



History of the Star of Life

The Star of Life is an easily recognized symbol of EMS. It is seen on the sides of ambulances, on signs directing people to emergency rooms, and on paramedic patches. However, many people, including many EMS people, don't know the meaning and history of the Star of Life.

Before 1966, it was common for patients to be transported to the hospital in vehicles operated by funeral homes, and few hospitals had doctors trained in emergency medicine. In the late '60's, a study by the National Academy of Sciences was published called Accidental Death and Disability: The Neglected Disease of Modern Society. Dr. Ricardo Martinez, Administrator of the National Highway Traffic Safety Administration (NHTSA) stated in a commemorative edition of this Study: "This paper, known as the 'White Paper' revolutionized the way we view and manage injured patients in the United States." The paper studied auto accidents and the injuries they cause; however, it also studied the "system," or lack of an emergency medical care system, that was in place at the time. It documented many deficiencies in emergency care. In NHTSA Leading The Way, the White Paper is cited and NHTSA states that many recommendations were made to improve medical response to injuries. It was time to make a change in America and develop a true emergency medical care system.

Carl Post, in his book Omaha Orange – A Popular History of EMS in America, explains how NHTSA, under the Department of Transportation, was tasked with overseeing a program that authorized planning for ambulances and equipment to go in them, after Public Law 89-56 was passed in 1966.

Under the Department of Transportation, EMT standards were perfected, paramedic standards were developed, and vehicles were purchased for EMTs and paramedics to use when responding to calls. To easily recognize these emergency care individuals and vehicles, a symbol needed to be designed. It would become known as the "Star of Life."

Arline Zatz wrote about the history of the Star of Life in an article for the July-August 1992 Rescue-EMS Magazine. In the article she indicated that at first, EMS used a red cross with four bars, which is a trademark of the American Red Cross (ARC) and the International Red Cross (ICRC). EMS organizations in the late '60's and early '70's used it or an orange version called Omaha Orange.

Paramedic Mitch Mendler, on the <http://www.risherambulance> web site, indicated that the ARC did not like EMS using the cross, and the ARC stated it was a violation of an international treaty, backed up by federal law. The treaty and law states that the red cross in any form cannot be used by anyone not connected with the ICRC. Johnson & Johnson is the only corporation that can do this because it was grand fathered under the federal law.

Because the Red Cross symbol could not be used, Leo R. Schwartz, then Chief of the EMS Branch, NHTSA, took the red Medical Identification Symbol (Medic Alert) of the American Medical Association, changed it to blue, and placed it on a white square. This new Star of Life had six bars with a serpent entwined around a staff in the middle. It was registered as a certification mark on February 1, 1977 with the Commissioner of Patents and Trade Marks. The trademark remained in effect for twenty years. In an e-mail discussion, Howard Paul talked about whether a federal agency can obtain copyright protection on things they develop. There has been a lot of controversy over the years about whether anyone could use the Star of Life without DOT permission. However, with or without that protection, this star with the serpent and staff in the middle has become the symbol of emergency medical services.

Meaning of the Six Bars of the Star of Life

The six bars of the Star of Life represent six distinct phases of an EMS response – detection, reporting, response, on scene care, care in transit, and transfer to definitive care. These phases are considered critical to producing a good outcome for the patient.

The phases are:

1. **Detection:** Citizens must first recognize that an emergency exists and must know how to contact the EMS system in their community. This can be by several different methods such as dialing 9-1-1, using a seven digit local emergency number, or using amateur radios, or highway call boxes.
2. **Reporting:** Callers are asked specific information so that the proper resources can respond. In an ideal system, certified Emergency Medical Dispatchers (EMDs) ask a pre-defined set of questions. If someone were having a heart attack, then they would look under the heart attack algorithm for appropriate questions to ask and also give appropriate pre-arrival instructions (such as CPR). In this phase, dispatchers also become a link between the scene and the responding units and can provide additional information as it becomes available.
3. **Response:** This is the response of the EMS resources to the scene. This may be a tiered response with First Responders and EMTs responding initially and backed up by paramedics shortly thereafter (EMS...A System To Save Lives, 2). It may mean that a fire engine and crew are also dispatched to help with lifting and moving the patient or getting them out of a smashed automobile.
4. **On Scene Care:** A lot of types of care can be provided on the scene, versus waiting until the patient arrives at the hospital. Standing orders and radio or cellular contact with the emergency physician has broadened the range of on-scene care that can be provided. A long algorithm of procedures and drugs may be used before the patient is removed from the scene. When the EMS system was just getting started, all patients were transported to a hospital. Today, in certain instances such as cardiac arrest, or when a patient is not seriously ill or injured, not all patients are transported from the scene to a hospital.
5. **Care in Transit:** As stated earlier, patients were once transported in hearses or station wagons, with nobody taking care of them in the back. With the advent of federal regulations and the maturing of EMS, specially designed trucks now carry mobile oxygen, suction, patient monitoring and communications equipment, as well as special drugs for emergency care of patients (EMS...A System To Save Lives, 2). Station wagons and hearses have been replaced with huge 15,000-pound trucks that our EMS personnel call “monster medics.”

6. **Transfer to Definitive Care:** Up until the passage of the Trauma Care Systems Planning and Development Act of 1990, a patient might be seen in the emergency room (ER) by a physician trained in a certain kind of specialty, such as a cardiologist or a surgeon (NHTSA Leading The Way, 7). They usually did not have the training necessary to address the many types of injuries and illnesses that present themselves in an ER. Today, there are board certified emergency medical care physicians waiting to help patients. Nurses now receive certification in emergency care and specialized training in trauma. Hospitals may hold special levels of designation in trauma care. This means they have additional specific equipment, rooms and physicians available for the most traumatically injured patients (NHTSA Leading the Way, 12). There are specialized burn centers to handle burn patients and special children's hospitals that handle only pediatric patients. Definitive care has come a long way, as has EMS, in a relatively short time.

According to Paramedic Mitch Mendler, originally, the Star of Life was supposed to be something different for the different types of EMS personnel. For administrative and dispatch personnel, the Star of Life was to have a silver colored edge and the staff of Aesculapius, a silver colored serpent. For EMT's and Paramedic's patches, the edge was supposed to be gold in color with a gold serpent. Jeffrey Linzer indicated in an e-mail message that there is also a version that is supposed to be used to identify receiving facilities, such as hospitals or emergent care facilities [a white star on a blue background].

EMS is a system and the Star of Life represents that system. The system has grown immensely over the past thirty years and will be changing and evolving rapidly in the 21st century. The Ohio state website, Division of EMS, discusses how the EMS system depends on many different elements to make it one of the best in the world. It depends on an informed public being able to recognize when to call for emergency help, the availability of specially trained people and equipment, and a network of specialized trauma centers. The Star of Life symbolizes these elements and, hopefully, once people understand the meaning of the Star, they will understand what actually makes up the EMS system.



History of the Staff of Aesculapius

On a website by the Irish Emergency Ambulance Resources (<http://ambulance.eire.org>), there is a history of the Staff of Aesculapius. The snake and staff in the center of the symbol portray the staff of Aesculapius who, according to Greek mythology, was the son of Apollo and the mortal maiden Coronis. Apollo was told to instruct his son in the ways of medicine and healing. Aesculapius became an excellent healer of the sick – too excellent. Zeus, the God of Gods, felt that Aesculapius' powers were beyond the powers of mortal men and killed him where he stood with a bolt of lightning.

After Aesculapius death, he was worshipped and thought to be a God of healing. People would sleep in his temples. He would appear to them in their dreams offering cures and remedies. Drawings of Aesculapius usually show him in a standing position, dressed in a long cloak, holding a staff with a serpent coiled around it.

Another reason for using the serpent and staff may come from the Bible, in Numbers 21:8 and 9. It makes reference to a serpent on a staff.

“And the Lord said unto Moses, Make thee a fiery serpent, and set it upon a pole: and it shall come to pass, that every one that is bitten, when he looketh upon it, shall live. And Moses made a serpent of brass, and put it upon a pole, and it came to pass, that if a serpent had bitten any man, when he beheld the serpent of brass, he lived.”