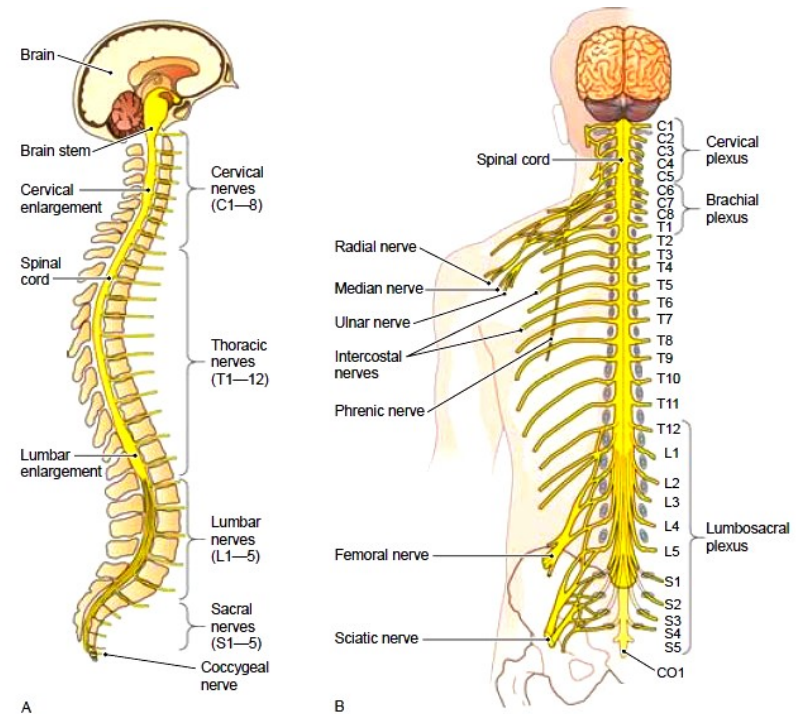


The impact of spinal cord injuries in underserved communities and what is needed to improve care.

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Spinal Cord Rehabilitation Unit

Spinal Cord Injury (SCI)

- Including injury in:
 - spinal cord
 - conus medularis
 - cauda equina
- Excluding:
 - plexus lesions
 - injury to peripheral nerves



Terms of action

- Prevention
- Acute interventions
- **Rehabilitation!!!!!!!!!!!!!!!!!!!!**
- Equalization of opportunities

Causes of spinal cord injury

- Trauma
- Non trauma

Traumatic SCI

- Road traffic accidents
 - Falls
 - Violence
 - Sports
-
- Men 80%: Women 20%

Thesis for doctoral degree (Ph.D.)
2016

Epidemiology, outcomes and experiences
of living with traumatic spinal cord injury
in Botswana



Inka Löfvenmark



Karolinska
Institutet

Nontraumatic SCI

- Infection (TB, HIV)
- Vascular (ischemia or hemorrhage)
- Inflammation, autoimmune/demyelinating
- Cord compression (eg. stenosis, tumor, epidural abscess, disk herniation)
- Vitamin B12 deficiency

Consequences of SCI

Below the level of injury:

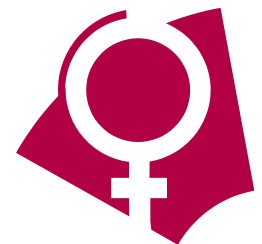
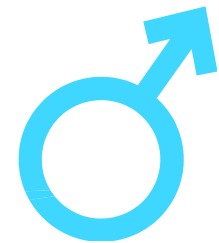
- Paralysis: loss of movement/sensation
- Bladder and bowel dysfunction
- Sexual dysfunction
- Autonomic dysfunction
- Respiratory dysfunction – tetraplegia

Consequences of SCI

Sexual dysfunction

- Impaired erection
- Impaired fertility
 - ejaculatory dysfunction
 - poor sperm quality

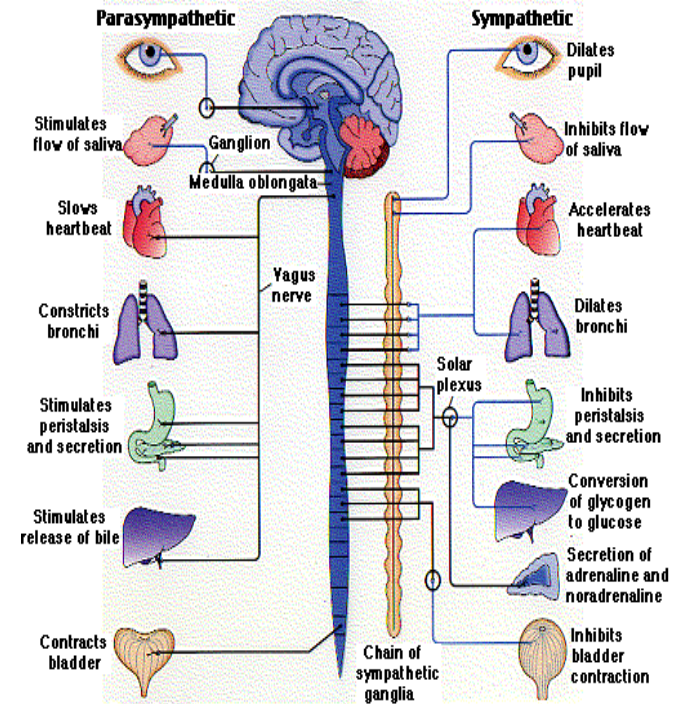
- Impaired lubrication
- Remain fertile and can have children



Consequences of SCI

Autonomic dysfunction

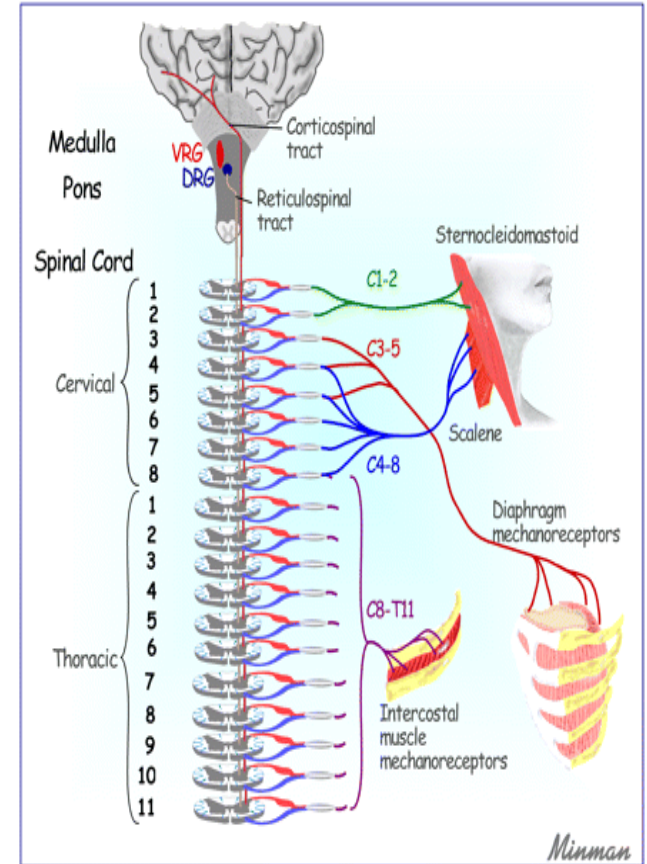
- orthostatic hypotension
- loss of bladder/bowel control
- loss of thermoregulation
- disturbance in perspiration (sweating)



Consequences of SCI

Respiratory dysfunction

- The higher the level of injury, the higher the risk!
- Diaphragm innervated by Phrenic nerve at C3-C5
- Poor cough ability

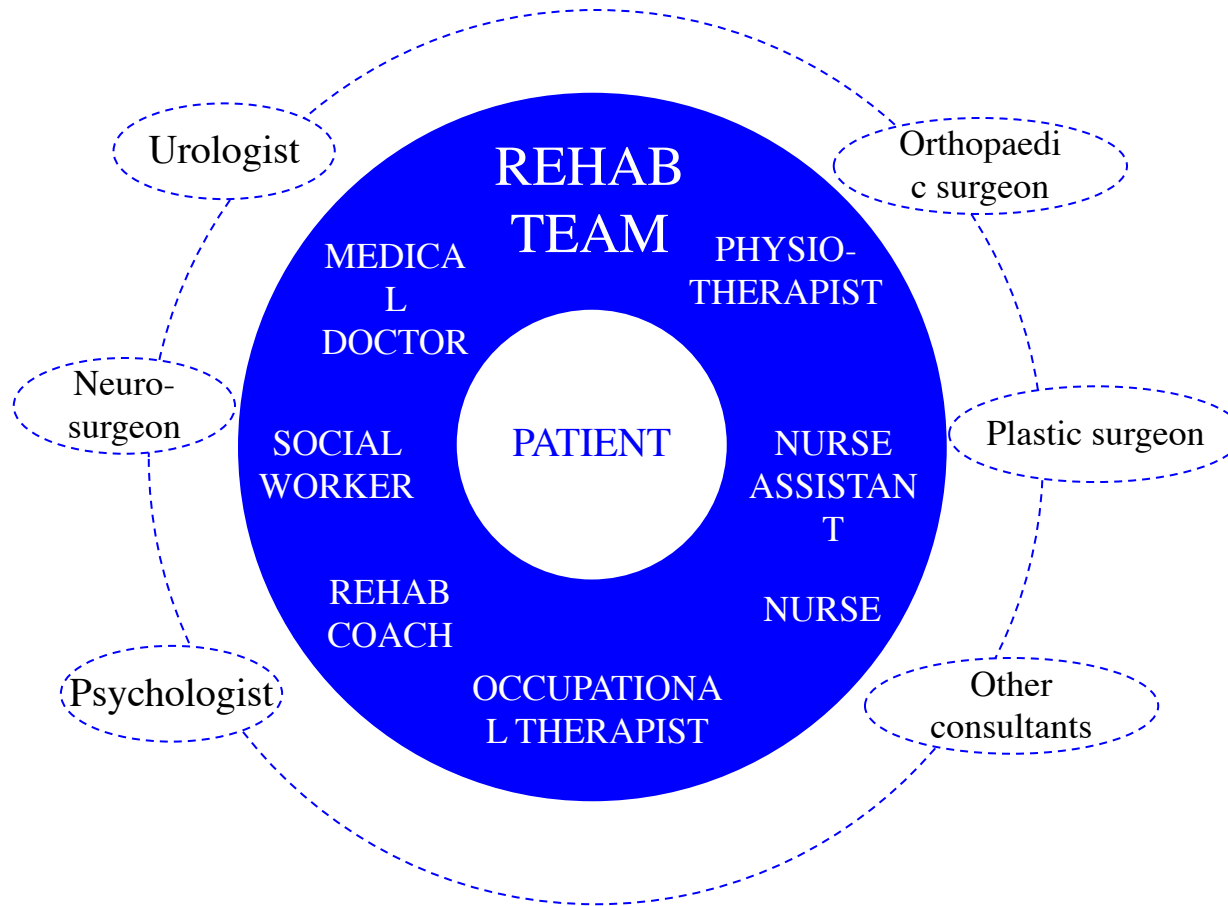


Major cause of death in the acute phase!

Possible complications

- Thromboembolism
- Pressure wounds
- Pain
- Infections
- Gastrointestinal – peptic ulcer
- Spasticity
- Contracture
- Heterotopic ossification
- Autonomic Dysreflexia

Patient centred multi-disciplinary team-work



Goals for SCI Care and Rehab

- Maintain optimal level of wellness
- Maintain optimal functioning
- Minimal or no complications of immobility
- Learn new skills, self care
- Return to home
- Integrate back into community

What determines the outcome?

- Physical/Medical
 - Level & completeness of injury
 - Age
 - Pre-morbid function
 - Co-morbidities
- Psychosocial
 - Personality
 - Depression
 - Motivation
 - Family/ friend support
- Environment



Focus areas
MEDICAL DOCTOR

- Patient and family information
- Responsible for medical health conditions
- Prevention of secondary complications

Focus areas NURSING

Bladder management

- Indwelling catheter immediately after injury
- Individual bladder regime CIC



Bowel management

- Individually adapted bowel routine for every patient.

Prevent pressure ulcers!

- Pressure relief training
- Individual turning schedule for every patient

Practice ADL skills

Focus areas
PHYSIOTHERAPY

- Respiratory training
- Mobilization
- Strengthening
- Transfer training
- Balance training
- Prescription of technical aids



Focus areas OCCUPATIONAL THERAPY

- Activities of Daily Living (ADL)
- Hand function
- Splinting
- Prescription of technical aids
- Home and work place assessments
- Caregiver training



Focus areas REHAB COACHES

- Coping with SCI
- Transfer techniques
- Wheelchair skills and maintenance
- Dressing



- a role model for how to live an active and positive life

“Highest possible level of independence for an active, healthy and meaningful life”!

Requires a true cooperation between staff and patient

Rehab team

- Comprehensive pathway
- Dedicated and competent rehab team
- Relevant technical aids and consumables
- Follow up, - life long care

The patient

- Drive to be rehabilitated
- Drive to return to social life
- Drive and possibility to return to work

The impact of spinal cord injuries in underserved communities and **what is needed to improve care.**

- Acute interventions
- Centralized care
- Stable and competent team
- Equal benefits for SCI patients
- Vocational rehab

Introduction to Active Rehabilitation Program December 2017

40 years of community peer-based programs
for persons with Spinal Cord Injury in over 20
countries:

