

# Injuries From Falls At The Workplace

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# Workplace safety breaches double to more than 9,000 in first six months of 2022: MOM



**Chew Hui Min**

@ChewHuiMinCNA

05 Jul 2022 10:21AM

(Updated: 05 Jul 2022 10:25AM)



A migrant worker waits to cross a street in Singapore. (File Photo: CNA/Calvin Oh)

**SINGAPORE:** There were more than 9,000 workplace safety breaches that the Ministry of Manpower (MOM) took enforcement action against in the first six

**Related Topics**



# Engineer dies after falling 30m at CapitaSpring building



09 Apr 2022 11:20AM

(Updated: 09 Apr 2022 03:49PM)



A view of CapitaSpring in Singapore's Raffles Place central business district. (Photo: CapitaLand)



# Workplace deaths tally for 2022 rises to 24 after man falls 9.5m through skylight



28 May 2022 09:26AM

(Updated: 30 May 2022 09:25AM)



Migrant workers working at a construction site in Singapore on Sep 14, 2021. (Photo: AFP/Roslan Rahman)



# Man dies after falling 20m from condominium roof in West Coast, third workplace death in about a week



Lakeisha Leo

31 May 2022 10:15AM

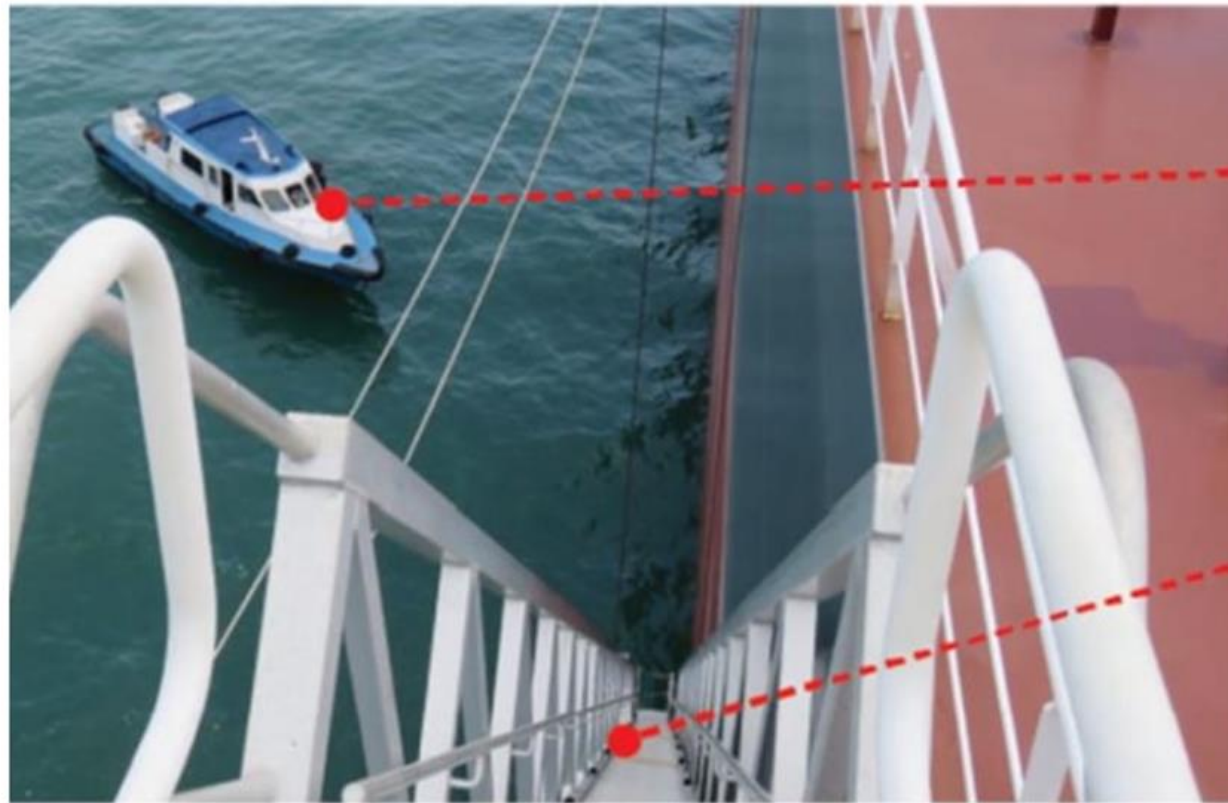
(Updated: 31 May 2022 10:54AM)



A screengrab from Google Street View showing Westcove Condominium. (Image: Google Maps)

# Worker dies after falling into sea while boarding service boat

The accident was the 28th workplace fatality in 2022.



Service  
boat

Vessel's  
gangway



**Chew Hui Min**

@ChewHuiMinCNA

04 Jul 2022 05:59PM

(Updated: 04 Jul 2022 05:59PM)



A reenactment of the accident scene where a worker fell into the sea while crossing a gangway. (Source: WSH Council)



## Singapore's WSH ranking among OECD\* countries



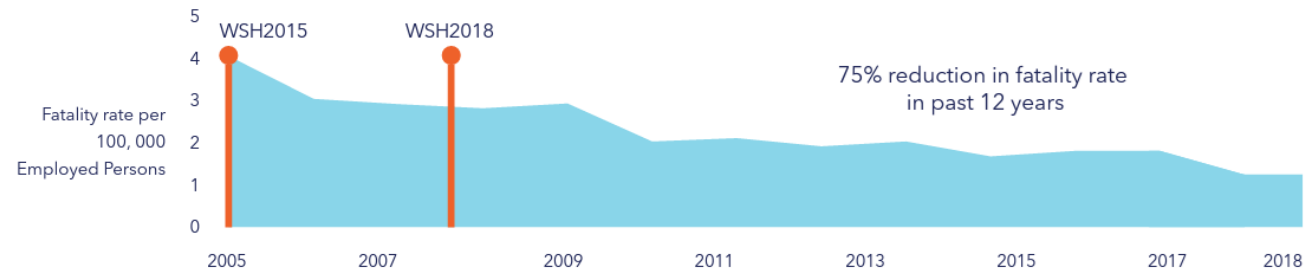
Singapore has made significant progress in our WSH outcomes.

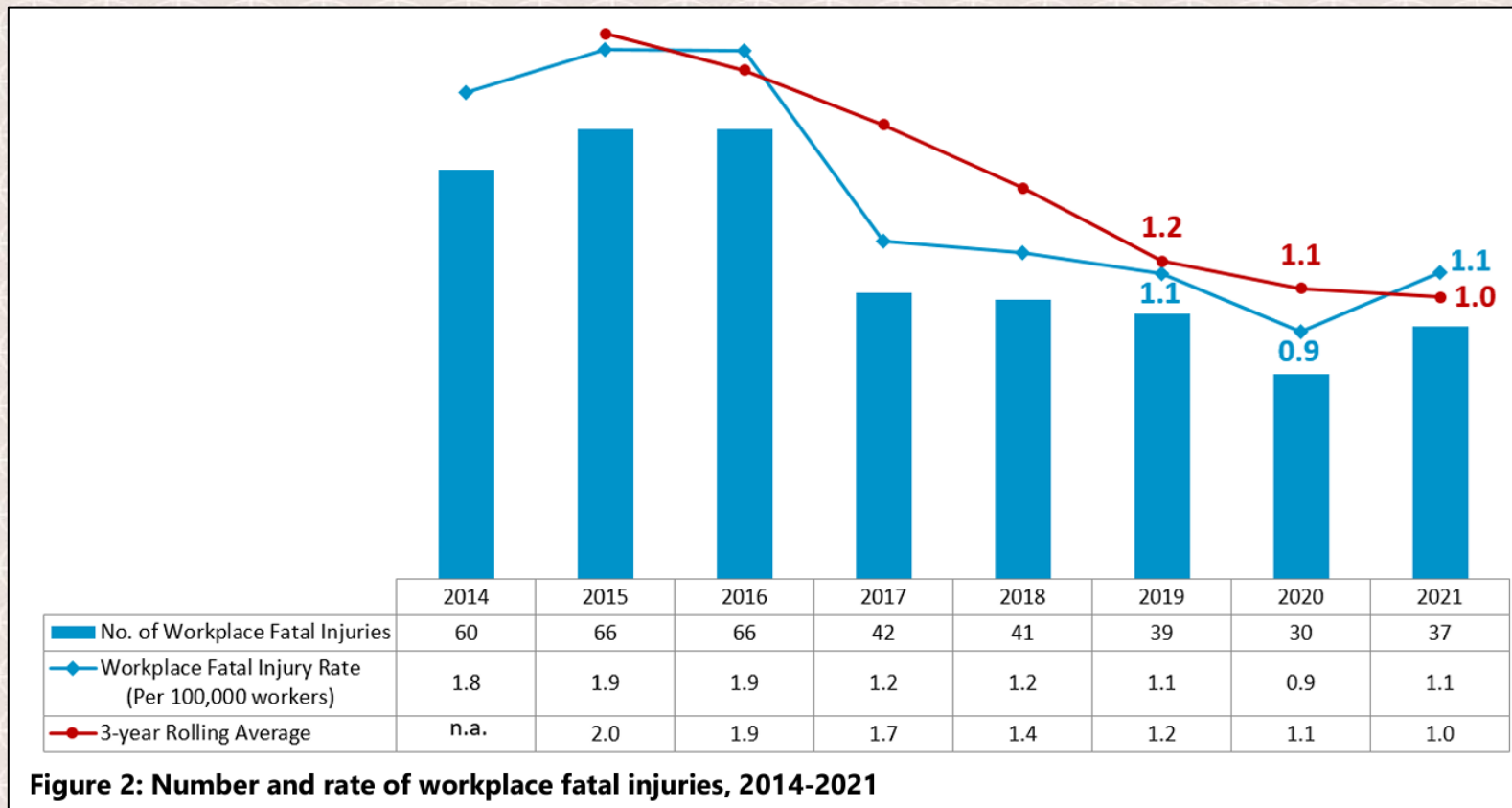
Our workplace fatal injury rate declined by more than 75% over the past 14 years: from 4.9 per 100,000 workers in 2004 to 1.2 per 100,000 workers in 2018 – the lowest level recorded in history.

This was the result of concerted tripartite efforts, guided by the WSH 2015 and WSH 2018 national WSH strategies.

We aim to do better. WSH 2028 will guide our efforts in the next decade.

\*Organisation for Economic Co-operation and Development





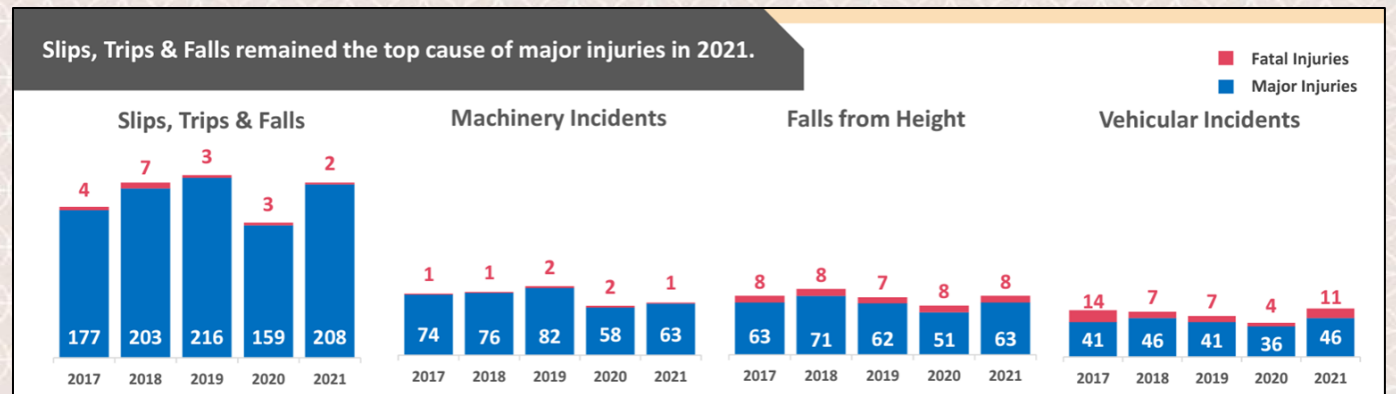
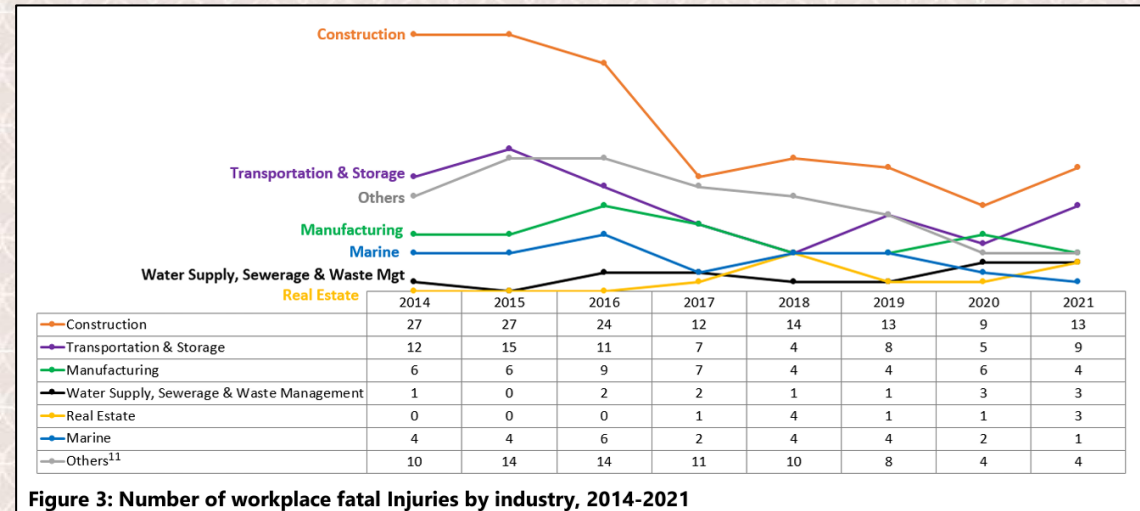
**“to reduce Singapore’s workplace fatal injury rate by 30% on a sustained basis: from a 3-year average of 1.4 per 100,000 workers in 2018 to below 1.0 per 100,000 workers within the next 10 years” – PM in 2017**



# Hard Statistical Truths

In 2021

- Major injuries
  - 18.5/100,000 (610)
- Minor injuries
  - 653/100,000 (21,539)
- MC  $\geq$  4 days
  - 368/100,000 (9420)
- Major causes
  - Slips, trips, falls – 34% (208)
  - Fall from height – 10%
  - Machinery – 10%





# The Cost of Workplace Injuries

- 3 categories
  - Direct healthcare
  - Indirect productivity
  - HR QAL related
- EU5 - % of GPD

Research article | [Open Access](#) | [Published: 06 January 2021](#)

## Economic burden of work injuries and diseases: a framework and application in five European Union countries

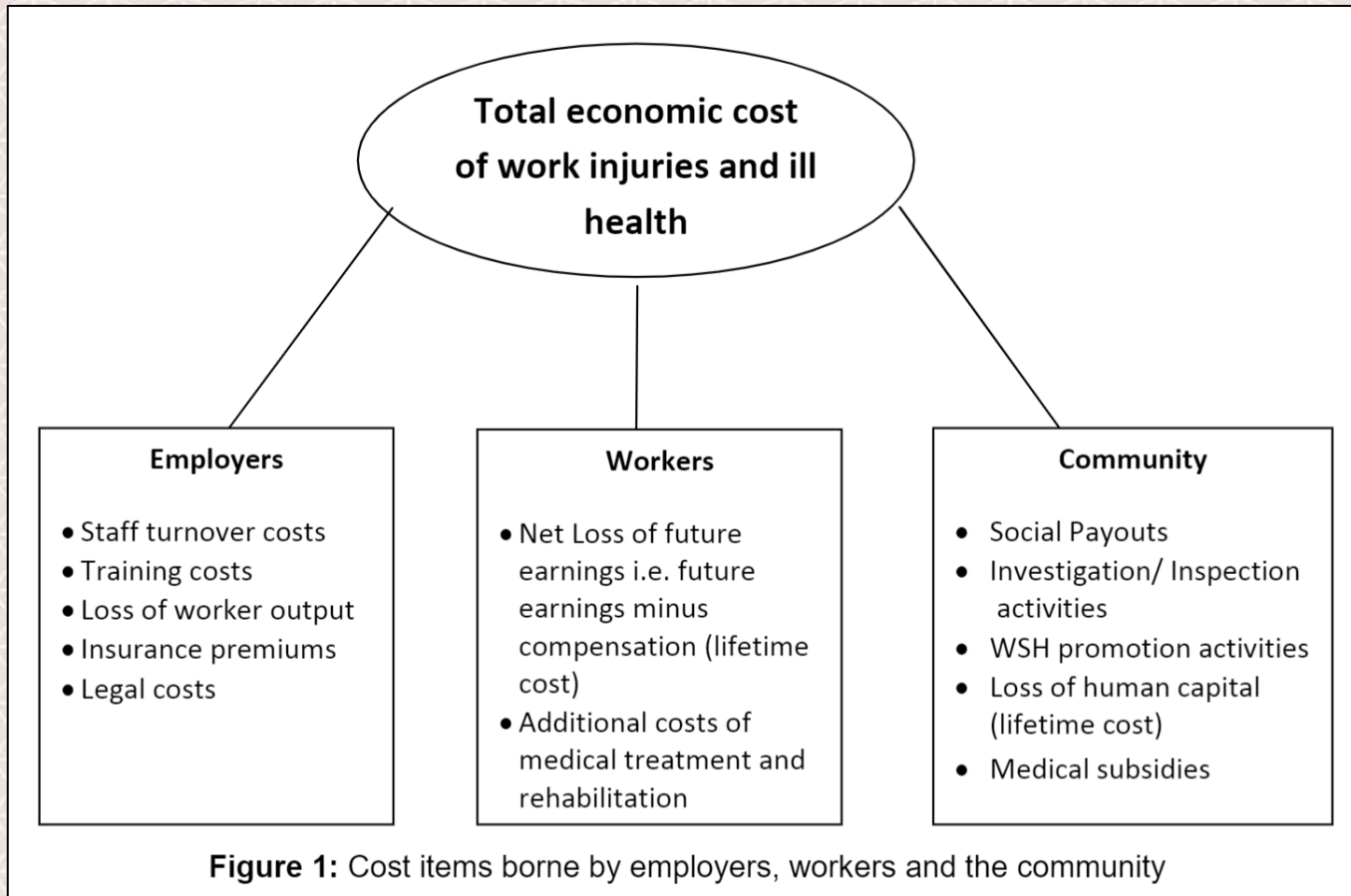
[Emile Tompa](#) , [Amirabbas Mofidi](#), [Swenneke van den Heuvel](#), [Thijmen van Bree](#), [Frithjof Michaelsen](#), [Young Jung](#), [Lukas Porsch](#) & [Martijn van Emmerik](#)

[BMC Public Health](#) **21**, Article number: 49 (2021) | [Cite this article](#)

Costs	Cases	Direct costs	Indirect costs	Intangible costs	Total costs	Percent of GDP	Per case costs	Per employed person costs
Finland	131,867	M€484 (8%)	M€4362 (72%)	M€1196 (20%)	M€6042	2.9%	€45,816	€2479
Germany	2,262,031	M€10,914 (10%)	M€70,658 (66%)	M€25,557 (24%)	M€107,129	3.5%	€47,360	€2664
The Netherlands	323,544	M€2137 (9%)	M€16,468 (69%)	M€5147 (22%)	M€23,751	3.5%	€73,410	€2855
Italy	1,907,504	M€8491 (8%)	M€58,961 (56%)	M€37,392 (36%)	M€104,844	6.3%	€54,964	€4667
Poland	1,156,394	M€1882 (4%)	M€19,588 (45%)	M€22,311 (51%)	M€43,781	10.2%	€37,860	€2722



# The Cost of Workplace Injuries



“The total cost of work-related injuries and ill health to workers, their employers and the community for Singapore is estimated to be **S\$10.45 billion**, equivalent to **3.2% of the nation’s GDP** for 2011.”



# The Cost of Workplace Injuries

## Work Injury Costs - 2020

### COST

- 
-  total in 2020 ---- **\$163.9 billion**
  -  per worker ----- **\$1,100**
  -  per death ----- **\$1,310,000**
  -  per medically consulted injury ----- **\$44,000**

The true cost to the nation, employers, and individuals of work-related deaths and injuries is much greater than the cost of workers' compensation insurance alone. The figures above show National Safety Council estimates of the total economic costs of work-related deaths and injuries.

## Time Lost Due to Work-Related Injuries - 2020

### DAYS LOST

- 
-  total in 2020 ----- **99,000,000**
  -  due to injuries in 2020 ----- **65,000,000**
  -  due to injuries in prior years ----- **34,000,000**
  -  in future years from 2020 injuries --- **50,000,000**

Days lost estimates do not include time lost by people with nondisabling injuries or other people directly or indirectly involved in the incidents.



# Why Workers Fall?

## Environmental factors

- Unsafe work environment
  - Poor system
  - Poor access
  - Poor visualization
- Inadequate personal protective devices





# Why Workers Fall?

## Worker factors

- Improper training
- Lack of safety awareness
- Taking shortcuts
- Plain carelessness





# Types of Injuries Sustained

## Minor

- Soft tissue wounds
- Joint sprains
- Ligament, meniscus, cartilage injuries
- Joint dislocations
- Back injuries
- Minor fractures

## Major

- Limb fractures
- Head injuries
- Pelvic fractures
- Spine fractures
- Death





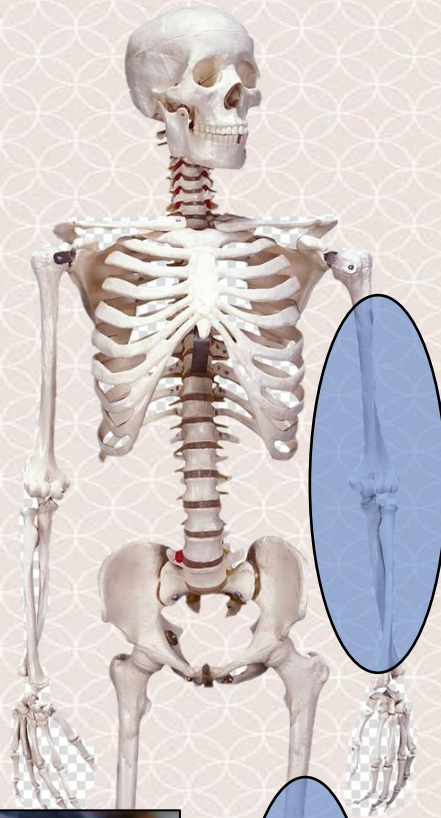
**Mature Content  
Warning  
Gore Ahead**



# Minor Injuries

## Soft tissue wounds

- Usually on limbs
- Bruises
- Abrasions
- Lacerations



Tan Tock See  
HOSPITAL  
National Healthcare Group

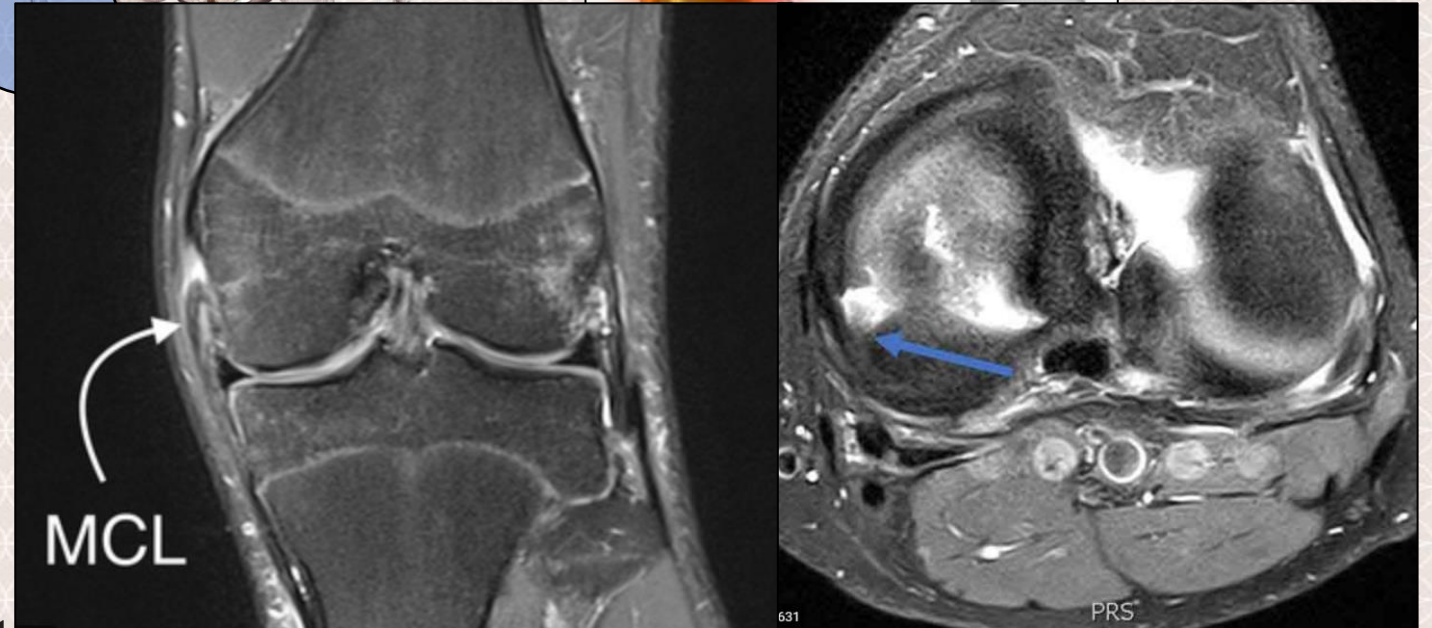
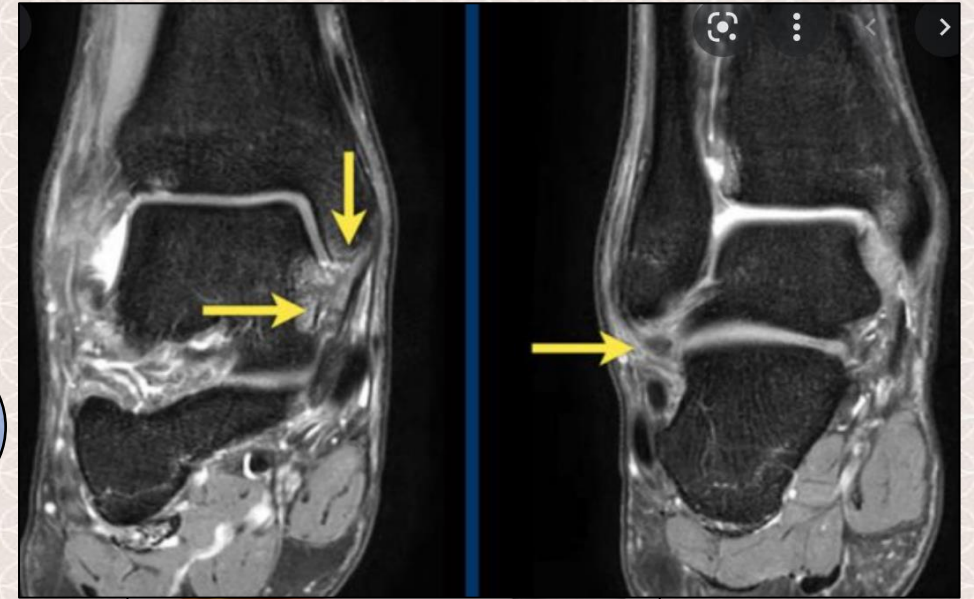
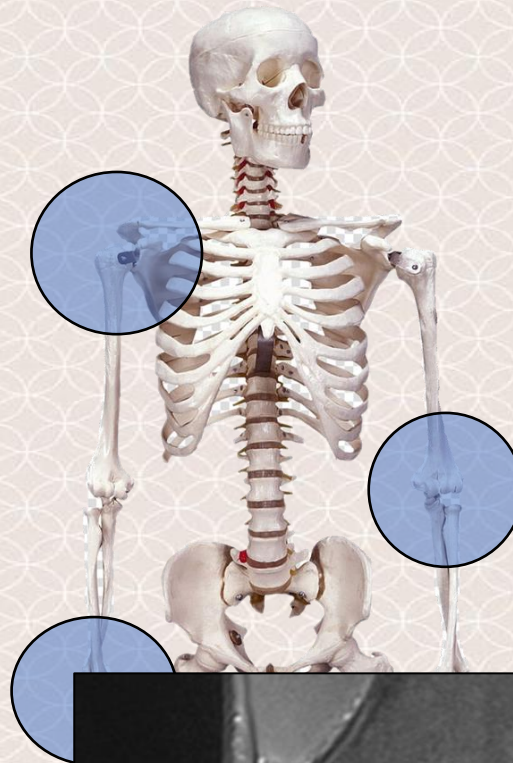
National Healthcare Group  
Adding years of healthy life



# Minor Injuries

## Joint Sprains

- Wrist
- Elbow
- Shoulder
- Knee
- Ankle
- Foot

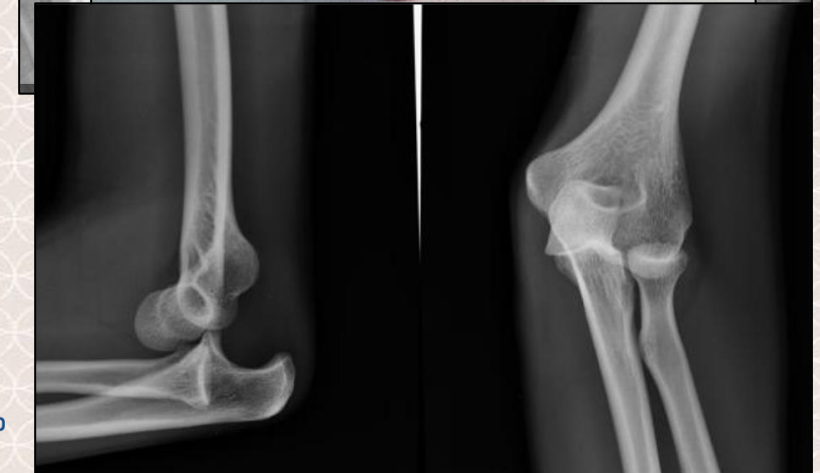




# Minor Injuries

## Joint dislocations

- Shoulder
- Elbow





# Minor Injuries

## Joint dislocations

- Shoulder
- Elbow
- Ankle
- Wrist & Digits





# Minor Injuries

## Minor Fractures

- Chip / avulsion fractures
- Metatarsal & Toe fractures
- Finger fractures

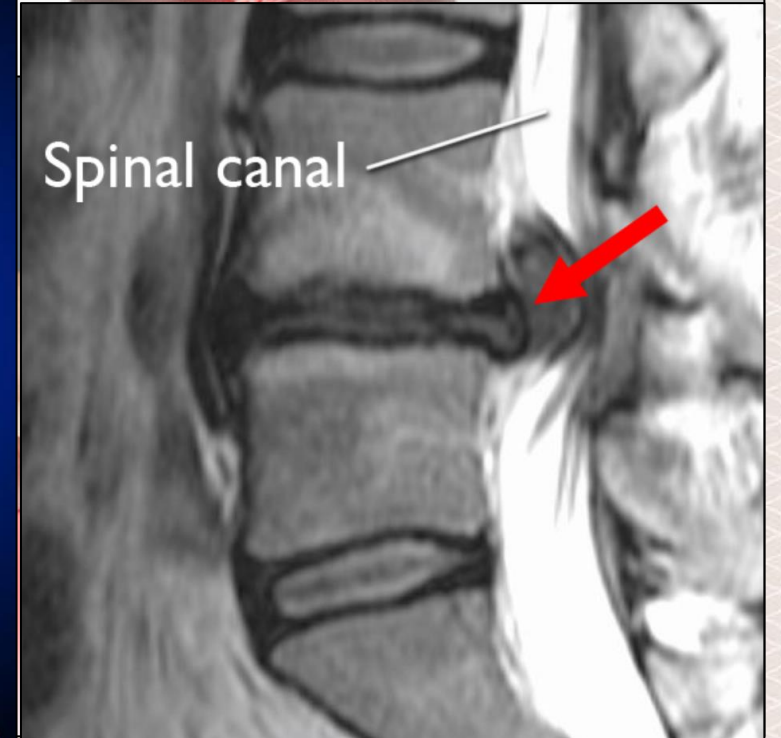
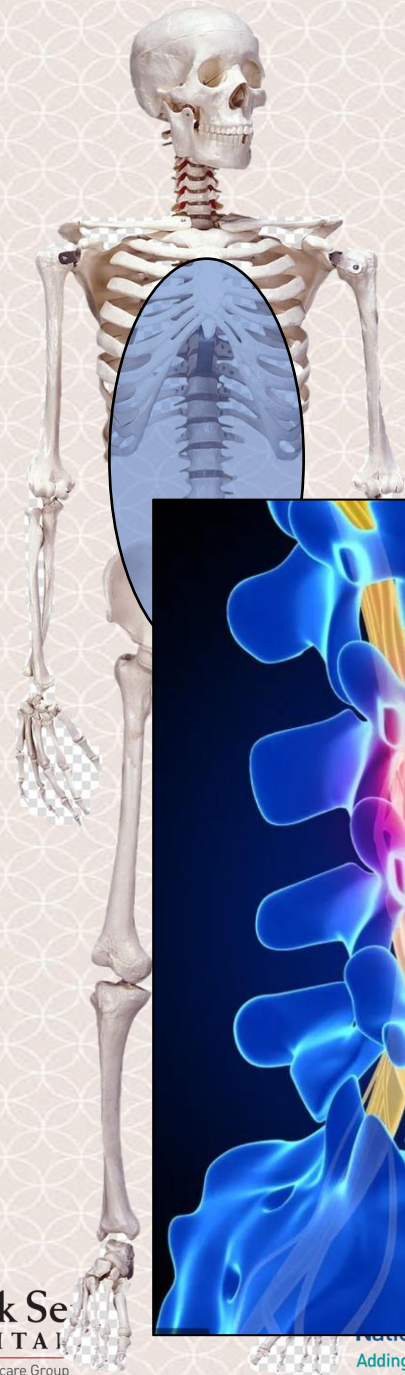




# Minor Injuries

## Back injuries

- Back strain
- Neck strain
- Prolapse intervertebral disc

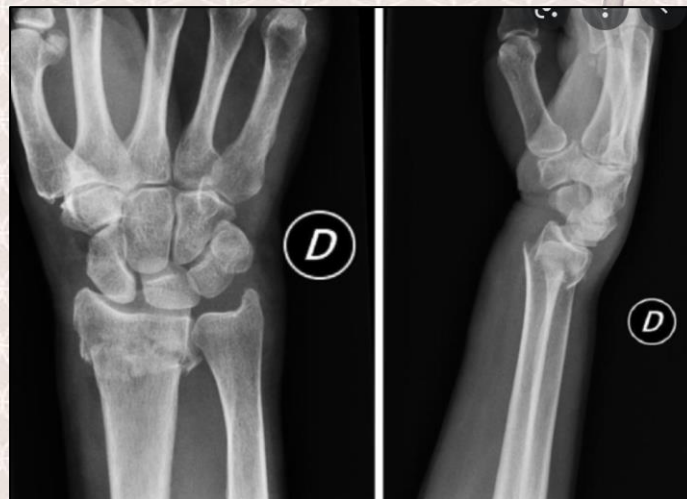
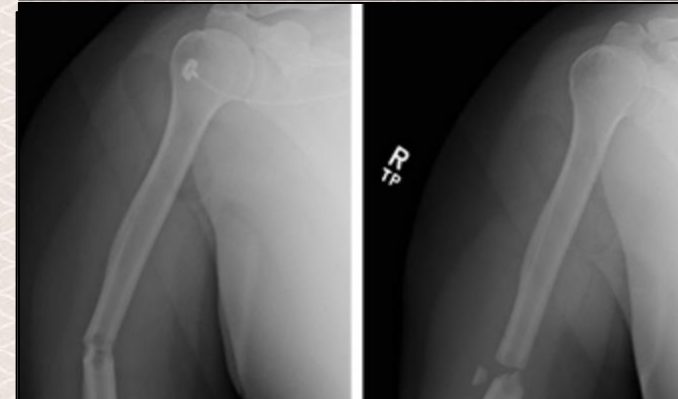
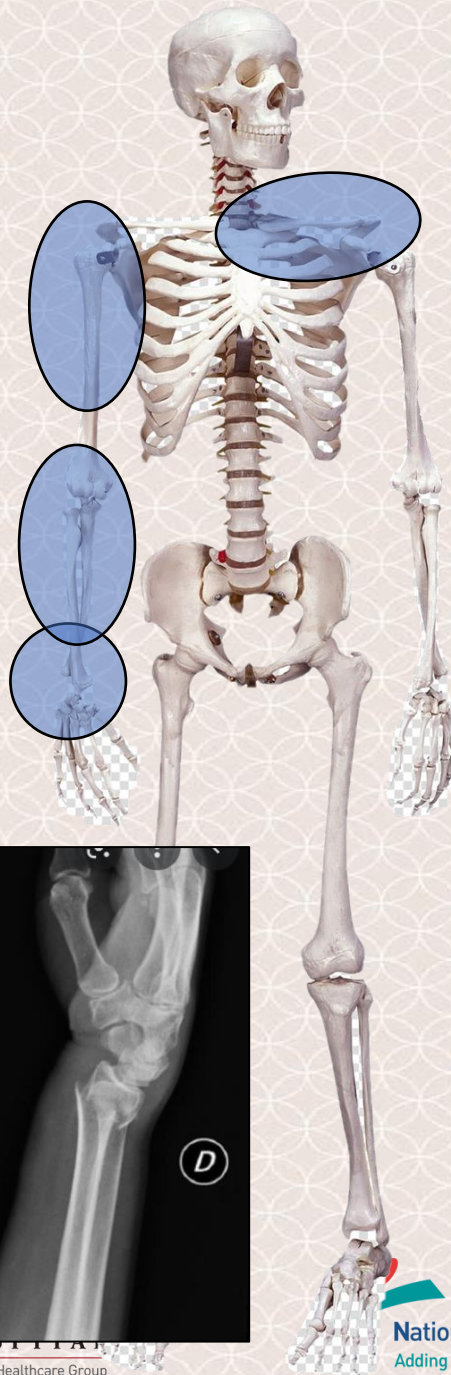




# Major Injuries

## Common Fractures

- Distal radius
- Forearm & Elbow
- Humerus
- Clavicle

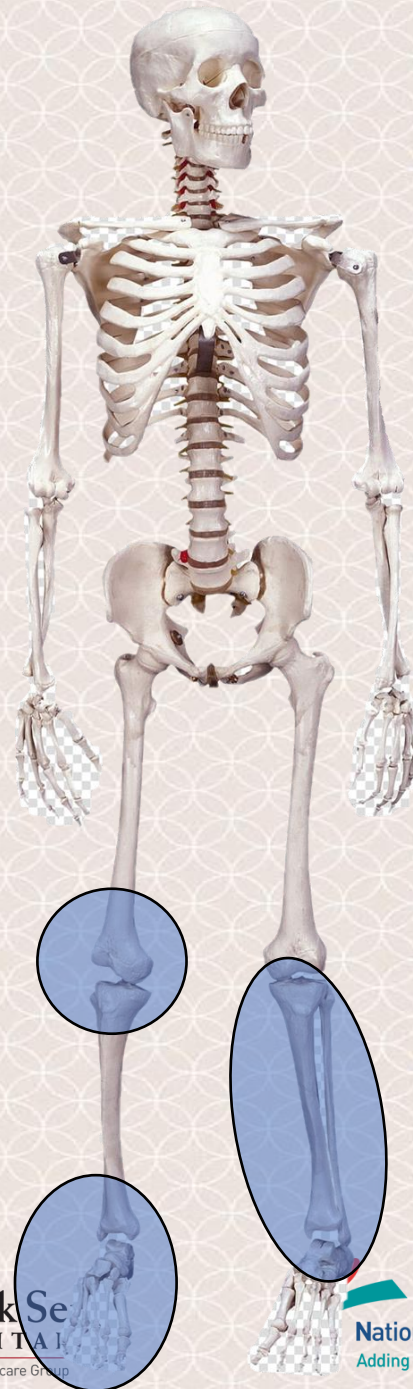




# Major Injuries

## Common Fractures

- Foot & Ankle fractures
- Tibia fractures
- Patella fractures

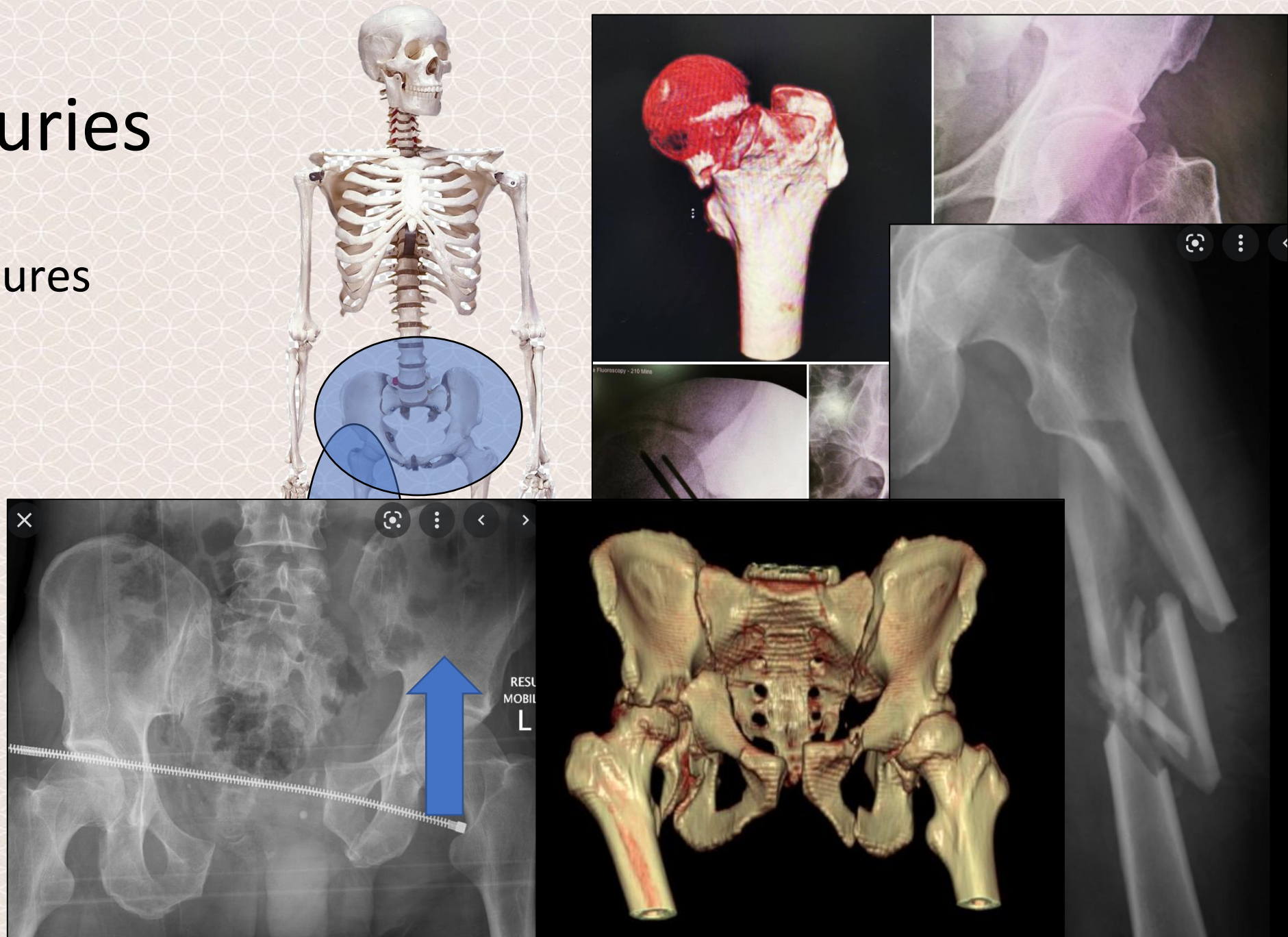




# Major Injuries

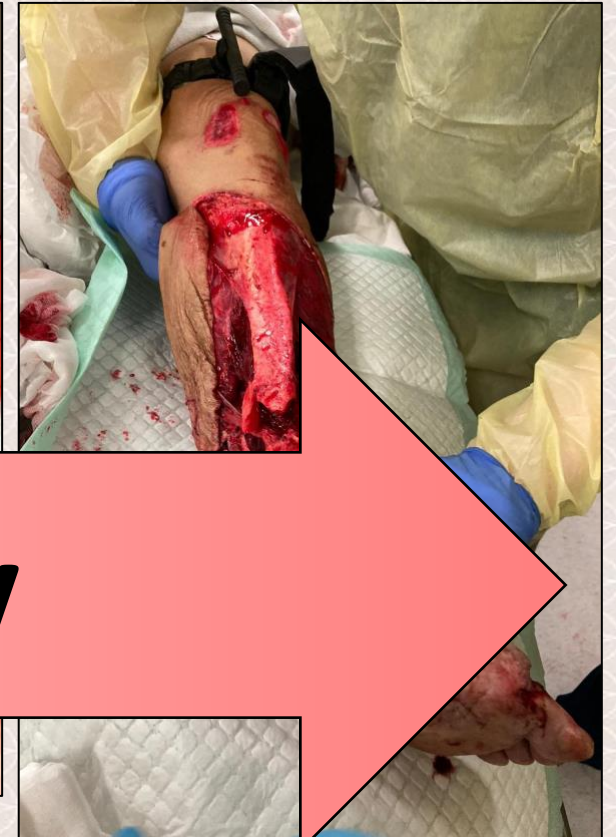
## Common Fractures

- Hip
- Femur
- Pelvic ring
- Acetabulum





# Major Injuries – Open Fractures



**Increasing Severity**

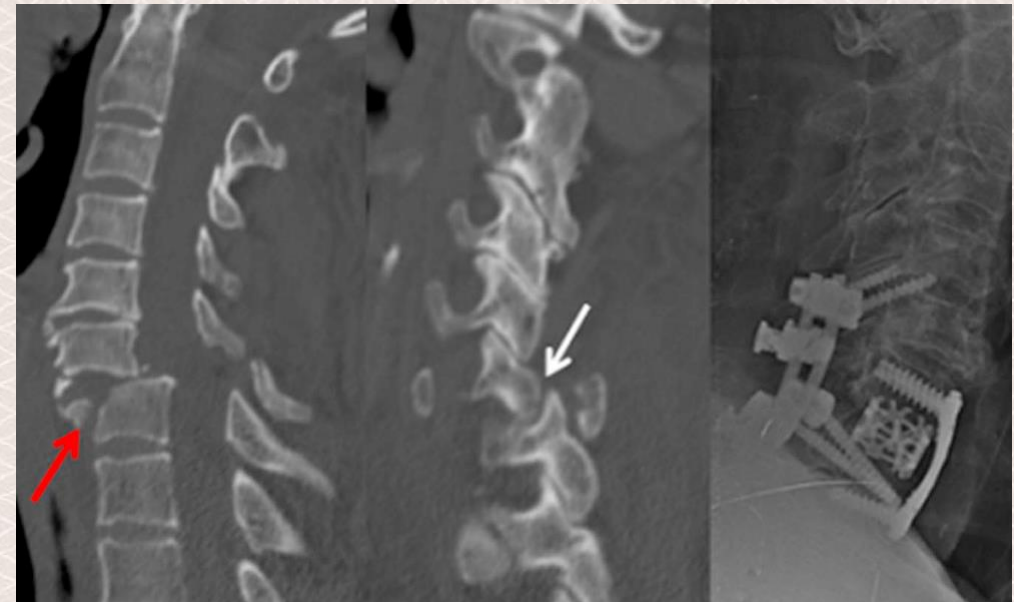
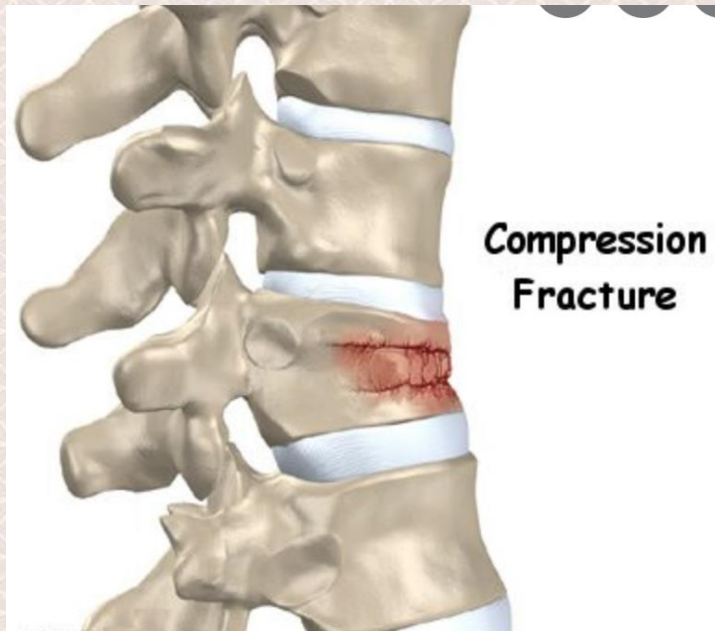
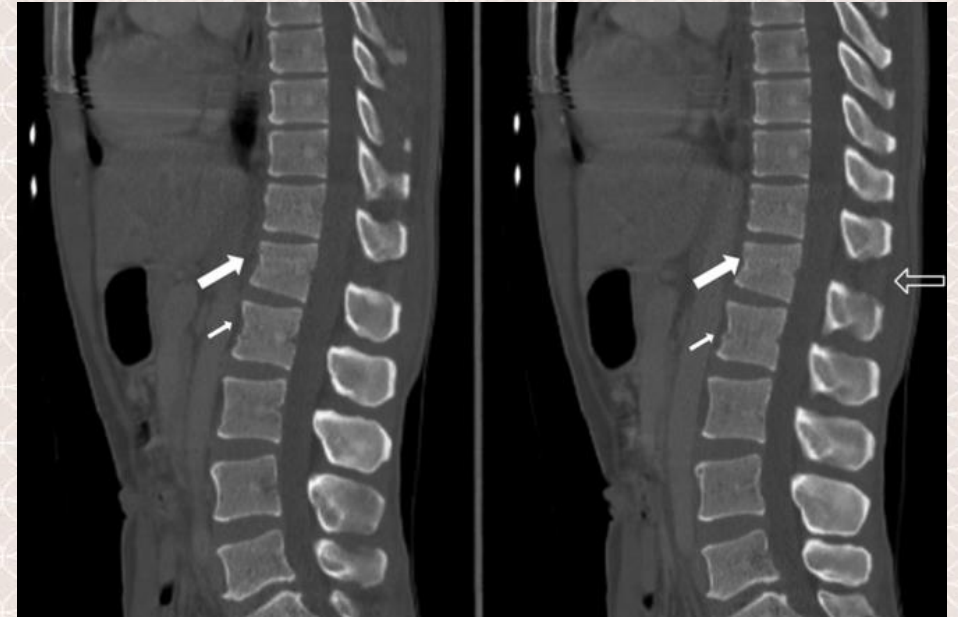
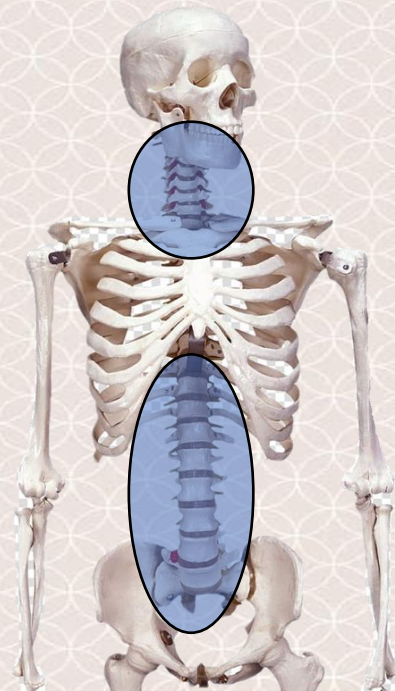




# Major Injuries

## Spine Fractures

- Thoracolumbar
- Cervical

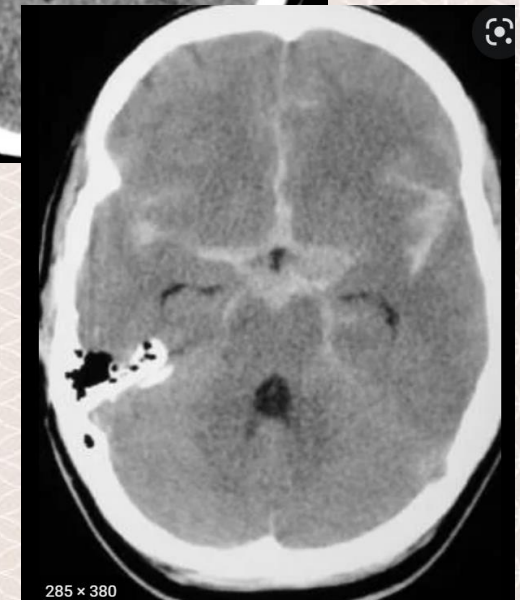
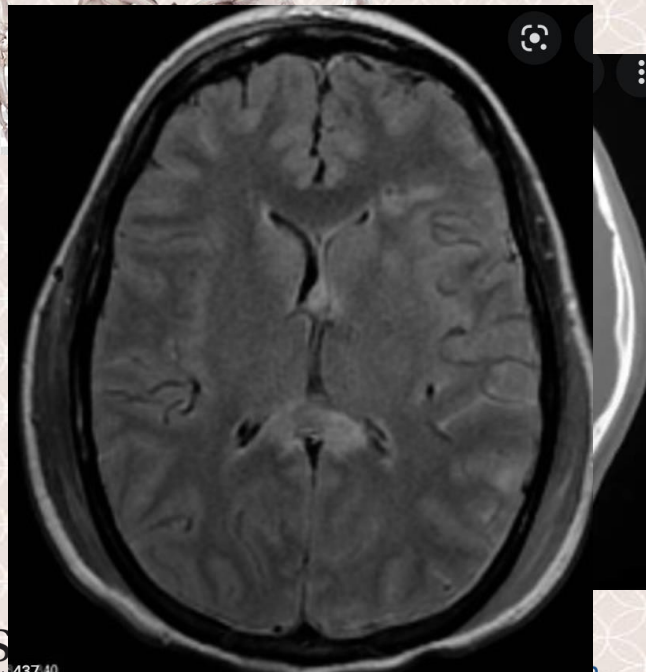
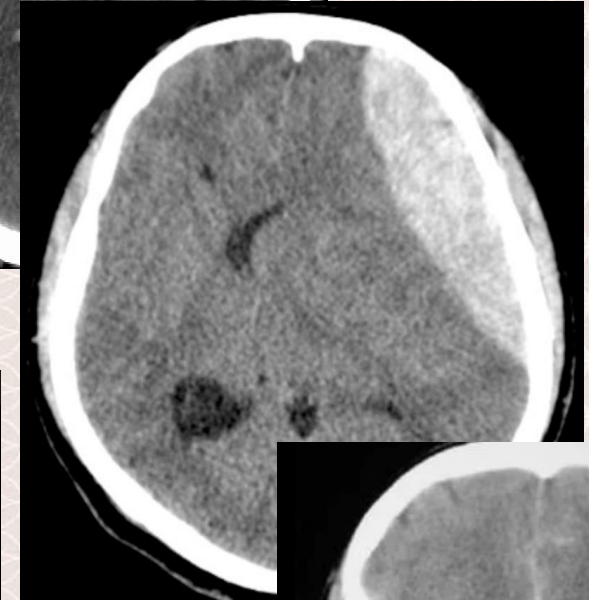




# Major Injuries

## Head Injury

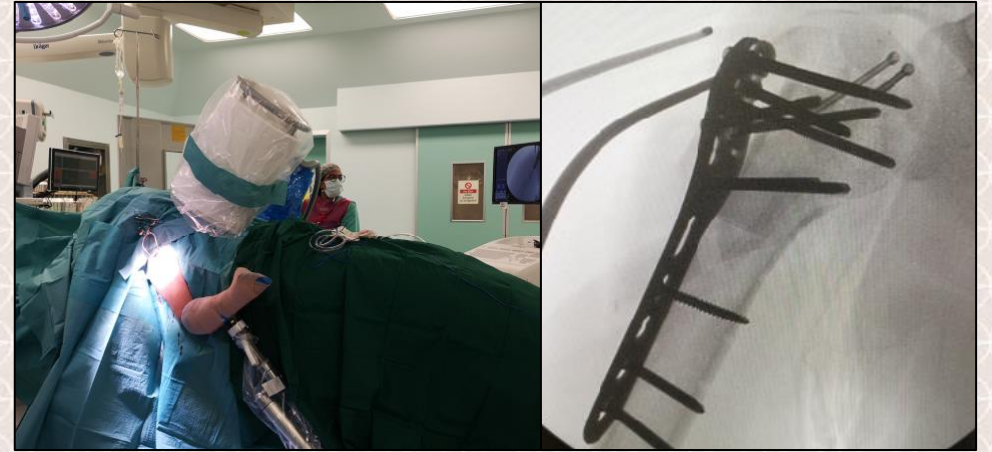
- Blunt trauma, concussion
- Skull fracture
- Intracranial bleeding
- Diffuse axonal injury





# Orthopaedic Management

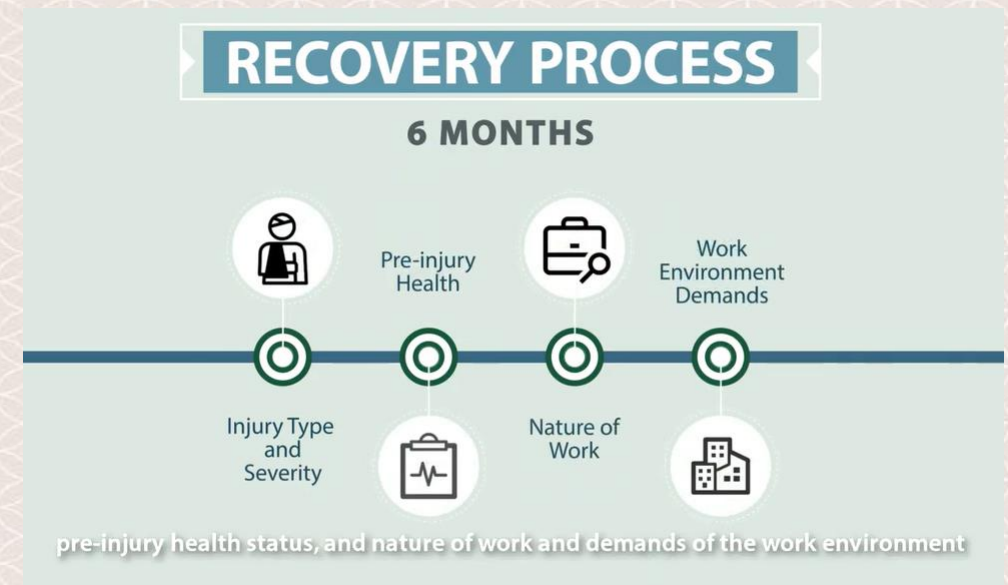
- Stabilise the patient
- Damage control surgery
- Definitive fracture surgery
- Rehabilitation





# Return to Work Programme

- Fully funded by insurer as long as within WICA
- Medically stable patients referred to occupational therapy
- Functional rehabilitation for handling work demands





# Psychosocial Impact

- “Worklessness is not just a financial or a social issue, it’s a health and wellness issue”
- Impact of work injury
  - Fear
  - Anxiety
  - Anger
  - Depression
  - Maladaption
  - Discrimination
  - Difficulties in access to care and compensation
  - Behavioural disorders
  - Sleep disturbances





# Psychosocial Impact

- Risk factors against recovery
  - Catastrophic thinking
  - Perceived injustice
  - Maladaptive coping
- Key steps towards psychological recovery
  - Maintain employer-employee relationship
  - Maintain employee health and well-being
  - Proactive engagement





# Challenges in the Orthopaedic Clinic

- Sequelae of injury is too disabling for worker to return to full capacity
- Inability for worker to return to work in a reduced capacity
- Unrealistic worker or employer expectations
- Insufficient rest given by employer despite medical leave
- Insufficient compensation by employer
- Termination of work permit – unable to continue treatment
- Exaggeration of symptoms & malingering



# In Conclusion

- Workplace injuries are costly to the employer, employee and economy – need for preventive measures.
- Workplace falls can result in a wide variety of injuries, minor and major, or even death.
- Rehabilitation is necessary to allow the worker to return to productive function.
- The psychosocial impact of workplace injury must not be ignored.





Building a  
Community  
of Care

Thank you for your kind attention!

