

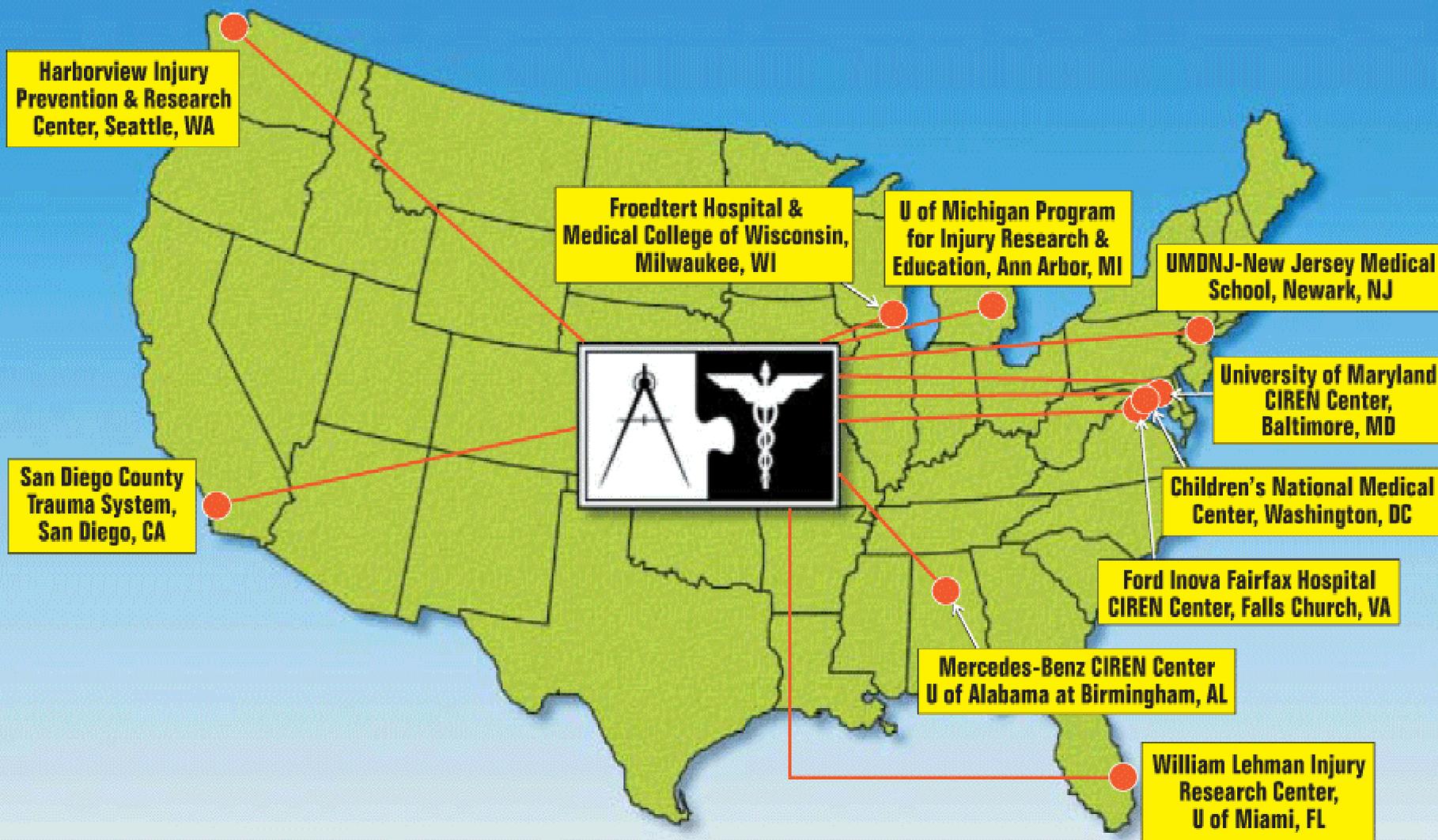
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# Crash Injury Research and Engineering Network (CIREN) CIREN Public Meeting

Seattle, Washington  
August 23, 2002

Catherine McCullough  
CIREN Program Analyst

# CIREN Network

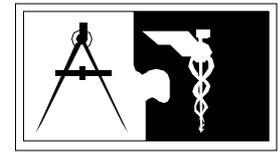




# CIREN Overview/ History

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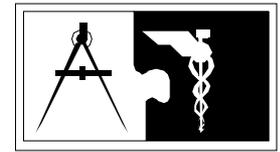
- **Early Hospital Studies – 1980s**
- **GM Funding - 1995**
- **Birth of CIREN - 1996**
- **Electronic Database August 1999**
- **Seven Federally Funded Centers**
- **Two Privately Funded Centers**
- **One Self-Funded Center**



# CIREN Mission

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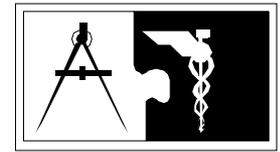
Improve the prevention, treatment and rehabilitation of motor vehicle crash injuries to reduce deaths, disabilities, and human and economic costs.



# CIREN Program Objectives

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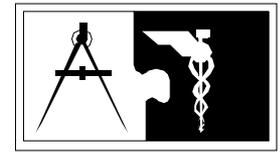
- Learn more about mechanisms of injury
- Improve triage, transport and treatment of critically injured
- Provide safety and design engineers with real-life crash information



# Research Priorities

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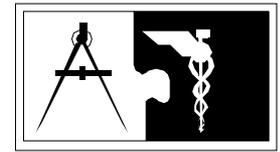
- Late Model Vehicles – Last 6 Years
- Children
- ~~Infant Safety Seat~~
- Air Bag
- All Fire Related
- Rollovers Less Than 2 Quarter Turns



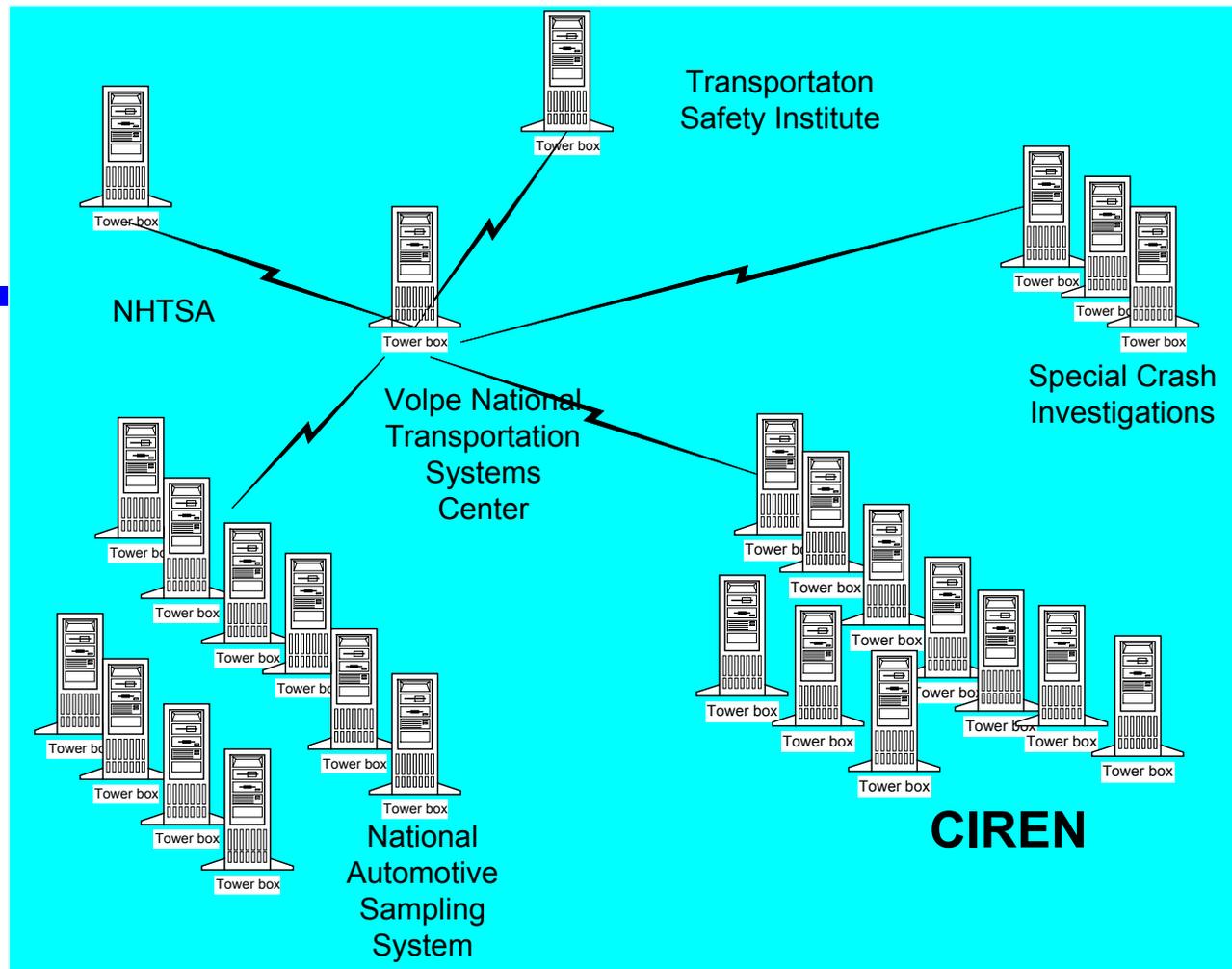
# Data Collection

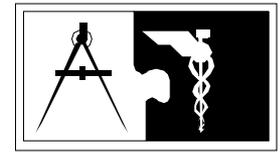
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- **Crash Data**
  - ▶ Vehicle Movements
  - ▶ Environment
- **Medical Data**
  - ▶ Injuries
  - ▶ Medical History
  - ▶ Treatment
  - ▶ Outcome
- **All Data Sanitized**



# CIREN Wide Area Network

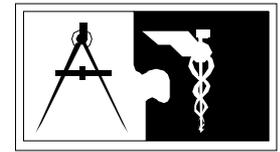




# Dissemination of CIREN Findings

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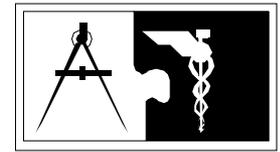
- **Three Annual Conferences – 1997, 1998, 1999**
- **CIREN Public Meetings (2000-2001)**
  - ▶ May 5, 2000 - Lower Extremity Injuries
  - ▶ July 21, 2000 - Side Impact Crashes
  - ▶ November 30, 2000 - Thoracic Injuries
  - ▶ March 16, 2001 - Offset Frontal Collisions
  - ▶ June 21, 2001 - CIREN Outreach Efforts
  - ▶ September 6, 2001 - SUVs
  - ▶ December 6, 2001 – Age Related Injuries (Elderly and Children)



# Dissemination of CIREN Findings

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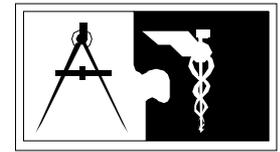
- **CIREN Public Meetings - 2002**
  - ▶ April 25, 2002 - Head and Traumatic Brain Injury
- **Upcoming CIREN Public Meetings –2002**
  - ▶ August 22, 2002 – Center Specialty
  - ▶ December 6, 2002 – Occult Injuries
- **Upcoming CIREN Public Meetings –2003**
  - ▶ April 24, 2003 - Tentative
  - ▶ August – TBD
  - ▶ December - TBD



# Dissemination of CIREN Findings

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- Collaborative Case Reviews
- CIREN Website  
<http://www-nrd.nhtsa.dot.gov/departments/nrd-50/ciren/CIREN.html>
- CIREN Public Workstation
- Papers - Medical & Engineering



# CIREN Home Page



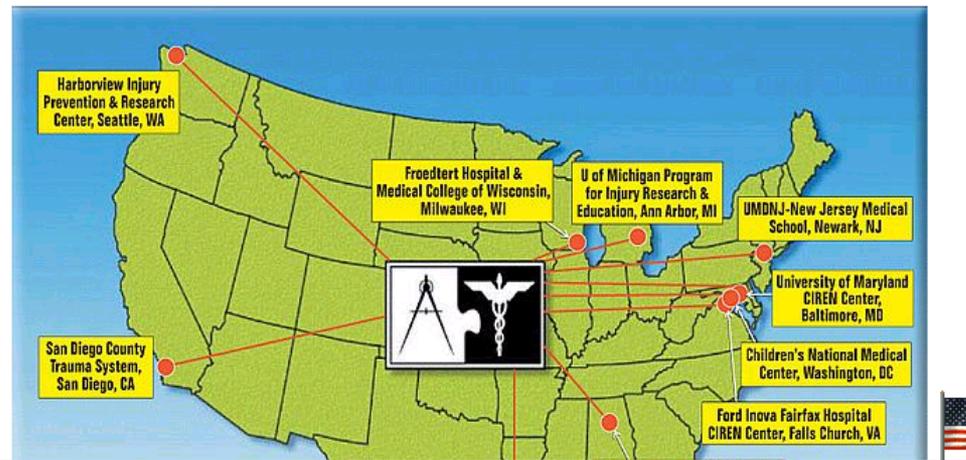
CIREN The Nation's Largest Learning Laboratory



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## Crash Injury Research and Engineering Network

The **C**rash **I**njury **R**esearch and **E**ngineering **N**etwork (**CIREN**) is a multi-center research program involving a collaboration of clinicians and engineers in academia, industry, and government. Together, they are pursuing in-depth studies of crashes, injuries, and treatments to improve processes and outcomes. CIREN's mission is to improve the prevention, treatment, and rehabilitation of motor vehicle crash injuries to reduce deaths, disabilities, and human and economic costs.





# CIREN Home Page

## Third Annual CIREN Conference

October 28, 1999  
San Diego Paradise Point Resort  
San Diego, California

## Second Annual CIREN Conference

September 15, 1998  
University of Michigan Medical Center  
Ann Arbor, Michigan

## First Annual CIREN Conference

October 20, 1997  
University of Michigan Medical Center  
Ann Arbor, Michigan

In lieu of annual CIREN Conferences at this time regular quarterly meetings were instituted in March 2000.

- [2000 Quarterly Presentations](#)
- [2001 Quarterly Presentations](#)
- [2002 Quarterly Presentations](#)

### **UPCOMING EVENT**

The next Quarterly CIREN meeting will be held Thursday August 22, 2002

Harborview Injury Prevention and Research Center  
Research and Training Building Auditorium  
9th and Alder Streets, Seattle, Washington

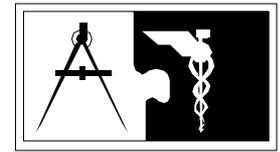
**TOPIC:** Each center will be presenting research on their center's speciality

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If you would like to register on-line for the upcoming meeting, please click here: <http://www.hiprc.org>

### **NEW** CIREN Electronic Cases

The CIREN database consists of multiple discrete fields of data concerning severe motor vehicle crashes, including crash reconstruction and medical injury profiles. Personal and location identifiers and highly sensitive medical information have been removed from the public files to protect patient confidentiality. CIREN cases, extending to 1996, for which coding and quality control have been completed, are available for public viewing. Additional cases are released to the public as they become available.



# CIREN Query Page

**SELECT A SINGLE CASE**

CIREN ID

**SELECT FROM A LIST OF CASES BASED ON CRITERIA BELOW**

**Vehicle**

Make  Start Model Year   
 Model  End Model Year

**Vehicle Damage**

Primary  PDOF   
 Secondary  Delta V   
 (multi select)  
 D Distributed - side or end  
 L Left - front or rear  
 C Center - front or rear

**Occupant**

Age  Sex   
 Height  Weight

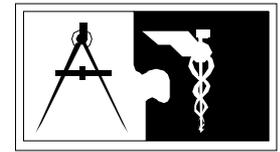
**Injury**

Body Region  AIS/NASS Code   
 ISS  Maximum AIS

**Restraint Use**

Manual Belt  Automatic Belt   
 Air Bag Deployed  Child Seat Used

version 2.00 EE



# Applications of CIREN Data

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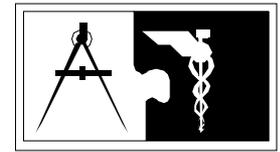
- **Pelvic Fracture Mechanism of Injury in Vehicular Trauma Patients**
- **High Incidence & Morbidity of Rib Fractures in Elderly Motor Vehicle Crash Occupants**
- **Lower Extremity Injuries Among Restrained Vehicle Occupants**



# Applications of CIREN Data

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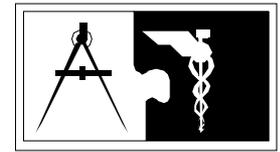
- Child Restraint Use/Misuse
- Head and Traumatic Brain Injuries
- Bladder and Pelvic Injuries
- Occult Injuries
- Outreach to First Responders – EMTs, Firemen, Policemen



# Applications of CIREN Data

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- **Heightened Awareness of Injury Mechanisms Based on Crash Patterns**
- **Faster/Improved Treatment Based on Information Provided by First Responders**
- **Automobile Design Improvements Based on Knowledge Gained at Case Reviews**



# CIREN Contacts

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## CIREN URL

<http://www-nrd.nhtsa.dot.gov/departments/nrd-50/ciren/CIREN.html>

## CIREN Program Office

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[Catherine.McCullough@NHTSA.DOT.GOV](mailto:Catherine.McCullough@NHTSA.DOT.GOV)