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ISO 9001:2000 AND 13488:1996 CERTIFIED

# SAM<sup>®</sup> SPLINT

the pocket cast<sup>™</sup>

FOR IMMOBILIZING  
BONE AND SOFT  
TISSUE INJURIES

THE GOLD  
STANDARD

THE MOST UNIVERSAL  
SPLINT ON THE PLANET

*Celebrating*  
20 YEARS



LIGHTWEIGHT  
WATERPROOF

REUSABLE  
COMPACT

RADIOLUCENT  
VERSATILE



## THE STORY OF THE SAM<sup>®</sup> SPLINT



Dr. Sam Scheinberg, an orthopedic surgeon for 37 years, knows all about splints and the types of remote settings in which a splint might become necessary. As a trauma surgeon in Vietnam and as an orthopedic surgeon on the Oregon Coast, he saw plenty of both.

What he learned in Vietnam was that the splints of the 1960s and '70s were woefully inadequate. Bulky constructs of wire, cardboard, and all-too-easily punctured air chambers, they couldn't be reused, never seemed to fit, and frequently caused more harm than good. In Vietnam, field medics often ignored them and substituted even more old-fashioned techniques, such as lashing poles and branches (or even parts of a rifle) to the injured limb.

On his return to the U.S., Dr. Sam pondered this problem. He wondered if there was a way to make a lightweight, strong, reliable, reusable splint. One day while he was chewing on a stick of gum, Sam played with the foil gum wrapper. Suddenly, he realized that, flimsy as it was in its normal state, the foil became much stronger when bent into a "U".

The next day, Dr. Sam obtained a larger piece of aluminum and began work on his first prototype. He found that a sheet of thin, soft aluminum appears flimsy, but curved in cross section into the shape of a "C", a "Reverse-C", or a "T", it becomes remarkably rigid. With the right padding materials, Sam realized, it would make an exceptional splint. Having satisfied his curiosity, Sam nearly let the project drop, but his wife Cherrie wouldn't let him. Sam later remarked, "That was the luckiest ten minutes of nagging in my life."

It took years of meticulous experimentation, but by 1985, Sam and Cherrie were selling the first SAM<sup>®</sup> SPLINTs. Today, the SAM<sup>®</sup> SPLINT is the most popular emergency splint in the world, favored not only by emergency crews, but by outdoor enthusiasts, armed services, rescue teams and Himalayan expeditions.

## ■ WHAT IS THE SAM<sup>®</sup> SPLINT?

Acclaimed by emergency care providers and outdoor enthusiasts worldwide (and even beyond Earth, on NASA's space shuttles), the SAM<sup>®</sup> SPLINT is based on an ancient construction principle: **curves are strong.**

Other splints derive their strength from the materials from which they are constructed: metal, wood, plaster, etc. Unfortunately, that means in order to be strong, they are usually heavy, bulky, and not easily adjustable to a wide variety of needs. The SAM<sup>®</sup> SPLINT is built from a thin core of aluminum alloy, sandwiched between two layers of closed-cell foam. Freshly unrolled from storage, the splint is exceptionally pliable. Bent into any of three simple curves, it becomes extremely strong and supportive for any fractured or injured limb.

The reason lies in the physics of curved surfaces—the same physics that allows skyscrapers and bridges to be built of I-beams and hollow columns rather than heavy steel pillars. A flat piece of sheet metal bends easily, but if you mold it into any of several "structural curves," it becomes much more rigid. Many such curves are

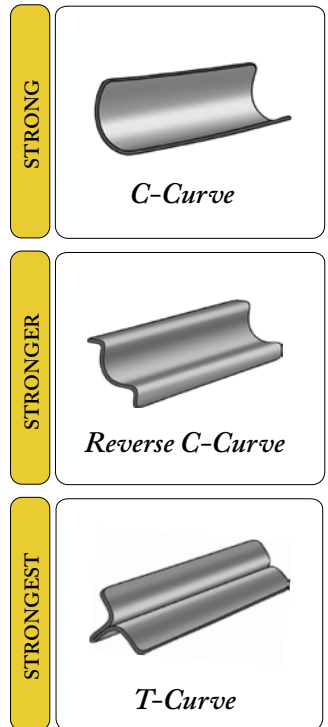
possible, but for splinting with the SAM<sup>®</sup> SPLINT, you need only three basic curves. With these, you can convert a simple SAM<sup>®</sup> SPLINT into something so strong that people have even used it as an emergency canoe paddle or snow shovel. That's strong enough for any conceivable splinting need.

At the same time, the SAM<sup>®</sup> SPLINT is extremely moldable, and soft enough to cut with ordinary household scissors. The result: with the proper choice of curves outlined in the training guide, almost any bone in the body can be splinted. It's even possible to use the SAM<sup>®</sup> SPLINT to create an emergency cervical collar for neck injuries.

### Technical Details

The core of the SAM<sup>®</sup> SPLINT is a long rectangle of ultra-thin aluminum alloy. The outer layers are made of dermatologically safe, latex-free closed-cell foam. The SAM<sup>®</sup> SPLINT is 4.25" wide and comes in pre-packaged lengths of 9", 18" and 36" for splinting everything from a child's arm to a basketball player's leg. They are also available as a finger splint measuring 1.75" x 3.75."

## ■ THE 3 BASIC BENDS

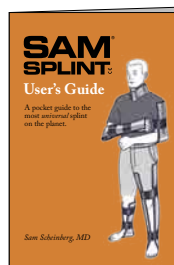


### Curve for Strength:

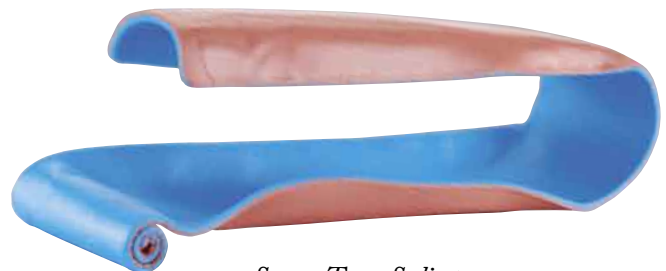
By using the three basic bends demonstrated above, you are able to use the SAM<sup>®</sup> SPLINT to splint any bone in the body.

### Available Sizes:

SAM<sup>®</sup> SPLINT 36"  
SAM<sup>®</sup> SPLINT Junior/18"  
SAM<sup>®</sup> SPLINT 9"  
SAM<sup>®</sup> FINGER SPLINT



For a complete overview of the splinting options available, pick up a copy of the official SAM<sup>®</sup> SPLINT Users Guide.



*Sugar Tong Splint*

**Who Uses the SAM<sup>®</sup> SPLINT?** From outer space to the depths of the ocean, in all conditions of weather and terrain, the SAM<sup>®</sup> SPLINT is the emergency splint of choice for: EMS personnel, Military Medics, Athletic Trainers, Wilderness Rescue, Outdoor Adventurers, First Responders, Safety Engineers, Veterinarians, Hospitals, Ski Patrols and more.



■ FEATURES

- Waterproof
- Reusable
- Lightweight and compact (4 oz. for 4.25" x 36" splint)
- Radiolucent
- Can be rolled or folded for easy storage in emergency kits and backpacks
- Fastens in place with tape or wrap of choice. No extra equipment is needed.
- Not affected by extreme temperatures or altitudes. Even works underwater!
- Closed-pore, impermeable foam surface allows easy cleaning and disinfection. Material compatible with all standard cleaning solutions.

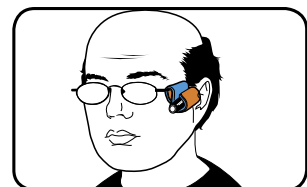
■ ALTERNATIVE USES

Since it was introduced, the SAM® SPLINT has hosted a core group of enthusiasts who seek out innovative and thought-provoking alternative uses for the space age qualities inherent in its material. Canoe Paddle. Emergency Sandals. Gas Cap. Flashlight Holder. Wash Basin. These are just a few of the alternative uses SAM® SPLINT users have written about and photographed for our mailbox. Our customers are creative, energetic people. Many of our users are outdoor enthusiasts accustomed to making do with a minimum of gear

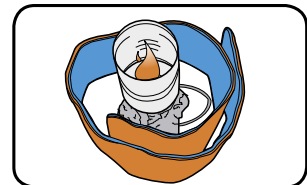
from which, with a little bit of ingenuity, they can fashion just about anything they need.

Renowned Survival Expert Peter Kummerfeldt says, "In a survival situation the real value of a piece of equipment is not just that it accomplishes what it is designed to do but that it can also be used to solve many other problems faced by those in trouble. I have modified a SAM® SPLINT into everything from an oil pipe cover to a funnel, wind screen and even a frame for a wash basin."

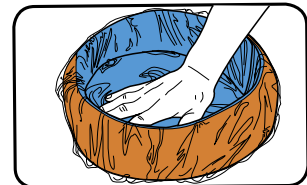
Send us your *Alternative Use* stories, pictures and ideas! We'll publish illustrated versions of our favorite submissions on [sammedical.com](http://sammedical.com) and in the next printing of the *SAM® SPLINT User's Guide*. Send to [info@sammedical.com](mailto:info@sammedical.com) (photos < 1Mb) or via postal service to SAM Medical Products, 7100 SW Hampton St, Suite 217, Portland, OR 97223.



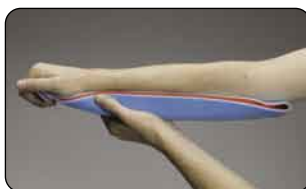
LIGHT HOLDER



FLAME GUARD



WASH BASIN



**Combination Ankle Stirrup / Figure-8:**

Use 2 splints for extra support on extreme sprains or fractures! Use especially when weight bearing may be required.



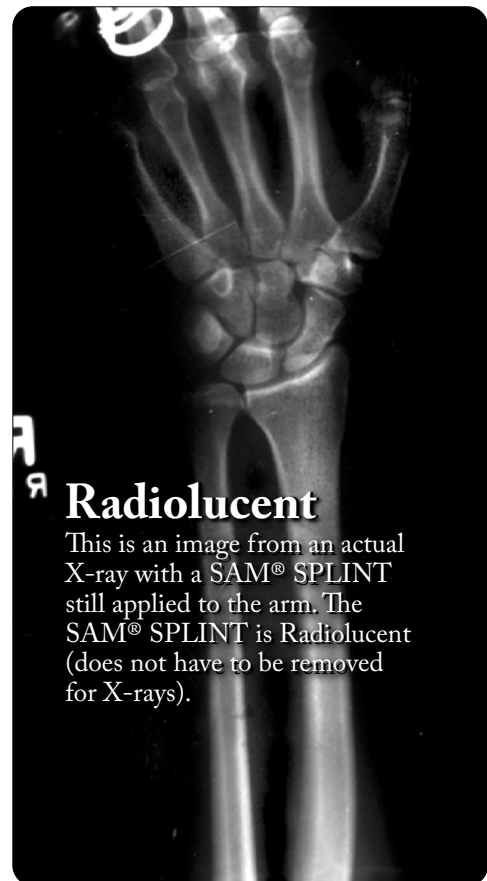
**Double Layer Wrist:**

In the double-layer configuration, one can easily see how the splint is custom molded in each unique application. The two-layered splint is curved into the basic bend, molded to your own extremity and then applied to the patient. Small adjustments are made after applying the splint to the patient.



**Humeral Shaft:**

There are not many splints you can do this with! Humeral shaft fractures are difficult to splint. See manual for complete instructions.



**Radiolucent**

This is an image from an actual X-ray with a SAM® SPLINT still applied to the arm. The SAM® SPLINT is Radiolucent (does not have to be removed for X-rays).

**Safety Tips:** If prolonged use is anticipated (more than a few hours), place absorbent material, such as cotton cloth, between the splint and the skin to prevent skin irritation and odor. Also, to prevent uncomfortable pressure points during prolonged use, place soft padding (such as gauze pads) around all bony prominences. When cutting the splint avoid using serrated scissors as they may produce sharp edges. After cutting the splint, roll the cut end over or apply tape to cover any exposed metal.

**MoMA**

The SAM® SPLINT will be featured in the exhibit *SAFE: Design Takes on Risk* at the Museum of Modern Art opening Fall '05. Visit [www.moma.org](http://www.moma.org) for details.

**The SAM® SPLINT is the most *universal* splint available. It can be used to splint any bone in the body.**

### UPPER EXTREMITIES & NECK

- Finger Splint
- Thumb Splint
- Short Arm Wrist Splint
- Ulnar Gutter Splint
- Double Layer Wrist Splint
- Sugar Tong Splint<sup>3</sup>
- T-Beam Wrist Splint
- Dislocated Elbow Splint
- Upper Arm Splint<sup>2</sup>
- Adjustable Cervical Collar Splint<sup>1</sup>

### LOWER EXTREMITIES

- Ankle Stirrup Splint<sup>5</sup>
- Figure-8 Splint
- Combo Ankle & Figure-8 Splint
- Single Long Leg Splint
- Double Long Leg Splint<sup>4</sup>
- Knee Immobilizer Splint



“Even those outside the medical community, when faced with stabilizing an injury to an extremity, can use a SAM® SPLINT effectively. They require little training to use, they are simple to apply and most importantly they are effective. I always carry one in my emergency equipment. It is my method of choice for those infrequent situations when the need to stabilize a fracture is required.”

**Peter Kummerfeldt**  
Renowned Wilderness Survival Expert/Trainer  
OutdoorSafe.com



“The SAM® SPLINT is a versatile tool that should be a part of every certified athletic trainer’s field kit.”

**Ron Porterfield**  
Athletic Trainer, Tampa Bay Devil Rays

“For 20 years I have advised medical personnel on what medical gear to take on expeditions. These folks often ask me what I include in my kit, no matter where I’m traveling, no matter how short the trip . . . The answer: a few important medications, some tape and always a SAM® SPLINT. No other device allows for so many variations for treating an unimaginable variety of orthopedic emergencies.”

**Howard J. Donner, MD**  
Medical Operations Coordinator, NASA

“This splint is pure genius...light and compact, yet strong and resilient. I keep one in my pack on every hike up to and back from Everest Base Camp. I won’t leave home without it!”

**Luanne Freer, MD, FACEP**  
President, Wilderness Medical Society;  
Medical Director, Yellowstone National Park  
Director, Everest Base Camp Medical Clinic

## PUBLICATIONS



The SAM® SPLINT is featured in a wide variety of publications for wilderness and emergency care. The list below includes a few of our favorites.

**Wilderness First Aid: Emergency Care For Remote Locations**, Howard D. Backer, M.D. American Academy of Orthopedic Surgeons. Pg. 115; Copyright: Jones & Bartlett Publishers 1998

**First Aid Handbook/National Safety Council**, Alton L. Thygeson. Pg. 137, 138; Copyright: Jones & Bartlett Publishers 1995

**Field Guide To Wilderness Medicine**, Paul S. Auerbach, M.D.; Howard J. Donner, M.D.; Eric A. Weiss, M.D.; Pg. 56, 97, 117, 120, 136, 171, 173; 1st Edition, Copyright: Mosby, Inc. 1999

**Sports Injury Care**, Thomas E. Abdenour, Alton L. Thygeson. Pg. 90, 122, 130, 135, 149, 159, 237; Copyright: Jones & Bartlett Publishers 1993

**The Outward Bound: Wilderness First-Aid Handbook**, Jeffrey Isaac, P.A.—C. Pg. 82, 97, 222; Copyright: The Lyons Press 1998

**Wilderness Medical Associates: Field Guide**, James Morrissey, NREMT-P, WEMT. Pg.37, 72; 2nd Edition, Copyright: Wild. Medical Assoc., Inc. 1997

**Wilderness Medicine: Beyond First Aid**, William W. Forgey, M.D. Pg.130, 137, 140, 143, 150, 217; 5th Edition, Copyright: The Globe Pequot Press 2000

**Wilderness 911**, Eric A. Weiss, M.D. Pg. 69, 108, 212; 1st Edition, Copyright: The Mountaineers 1998

**Wilderness First Aid: When You Can’t Call 911**, Gilbert Preston, M.D. Pg. 174; Copyright: Falcon Publishing Co. 1997

**SAM** MEDICAL PRODUCTS™

FOR LIFE ON THE EDGE™