

Major Trauma, Minor Impact

To quickly treat the complex injuries of victims of shootings, stabbings, or car accidents, Cedars-Sinai's trauma surgeons must utilize the latest techniques, and often invent new ones.

BY ROBIN HEFFLER

THEY ARE RUSHED TO THE EMERGENCY ROOM OFTEN BECAUSE OF A

motor vehicle crash or a fall. Other times, it is a stabbing, a gunshot wound, or another type of injury. According to the American College of Surgeons, some 60 million Americans each year suffer a trauma injury, the third-leading cause of fatalities, which is surpassed only by cancer and heart disease. Among those under 40, it is the most common cause of death.

Over the last five years, Cedars-Sinai has seen an average of 1,300 trauma patients annually for injuries that are often life threatening. Trauma victims who are taken to Cedars-Sinai find a

medical team that is prepared to handle any level or type of injury and utilizes the latest surgical techniques to significantly speed healing. The hospital's trauma surgeons are also committed to exploring new applications of procedures and refining existing ones. Patients who are treated at Cedars-Sinai benefit from surgical techniques originally developed for other purposes, but which doctors at Cedars-Sinai have adapted to trauma cases. "Laparoscopy can be used as both a diagnostic and therapeutic tool in trauma," says Daniel R. Margulies, MD, FACS, director of Trauma Services. "For example, in a blunt abdominal injury, such as that caused by a car crash, laparoscopy can be used to get a good view of the damage and then repair it without making a big incision. It saves the patient time in recovery, creates fewer complications, and results in getting back to work faster."

Recently, surgeons have begun using laparoscopy to treat penetrating traumas, injuries incurred when a sharp object (as a knife, bullet, or shrapnel) penetrates the body. A recent case involved a man with a gunshot wound through his abdomen. "After we used the procedure

to identify the injury, clean out the blood, and repair the intestines, he left the hospital in a few days," Dr. Margulies explains. "With traditional surgery, he would have been in the hospital at least a week, with six weeks to heal, and at risk for blood clots and pneumonia. When laparoscopy is used as a tool for diagnosis, in some cases we find that no surgery is needed because there is no significant injury, so a patient may be released the same day."

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Certain potentially serious complications can arise when trauma patients are connected to a ventilator through an endotracheal tube. They include trouble with swallowing, damage to the vocal cords, and secretions that block airflow in the windpipe. To remedy that, Dr. Margulies introduced a now widely used procedure to the Trauma Program when he arrived at Cedars-Sinai in 1991. The procedure, called percutaneous tracheostomy, is not performed in the operating room, but rather while the patient is in the intensive care unit. It creates an external airway for the patient. A surgeon makes a half-inch incision in the neck, inserts a needle

into the trachea, or windpipe, passes a wire, and dilates the area with a tapered tube to make room for a breathing tube that connects to a ventilator. Simultaneously, another physician views the procedure through a bronchoscope inserted in the throat to assure correct placement of the breathing tube.

"It is quick and easy because patients do not have to be moved to an operating room, and it is better for the patient overall," says Dr. Margulies. "A shorter tube is put in place so it is easier to breathe and swallow, and fewer secretions get into the airway.

We have observed a lower incidence of pneumonia when using percutaneous tracheostomy, and it helps patients to get off the ventilator sooner."

Of the 13 trauma centers in Los Angeles County, Cedars-Sinai is one of only four designated by the County as a Level I trauma center—signifying that it is equipped to take the most severe injuries. In addition, the hospital is accredited by the American College of Surgeons, a widely coveted seal of approval.

"It is the highest honor you can get," says Heidi Hotz, RN, manager of the Trauma Program. "The College conducts a rigorous, in-depth survey that looks

Dr. Daniel Margulies leads rounds with (photo at left) Dr. Rodrigo Alban and fourth year medical student Ann Falor; (below) Dr. Franklin Westhout; (bottom left) Trauma Program manager Heidi Hotz, RN, and Dr. Avi Nisim.



at outcomes, quality of care, systems operations—everything related to trauma care from pre-hospitalization through rehabilitative care. Our standing reflects the skill and dedication of our physicians and nurses."

Cedars-Sinai is also the only private, nonuniversity-based hospital in the county with a Level I trauma center. For Dr. Margulies, this "really demonstrates the program's value, and the Medical Center's leadership in community care." ♥♥