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## Medicine for the Outdoors



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Wilderness Medicine

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## SAM Splint versus Philadelphia Collar

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Wednesday, January 20, 2010



In an issue of Wilderness and Environmental Medicine (Volume 20, Number 2, 2009), Todd McGrath and Crystal Murphy have written an article entitled "Comparison of a SAM Splint-Molded Cervical Collar with a Philadelphia Collar." The objective of this study was to compare the effectiveness of a SAM Splint molded into a cervical collar with that of a Philadelphia collar (commonly used by paramedics and others to hold a neck motionless during transport after an accident) at limiting movement of the cervical spine (neck) in a variety of common predicted directions of motion.

Healthy volunteers participated in the study. A goniometer was used to measure degrees of maximal extension (bending the neck backwards) and lateral motion (left and right) with each type of collar. After data analysis, it was concluded that the results of this study suggest that the SAM Splint, when molded into a cervical collar, is as effective as the Philadelphia collar at limiting movement of the cervical spine.



This is good news for rescuers, backpackers, athletic medical responders and others who have occasion to splint an injured or potentially injured neck in the field. I have used SAM Splints to fashion cervical collars for many years, because my observations were that it could be quickly configured into a reliable and functional splint for this purpose, so it is nice to have my suspicions confirmed. There is certainly nothing wrong with using a (preferably, lightweight) Philadelphia collar or other similar pre-molded appliance to maintain a neck motionless when necessary. The general considerations will be space, weight, ease of use, and adaptability to a variety of patient sizes and conditions. Furthermore, it cannot be overemphasized that if you wish to use a SAM Splint or any other rescue product in the outdoors for which operator skill and experience are required, you should take the time to practice beforehand in a controlled and non-frenetic environment.

Tags: [SAM Splint](#), [Philadelphia collar](#), [cervical spine immobilization](#), [wilderness medicine](#), [outdoor medicine](#), [healthlineLabels: cervical collar](#), [cervical spine](#), [neck injury](#), [Philadelphia collar](#), [SAM Splint](#)

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