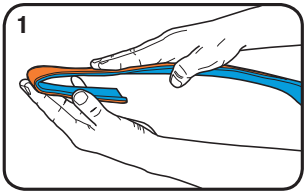
Step 7: Secure splint with your wrap of choice.

Applications

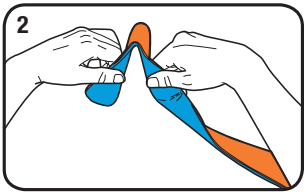
- Dislocated elbow
- Maintaining elbow extension

ADJUSTABLE CERVICAL COLLAR

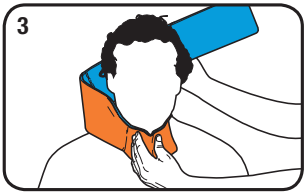
If no pre-formed cervical collar is available, a 36-inch SAM Splint can be used to form an Adjustable Cervical Collar.



Step 1: Fold a 36-inch SAM Splint five inches from the end.



Step 2: Bracing your thumbs on each side of the fold, pull the upper edges toward you to create a *"V"* shaped chin rest.



Step 3: Place the chin rest beneath the patient's chin and lower jaw. Be careful to avoid pressure on the front of the neck. Loop the remaining portion of the splint loosely around the neck.

Step 4: Bring the end forward and down in an oblique direction until it touches the chest. This creates the correct chin-to-chest distance for the chin post.

Step 5: While continuing to support the chin, bring the chest portion of the splint around the original chin rest to create a chin-post. Squeeze to deepen the chin-post.

Step 6: Insert your index fingers in each side of the looped splint. Pull outward.

ADJUSTABLE CERVICAL COLLAR
(CONTINUED)

Step 7: Squeeze to create two side or lateral posts and ensure a snug fit.

Step 8: If the patient is sitting, you can form a back or posterior post in a similar manner.

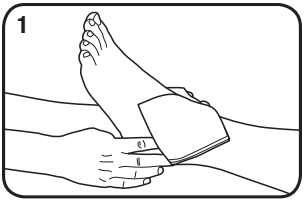
Step 9: Fold up any excess splint. Secure with tape or your wrap of choice.

Applications

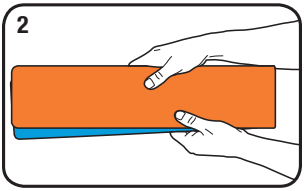
- Suspected neck injuries

ANKLE STIRRUP

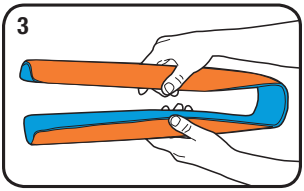
If a patient has to walk in rough terrain on the injured limb, you may choose to leave footwear in place.



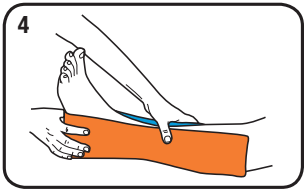
Step 1: If footwear is removed or when the ankle is exposed, place padding above and around the boney prominences on each side of the ankle.



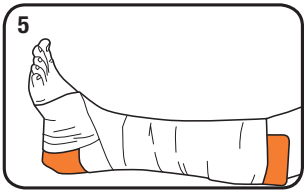
Step 2: Fold a 36-inch SAM Splint to create two equal halves.



Step 3: Apply *C-Curves* two-thirds of the distance down each half. Add *Reverse C-Curves* on the edges if needed for strength. Do not extend the curves further or they will stiffen the splint and limit your ability to fold it around the foot and ankle.



Step 4: Fold the stirrup splint around the foot and ankle.



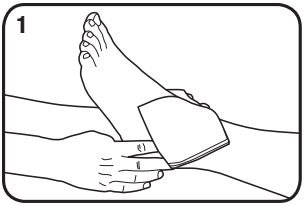
Step 5: Secure with your wrap of choice.

Applications

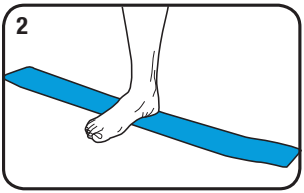
- Ankle fractures and sprains
- Lower leg fractures

FIGURE EIGHT

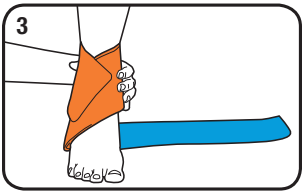
If a patient has to walk in rough terrain on the injured limb, you may choose to leave footwear in place.



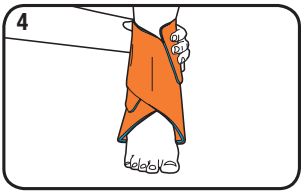
Step 1: If footwear is removed or when the ankle is exposed, place padding above and around the boney prominences on each side of the ankle.



Step 2: Lay a 36-inch SAM Splint flat. Place the patient's foot in the middle of the splint so that the splint lies just forward of the heel.



Step 3: Conform one half of the splint snugly around the ankle.



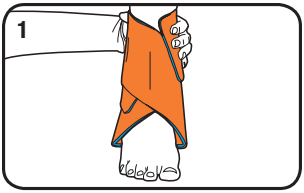
Step 4: Fold the second half of the splint around the first in a Figure Eight position. Crimp as necessary to fit.

Step 5: Secure with your wrap of choice.

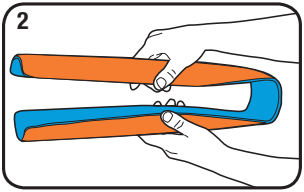
Applications

- Ankle fractures and sprains

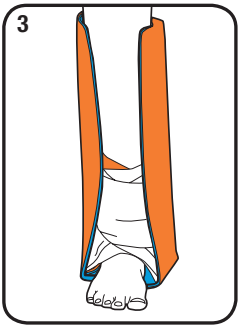
COMBO ANKLE STIRRUP & FIGURE EIGHT



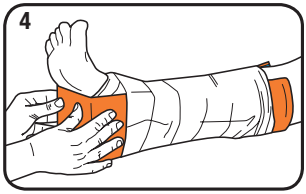
Step 1: First apply a *Figure Eight Splint*, as shown in the previous section of this training manual.



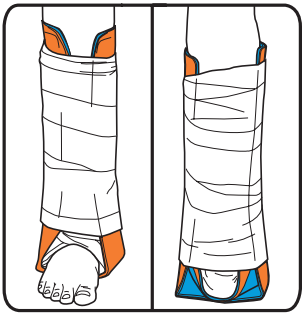
Step 2: Next, prepare an *Ankle Stirrup Splint* as shown in previous section of this training manual.



Step 3: Apply the Ankle Stirrup Splint over the *Figure Eight Splint.*



Step 4: Secure with your wrap of choice and crimp as needed to fit.



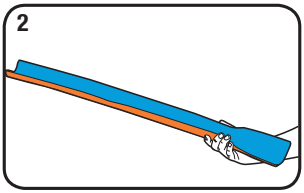
Front *Back*

Applications

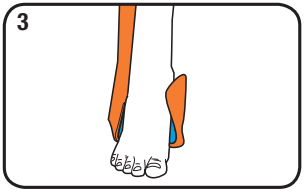
- Ankle fractures and sprains where greater immobilization is needed

DOUBLE LONG LEG

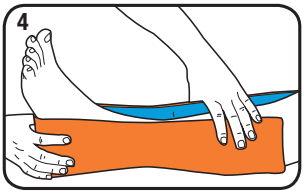
Step 1: If footwear is removed or when the ankle is exposed, place padding above and around the boney prominences on each side of the ankle.



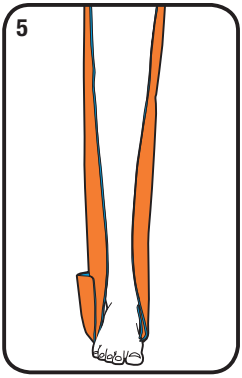
Step 2: Create a long leg splint as shown in the *Single Long Leg* segment of this manual.



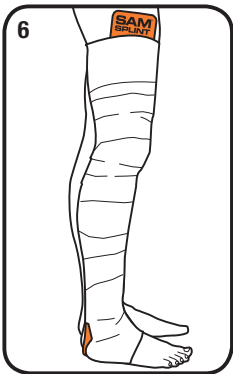
Step 3: Apply the long leg splint to the outer aspect of the leg.



Step 4: Prepare a second splint, identical to the first. Apply this splint to the inner aspect of the leg.



Step 5: Fold the soft, flat end over the first footplate.

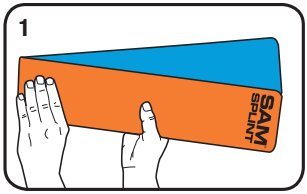


Step 6: Secure both splints to leg with your wrap of choice.

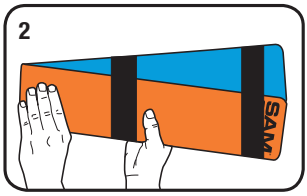
Applications

- Leg fractures (tibula or fibula) where greater immobilization is needed

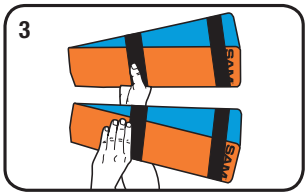
KNEE IMMOBILIZER



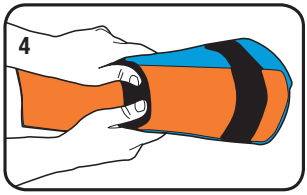
Step 1: Fold a 36-inch SAM Splint in the center to create 2 equal halves. Spread the two halves to produce a fan-shaped splint, wider at the top for the thigh and narrower at the bottom for the calf.



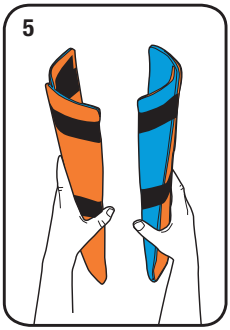
Step 2: Apply tape to the top and middle portions of the splint to maintain the fan shape.



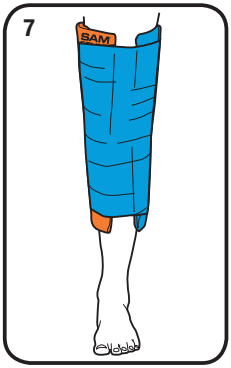
Step 3: Create a second fan shaped splint.



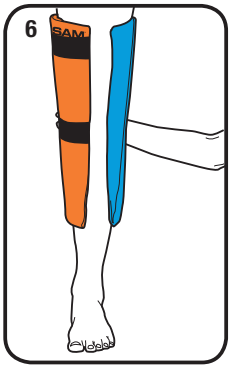
Step 4: Form a *C-Curve* in each SAM Splint.



Step 5: The *C-Curves* should appear as above.



Step 7: Secure with your wrap of choice.



Step 6: Place one splint on each side of the knee and make fine adjustments to fit.

Applications

- Knee injuries
- Sprains
- Strains