

## SCRIPT

## New Shock Trauma Center

This building is dedicated to saving lives. The R Adams Cowley Shock Trauma Center is the world's only free-standing trauma center devoted to the critical care needs of trauma patients. It is named for the founder and first director of the Shock Trauma Center and the Maryland Institute for Emergency Medical Services Systems. MIEMSS coordinates the country's first statewide network of emergency communications, transportation, and medical facilities. This comprehensive network offers continuity of care from the scene of injury to in-hospital treatment through rehabilitation.

Maryland's new Shock Trauma building opened on February 13, 1989. During its first year of operation, more than 3,300 patients were admitted for treatment of life-threatening injuries. For 20 years prior to the opening of this building, Shock Trauma was housed in a cramped five-story complex adjacent to University Hospital. The staff members who worked so well under those conditions helped to design this modern facility.

The Shock Trauma Center is one component of Maryland's emergency medical services system. The goal of this EMS system is to get patients to the most appropriate medical facility in the shortest possible time.

A statewide communication network links ambulances, helicopters, and hospitals. When someone calls 9-1-1, the EMS system is activated. Prehospital care personnel, trained in established procedures, respond to the scene. They may transport the patient in one of the ambulances run by local fire departments and rescue squads. If needed, they can request a med-evac helicopter operated by the Maryland State Police Aviation Division. Their aircraft are located strategically throughout the state. In 1989, the state began to update its helicopter fleet with faster, more powerful, twin-engine helicopters. Each Aerospatiale Dauphin can carry the pilot, two patients, and two paramedics.

Medical facilities in the EMS system include

- o 49 hospitals with 24-hour emergency departments;
- o 20 specialty referral centers with expertise in the treatment of specific types of injury; and
- o 10 designated areawide trauma centers.

The most severely injured patients are brought here to the Shock Trauma Center. The majority have multitrauma, head, or spinal injuries.

On the heliport on top of the building or at the sheltered ambulance entrance on the ground level, patients are met by trauma teams. They are then transferred to one of the three elevators reserved for the movement of patients.

Upon arrival in the second-floor admitting/resuscitation area, patients are met by traumatologists, anesthesiologists, trauma nurses, and technicians. Neurosurgeons and specialists in thoracic, orthopaedic, and plastic surgery are often involved in this early phase of treatment.

The admitting area has 10 self-contained bays and an 11th bed for those requiring isolation. Each one has access to an overhead x-ray arm used for taking admission radiographs. Supplies and equipment are organized to be within easy reach during the intense moments of resuscitation and stabilization.

On the same floor are five operating rooms. These include two large rooms that can accommodate patients who need orthopedic surgery or simultaneous operative procedures. A sixth room designated for organ procurement can be used for trauma surgery as needed.

Adjacent to the admitting area and operating rooms is the radiology suite, where CT scans, angiograms, and bone x-rays are performed. The CT scanner is unique in the country. A computerized voice guides patients through the positions needed for scanning. Scans are completed within seconds, giving clinicians valuable diagnostic information.

In rooms between the ORs, flash sterilizers are used to disinfect surgical equipment. Two operating microscopes and special radiographic equipment such as fluoroscopy machines are available to surgeons.

Also on the second floor is the postanesthesia care unit, with six recovery beds plus an isolation room. Here patients recover from anesthesia before they are moved to beds on other floors. Patients recovering from same-day surgery are also monitored in this area.

A 24-hour STAT lab on the third floor is equipped with the latest analyzing equipment to provide crucial information regarding the status of patients. Samples are analyzed for characteristics such as basic hematology, coagulation, chemistries, and blood gases. STAT turnaround times for test results range from 2 to 12 minutes. Approximately 2700 tests on blood and urine samples are completed each day.



Each of the three patient care floors has 24 critical care/intensive care beds. On one of these floors, the Neurotrauma Unit offers specialized care to patients with head and spinal cord injuries. Patients with multiple system injuries are monitored and treated on the other two floors.

All the patient cubicles are identical in configuration. A power column at each bedside allows nurses to gain 360-degree access to the patient to administer care while monitoring physiologic parameters. Either critical care or intensive care can be provided in each cubicle; therefore, patients do not need to be moved from unit to unit as they progress in their recovery. Break-away glass doors allow beds and large equipment to be moved into and out of patient cubicles.

A 57-bed subacute/intermediate care unit and a 9-bed acute rehabilitation unit for recovering Shock Trauma patients are linked to the new building. Adding those beds to the 72 in the trauma center gives a total of 138 patient care beds. Seventy percent of Shock Trauma patients are discharged to their homes;

others continue their recovery in rehabilitation centers.

Many patients return to the Shock Trauma Outpatient Center for continuing medical treatment in their long-term recovery. The Outpatient Center has seven examination rooms and a physician/patient consultation room.

The hyperbaric medicine department offers specialized treatment for conditions such as gas gangrene, carbon monoxide poisoning, and smoke inhalation. In addition to being the state's specialty referral center for hyperbaric medicine, the department is part of the Diver's Alert Network. Following treatment in the hyperbaric chamber, patients are transferred to the appropriate level of care in the trauma center.

In the design of this building, careful attention was given to the needs of the relatives and friends of patients. Waiting areas are located on each patient care floor as well as near the offices of Family Services staff members. These counselors provide support and information during the stressful times associated with the traumatic injury of a

loved one. Psychiatric and psychological counselors are also on staff to assist patients with mental health concerns or alcohol or drug abuse problems.

Special therapies are provided as part of the center's multidisciplinary approach to trauma care. Speech-language pathologists, physical therapists, and respiratory therapists begin their interactions with patients early in the hospital course. Many programs of treatment started at the trauma center continue through the rehabilitative phase of recovery.

A sophisticated computer network links all clinical components of the trauma center. It is accessible from 110 bedside and 50 administrative workstations in the admitting area, operating rooms, patient care cubicles, and staff offices. The network allows access to information about any patient as well as library resources, electronic mail, and EMS system updates. It also collects information about each patient's response to treatment, providing a valuable data bank for research investigations.



Studies of the patient population at the Shock Trauma Center allow scientists to learn more about the causes of injury, the body's reaction to injury, and the outcomes of rehabilitation. The goals of these investigations are to enhance patient care and minimize disability.

The activities in this building are focused on saving lives. From initial assessment through all phases of recovery, the members of the trauma team are committed to excellence. Every possible effort is made at this center to provide the best care for each patient. The citizens of Maryland deserve no less.