

What are road traffic injuries?

The rate of road accidents is increasing globally and the resulting deaths, injuries, physical disabilities and psychological distress are creating a tremendous negative economic impact on victims, their families and society in general, especially in low and middle income countries.

Every year, about 1.25 million people are killed in road crashes and 20 to 50 million people are seriously injured worldwide. Road crashes are the leading cause of death among 15 to 29-year-olds. National and international health actors have been paying more and more attention to this reality in the past years and road traffic injuries are now considered a major issue for public health.

The United Nations Agenda for Sustainable Development has set a specific target related to road safety, to “halve the number of global death and injuries from road traffic accidents” by 2020.

The Decade of Action For Road Safety 2011-2020 lays out five pillars of action to try to address this emerging health issue: road safety management, safer roads and mobility, safer vehicles, safer road users, and post-crash response.

Providing rehabilitation services to road traffic victims is one of the core components of pillar 5 (post-crash response).

QUICK FACTS

- Road crashes cause approximately 1.25 million deaths per year.
- More than 90% of those occur in low and middle income-countries.
- Road injuries account for 3.04% of total global DALYs, road crashes causes 20 to 50 million non-fatal injuries per year.
- Road traffic crashes are the leading cause of traumatic spinal cord injury.

Who are the main stakeholders?

Users: all road users especially the most vulnerable road users (pedestrians, motorcyclists, cyclists and public transport passengers), associations of road crash victims | **Service providers** in all relevant sectors including NGOs and road safety actors in the private sector | **Ministries:** Transport, Health, Education, Home affairs/ Interior, Finances | **International professional organisations** | **International bodies and partnerships:** United Nations Road Safety Collaboration, World Health Organization (WHO), the Global Alliance of NGO for Road Safety, FIA Foundation, development banks.

Common impairments and activity limitations from road traffic injuries?

People who survive road crashes may be likely to experience significant trauma resulting in a range of potential health conditions leading to short term or permanent disabilities.

- **Musculo-skeletal injuries** such as fractures, whiplash and soft tissue injuries can be common, causing short- and long-term pain, stiffness and immobility, musculo-skeletal deformities and limb loss.
- **Spinal Cord Injuries (SCI)**, where the spinal cord, which supplies the nerve connections between the brain and body, become damaged or severed. Depending on the severity of the injury and its location on the spinal cord, it can cause

partial or complete loss of sensory function or motor control of arms, legs and/or body (tetraplegia, paraplegia). The most severe spinal cord injury affects the systems that regulate bowel or bladder control, breathing, heart rate and blood pressure.

- **Traumatic brain injury**, where the swelling and pressure can cause brain tissue damage. Depending on the size and locations of damage, this can cause significant physical or cognitive and behavioral impairments.
- **Psychological distress and depression** due to the accident and the consequences at individual and family level.

★ What can rehabilitation do?

Rehabilitation is fully integrated in the fifth pillar of the Decade of Action For Road Safety 2011-2020, but can also contribute to the implementation of others key components of the Decade. It can play a decisive role through data collection systems, contributing to define strategies for road safety management (pillar 1). It also contributes to safer roads and mobility (pillar 2) by taking into account specific accessibility and mobility needs (provision of assistive devices and mobility aids).

Different examples of rehabilitation across the care cycle

Prevention

- Postural education for people in driving occupations to reduce incidence of back pain.
- Secondary prevention of complications from road crashes for people with long terms disabilities (urinary infection, pressure sore, joint limitation...).

Diagnosis

- Initial assessment of body functions after road crashes.
- Multi-disciplinary rehabilitation to assess the needs and facilitate optimum recovery and activity for complex orthopaedic and neurological disorders such as multiple fractures, traumatic brain injury or spinal cord injury.

Care and support

- Ongoing support for persons with Spinal cord injury, musculoskeletal injuries, traumatic brain injuries and psychological distress, including: psychological support (by professionals and peers) and participation in user's group within the rehabilitation center (for the victim and his/her family); education of the care giver and user; home adaptation/work place adaptation; community follow up, including vocational assessment, planning and support. Many, if not all, of these inputs are of lengthy duration requiring rehabilitative input and support over extended time periods.
- Much of what is gained in early and pre-discharge rehabilitation can be lost if there are no consistent services in place in the community.

Data collection

- Contribution to data collection on the numbers and type of impairments; on the needs of assistive and mobility devices; on long term impairment and consequences on level of mobility, functionality and autonomy.
- All the collected data can also be used to define better rehabilitation and primary prevention strategies.

Treatment

- Early post injury rehabilitation to ensure maximum functional gain and recovery. Appropriate therapy intervention by multidisciplinary team to enable recovery of movement, communication, cognition and function as well as promoting autonomy and management of daily life activities. This includes physical therapy, occupational therapy, and speech therapy; provision of orthotics or prosthetics and wheeled mobility devices.

🔍 Case study: brain injury in Laos



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Khammon Xaysavanh, 34 years old, was severely injured and lost her memory in an accident with a drunk driver in 2008. *“As I made my way home, I was hit by a drunk driver who was speeding and driving recklessly. I was very lucky that the crash happened near a hospital and an emergency team soon arrived and administered first aid. I was also wearing a good quality helmet that protected me from the intensity of the impact as my head hit the ground. If I had not been wearing a good quality helmet and if the emergency response had not arrived as quickly as it did, I would not be alive today to tell you my story.”*

For three days, she was in a coma in an Intensive Care Unit (ICU). When she finally woke up, she had speech disorders, memory loss, and was unable to move the right side of her body, as a result of the traumatic brain injury she sustained.

After one month at the hospital, she was moved to the Center for Medical Rehabilitation. Thanks to the rehabilitation professionals, she slowly began to recover the use of the right side of her body. *“I was able to return to work, but the crash had wiped away my memories and my professional skills. Life had completely changed for me, my responsibilities and my job had changed, my personal situation changed.”*

🏛️ Global policy and guidance for road traffic injuries and rehabilitation

United Nations General Assembly (2016), Resolution on Improving Global Road Safety | United Nations Sustainable Development Agenda SDG 3 (2015) – target 3.6: Ensure healthy lives and promote wellbeing for all at all ages | Global Plan for the Decade of Action for Road Safety 2011-2020 | The United Nations General Assembly (2004), Resolution A/RES58/289 on “Improving global road safe”.