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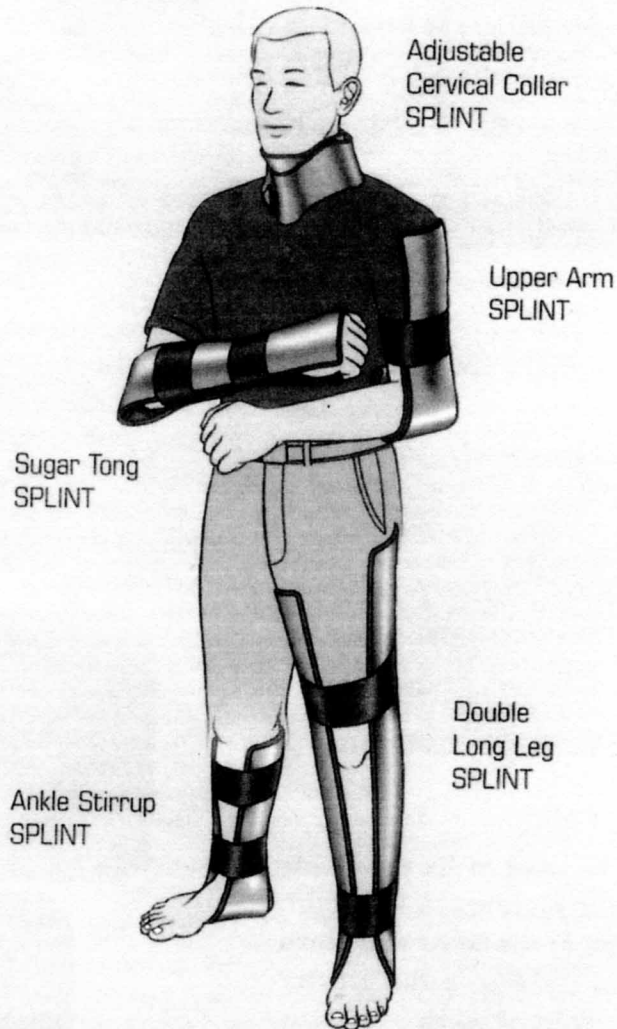
Journal of Special Operations Medicine

A Peer Reviewed Journal for SOF Medical Professionals



Dedicated to the Indomitable Spirit & Sacrifices of the SOF Medic

SAM SPLINT II™
military version
the pocket cast™



Upper Extremities & Neck Splints

Finger Splint, Thumb Splint, Short Arm Wrist Splint, Ulnar Gutter Splint, Double Layer Wrist Splint, Sugar Tong Splint, T-Beam Wrist Splint, Dislocated Elbow Splint, Upper Arm Splint, Adjustable Cervical Collar Splint

Lower Extremities Splints

Ankle Stirrup Splint, Figure 8 Splint, Combination Ankle & Figure 8 Splint, Single Long Leg Splint, Double Long Leg Splint, Knee Immobilizer Splint



A. The basic bend



Curve the SAM® Splint lengthwise to create a longitudinal bend which gives the splint strength.



B. Add strength with a different bend



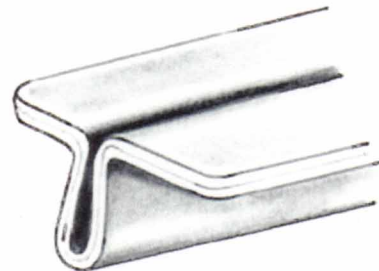
Curve the outside edges the opposite direction to make it even stronger.



C. Make the SAM® Splint even stronger



Double the SAM® Splint or create a "T-bend" for extra strength.



SAM Splint use for Elbow Flexion Control



The SAM Splint can be used to fix the elbow in flexion as seen in the pictures to the right. A sling can be attached at the wrist and worn around the neck for extended use and greater comfort.



SAM® Splints for Special Ops Medicine Part 1

Samuel Scheinberg, MD

In 1984, a thin, foam covered “dead soft” strip of radiolucent aluminum created a paradigm shift in emergency fracture immobilization. This new product, known as the SAM® Splint, was clearly different from its predecessors. It was extremely lightweight and soft - seemingly far too weak and flimsy to function as a splinting device.

On closer examination, however, its apparent weaknesses were actually strengths. Its light weight was appreciated by those carrying heavy backpacks, and the soft aluminum allowed the splint to be easily rolled or folded for storage.

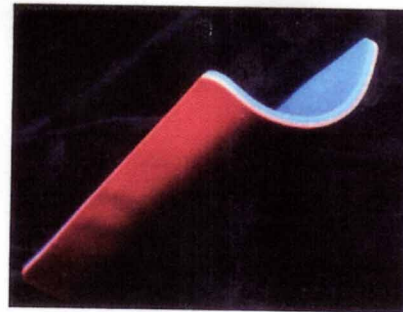
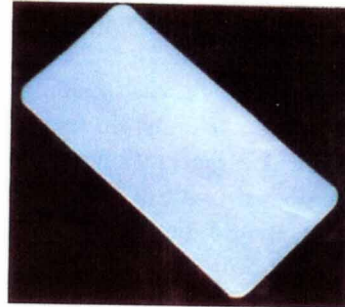
In addition, a single curve or bend placed in cross section along any longitudinal axis imparted remarkable rigidity. This strength along with the versatility permitted by malleability made the SAM® Splint suitable for splinting almost any body part.

This article reviews the general properties of the splint. It contains information regarding construction, principles of use, and environmental tolerance - plus comments on cutting, cleaning, and precautions. It describes the classic applications on the upper and lower extremities as well as three lesser-known techniques for use in the field.

The SAM® Splint is a long rectangle of zero temper, very thin aluminum alloy sandwiched between two layers of high quality dermatological safe ethylene vinyl acetate closed pore foam. In its virgin state (without any bends) the splint is completely malleable.

The SAM® Splint is radiolucent, almost invisible on x-ray, and should not be removed for radiographs. It is designed to function through the extreme ranges of normal ambient temperatures. It is waterproof, but not fireproof. The closed pore EVA foam will not flash when exposed to flame, but will begin to melt and eventually ignite after approximately 8 seconds.

The SAM® Splint is easily cut with ordinary scissors; trauma shears are not required. Cutting exposes the thin aluminum core. Unless a serrated scissor has been used, the aluminum is usually not sharp. To prevent any injury from the exposed edge, fold the edge on itself one or two times. Covering the edge with tape is also effective.



The foam used on the SAM® Splint was selected for its “clean-ability.” Whether cut or used intact, the splint can be cleaned with antiseptic soap and water or with almost any protocol cleaning solution. I prefer a half percent hypochlorite solution (9 parts water to 1 part common household bleach). The closed pore foam, which promotes effective cleaning, does not absorb perspiration or allow the passage of air. This does not present a problem during short-term use. If, however, the splint is to be worn for prolonged periods (hours to days), some absorbent materials, such as cotton cloth, cast padding, or a double layer of tubular stockinet, should be placed over the splints to prevent skin maceration and odor. Although the EVA foam does provide some padding, additional soft padding should be placed around all bone prominences when prolonged use is contemplated.



Unusual Uses....



Picture showing how to form Sam Splint for protection of an impaled object



Veterinary Uses

An Alaskan animal rehab center sent us this great photo of an “eagle boot.”

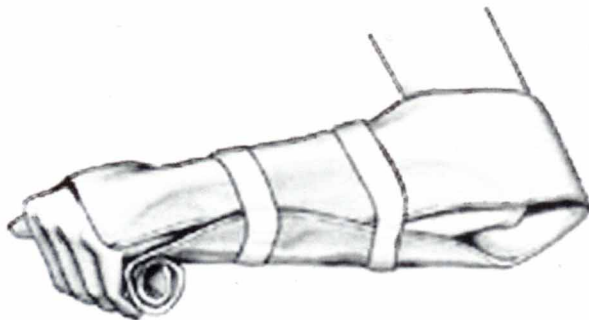
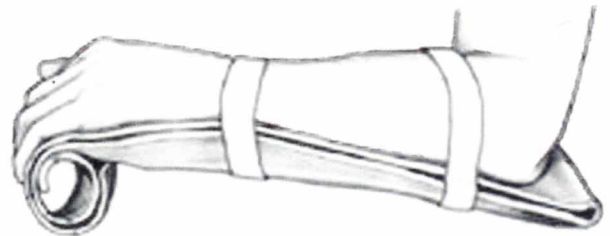


The SAM® Splint is suited for both adults and children, and can immobilize almost any bone in the body, including the neck. The SAM® Splint is lightweight, weighing only 4 oz., and may be rolled or folded for easy storage in emergency kits or back packs. It will not puncture and is not affected by extreme temperature or altitude. From outer space to the ocean depths, in every terrain and weather condition, as the standard for pre-hospital and outdoor medical care, the SAM Splint is recognized in emergency and wilderness medicine text.



Splinting of a fractured ankle

Splinting of a fractured wrist



Splinting of a fractured forearm

Samuel Scheinberg, MD, graduated from the University of Tennessee Medical School in 1965. He did his general surgical residency from 1966 to 1967 at Mount Zion Hospital in San Francisco, CA where he received the Abe Serbue Award for most outstanding resident in orthopedics. He served in the Army from 1967 to 1969 during which time he was a surgeon in the Republic of Vietnam from 1968 to 1969. Upon discharge from the military he completed his orthopedic residency at the University of Louisville, KY from 1969 to 1972 and the University of Edinburgh, Scotland from 1972 to 1973 under a National Arthritis Foundation Grant. Dr. Scheinberg went into a private general orthopedic surgical practice in 1973 to 1993 in Lincoln and Tillamook counties, Oregon. He is a Board Certified Orthopedic Surgeon.

Dr. Sam Scheinberg is the inventor of the SAM® Splint, SAM™ Soft-Shell Splint, the SAM® Instructional Anatomical Manikin, and the SAM™ Blist-O-ban Skin-Friction Relieving Device. He is the co-inventor of the SAM® Pan Flexible Container.

Dr. Scheinberg is the co-founder and CEO of The Seaberg Company, Inc., Newport, Oregon, also known as Sam Medical Products, CYA™ Publications, Medical Operations Management Co., Denver, Colorado and Co-Founder/CEO/Chairman of the Board of Advanced Wound Systems, LLC Newport, Oregon.