Injury Prevention Resource Guide

Why Do We Care About Injury?

Injuries are the **NUMBER ONE** cause of death for people 44 years of age and younger, ahead of cancer and heart disease. They can often lead to **long-term disability**, **trauma**, and **mental health challenges** and have been linked to the development of **chronic disease**.
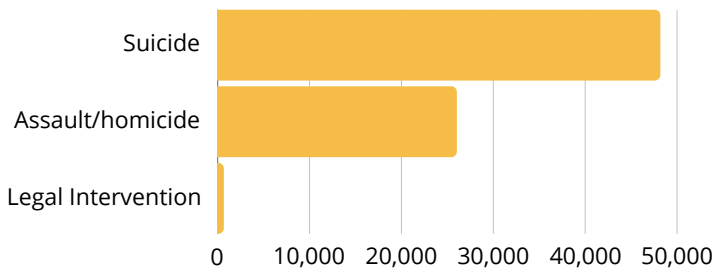
What is an Injury?

Injury is generally defined as **damage to the body caused by an external force**. Traumatic injury refers to injury that can cause death or disability without immediate medical attention.

Injuries can be broken down into two general categories, **intentional** or **unintentional**.

INTENTIONAL:

Injuries resulting from purposeful human action, whether directed at oneself or others.

Top 3 Causes of Fatal Intentional Injury (2021)

UNINTENTIONAL:
Injuries that are not inflicted purposely and that occur without intent of harm.

Top 5 Causes of Fatal Unintentional Injury (2021)

Top 5 Causes of Non-Fatal Unintentional Injury (2021)

* Includes drug overdoses

NOTE: When discussing injury, it is best practice to avoid referring to injuries as "accidents", as it implies that it is just a matter of fate, something that can't be avoided. Research shows that injuries are not only predictable, but also preventable.

Factors That Influence Injury

People don't often sustain an injury due to personal choice or bad luck. Historical and social contexts influence factors - known as **social determinants of health (SDoH)** - that can affect injury risk and outcomes.
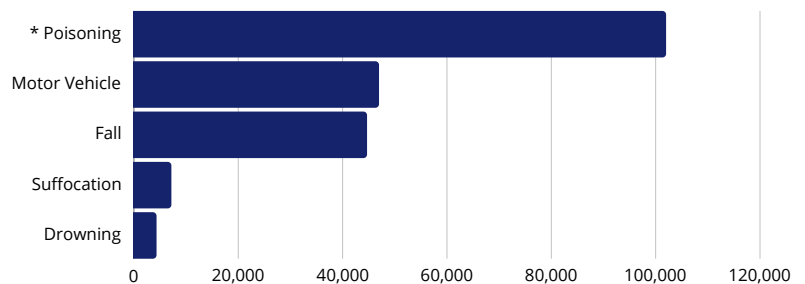
Healthy People 2030 categorizes SDoH in 5 domains:
- Economic stability
- Education Access and Quality
- Health Care Access and Quality
- Neighborhood and Built Environment
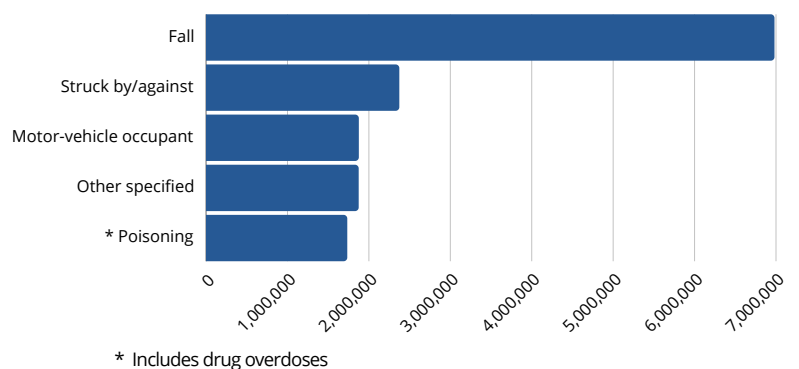- Social and Community Context

Learn more at
BWHSTEPPINGSTRONG.ORG

Brigham and Women's Hospital
Founding Member, Mass General Brigham

The Gillian Reny
STEPPING STRONG
Center for Trauma Innovation

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What is Injury Prevention?

Injuries are both predictable and preventable. The field of injury prevention determines how we can reduce the risk of injury through a variety of strategies. Research findings can help identify when injuries occur and evidence-based recommendations can help prevent these injuries from happening.

Where is Injury Prevention Practiced?

- National level (CDC, Indian Health Services)
- State Health Departments
- Local Health Departments
- Universities/Injury Control Research Centers
- Hospital Trauma Programs, like the Gillian Reny Stepping Strong Center for Trauma Innovation

How Do We Prevent Injury?

Injury prevention involves thinking about **WHEN** we want to prevent injury, as well as **WHO** or **WHAT** we want to focus our intervention on.

WHEN can we prevent injury?

- **Primary (Pre-event)** – How can we intervene before the injury occurs?
- **Secondary (Event)** – How can we make the injury less severe when it occurs?
- **Tertiary (Post-event)** – How can we improve the long-term outcomes from injury?

WHO or WHAT do we want to focus on?

- **Host** – Individual factors related to one's behaviors that can affect their injury risk.
- **Agent** – The factor or force that would cause the injury.
- **Environment** –
  - **Physical** environment looks at changing a physical space.
  - **Social/cultural** environment looks at modifying social norms and contexts.

The **Haddon Matrix** is a conceptual model that looks at the **WHEN** and the **WHO/WHAT** to help develop different kinds of interventions. Below is an example matrix looking at how to prevent injury from drunk driving.

WHO/WHAT

WHEN		HOST	AGENT	PHYSICAL ENVIRONMENT	SOCIAL ENVIRONMENT
	PRIMARY/ PRE-EVENT	Alcohol use while driving	Impairment detection in car	Alcohol access	Designated driver programs
	SECONDARY/ EVENT	Wearing a seatbelt	Airbags	Median Barriers	Vehicle design laws
	TERTIARY/ POST-EVENT	Insurance status	Crash notification system	Emergency services system	Trauma system funding

Want to learn more?

Check out the following resources

Stepping Strong Injury Prevention Lunch and Learn

SafeStates IVP 360   **SAVIR**   **CDC Injury Center**