

INJURY FACTS:

- ◆ Injury is the leading cause of death of Americans in the first four decades of life.
- ◆ Violent and unintentional injuries cause more than 170,000 deaths each year and cost an estimated \$406 billion annually.
- ◆ Treatment of injuries and their long term effects account for 12% of medical spending.
- ◆ Hospital emergency departments treat an average of 55 people for injuries every minute.*

*Injuries in America: Defining risks.. increasing safety, CDC website.
http://www.cdc.gov/ncipc/anniversary/injuryoverview/01_injuryresearch.htm; and
<http://www.cdc.gov/nchs.fastats/injury.htm>

“The financial and economic impact of injuries in the United States is serious. However, by expanding our science-based injury prevention programs, we can drastically reduce these costs and even more importantly help people live long and healthier lives.”

*CDC Director
Julie Gerberding*

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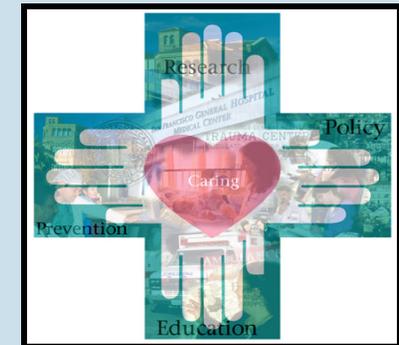
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San Francisco Injury Center for Research and Prevention



In its 20th year of existence, the San Francisco Injury Center is a center without walls - bringing together multidisciplinary faculty investigators from the UCSF campus and beyond. The resulting collaborative efforts in laboratory research, clinical trials and injury prevention research has improved outcomes for victims of trauma in our region and have helped to influence the field of injury control on a global basis.

SFIC is one of thirteen injury control centers of excellence funded by the National Center for Injury Prevention and Control and is located at the San Francisco General Hospital campus of UCSF.

Acute Care Research

SFIC researchers have conducted laboratory and clinical studies directed toward improving outcomes for acutely injured patients. These studies have ranged from investigations of the molecular basis of traumatic brain injury to interventions designed to reduce posttraumatic stress disorder symptoms in children who have been injured. Current research studies are listed below.

Resuscitation

The use of tissue oxygen monitoring in critically injured patients

Using techniques previously perfected in our laboratory, researchers are investigating the monitoring of tissue oxygen and microcirculatory flow of the deltoid muscle as an endpoint of resuscitation in an attempt to reduce both morbidity and mortality following injury.



Inferior Vena Cava Diameter and near-infrared spectroscopy predict resuscitation status and outcome

A second study is investigating the use of noninvasive measures of intravascular volume status and peripheral oxygen saturation as a guide in the early resuscitation of critically injured patients.

Hemostatis after Injury

Clinical investigators at the SFIC are participating in multi-center studies aimed at identifying the best combination of blood and blood products, as well as the use of pro-coagulants in order to optimize outcomes in injured patients who are bleeding. Another study used a newly developed drug, Fondaparinux, to prevent thromboembolic complications following major trauma.

Injury Prevention Research

The Cost of Pedestrian Injury

This study aims to describe the injured pedestrian population in San Francisco, their injuries and the associated hospital costs for treatment at San Francisco General Hospital (SFGH). Data from patient medical records, the trauma registry and the hospital billing information for all patients who have been involved in a pedestrian incident from 2000-2007 and treated at SFGH will be included in this study.

Mental Illness and Unintentional Injury

This research project seeks to identify those patients with psychiatric disorders hospitalized with unintentional injuries and examine their risk for recidivism. Trained interviewers screen identified patients and develop a baseline to evaluate the risk for injury. It is hoped that the outcome will result in prevention programs specially tailored to people with psychiatric disorders.



Wraparound Project

In order to reduce recidivism rates for youth involved in violence, Dr. Dicker and her staff have developed the Wraparound Project which uses culturally competent case management to target those 12-30 year old patients who are admitted to the trauma center for violent injury. Youth are mentored and steered to risk reduction resources with community partners. Since its inception in 2006, this project has incorporated rigorous evaluation techniques.

Education and Training

San Francisco Injury Center provides education for members of the community and community-based organizations, as well as the next generation of professionals and researchers in the fields of trauma care and injury control through mentoring surgical residents, training through simulated-enhanced curriculum, lecturing at national and international venues and training and educational research.

Simulation

SFIC personnel designed a trauma curriculum that included a human patient simulator and utilized the curriculum to train 44 surgical residents. Continuing research in this area is aimed at validating the curriculum and the tools used to measure physicians performances in real-life trauma resuscitations.



Pedestrian Video Game

Dr. Knudson and collaborators previously produced an interactive video game called Ace's Adventures for elementary school age children that incorporates critical safety lessons into game play in a challenging and engaging way. It is now being evaluated in the Los Angeles school district by a team from Childrens Hospital, Los Angeles.

Ultrasound Education

Staff provided a formal ultrasound training course for medical professionals in a Ugandan trauma center and are evaluating the feasibility of implementing FAST into their standard of care.