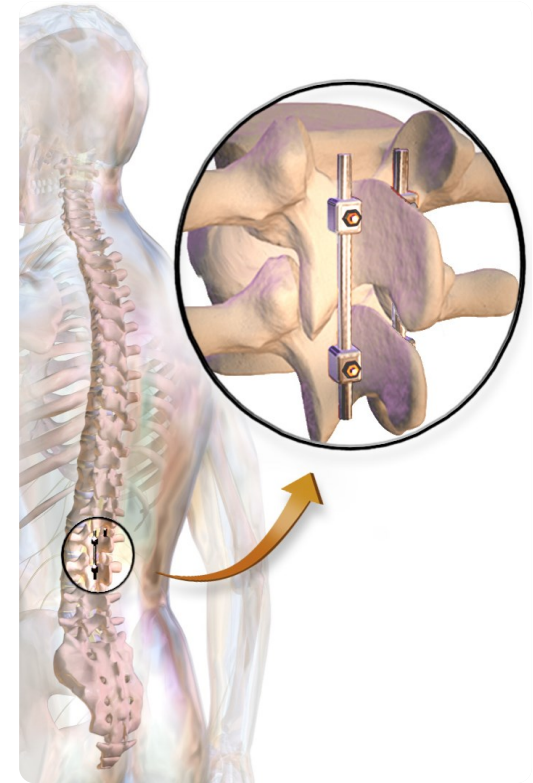


SPINAL CORD INJURY: HOW DOES SURGICAL FIXATION AFFECT OUTCOMES?

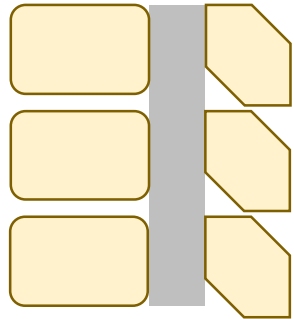
Katie Timms¹, Joanne Tipper^{1,2}, Ronaldo Ichiyama², Jessica Kwok², James Phillips³, Richard Hall¹

- 50 000 people in the UK
- Injury does not heal, treatments limited
- After injury, either:
- **Surgically secure the spine using metal rods**
 - OR
- **Bed rest and traction**

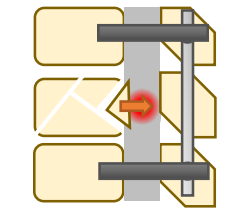
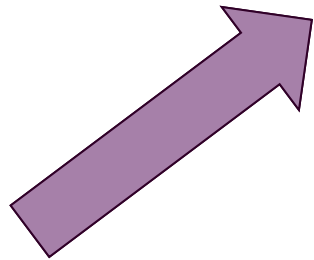
*** Which is better? ***



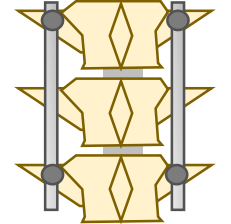
What happens during spinal cord injury and surgical stabilisation?



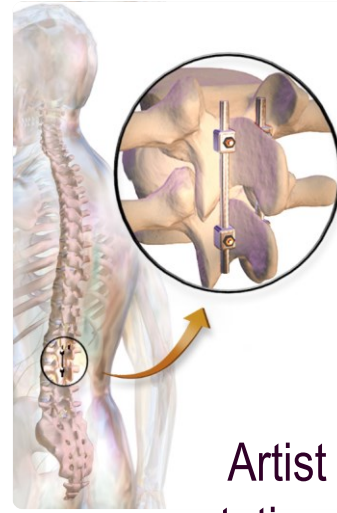
Surgery screws/plates



Side view



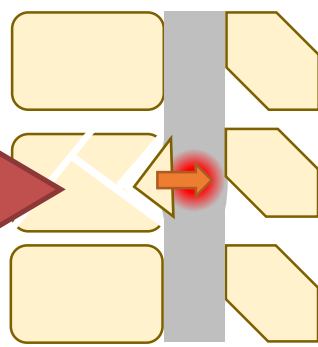
Back view



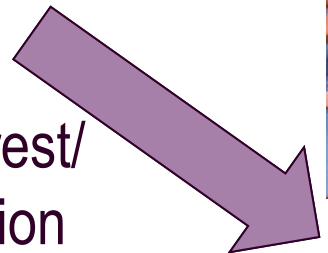
Artist representation

Failure (it breaks)
Infection
Limits movement

Force



Bed rest/
traction

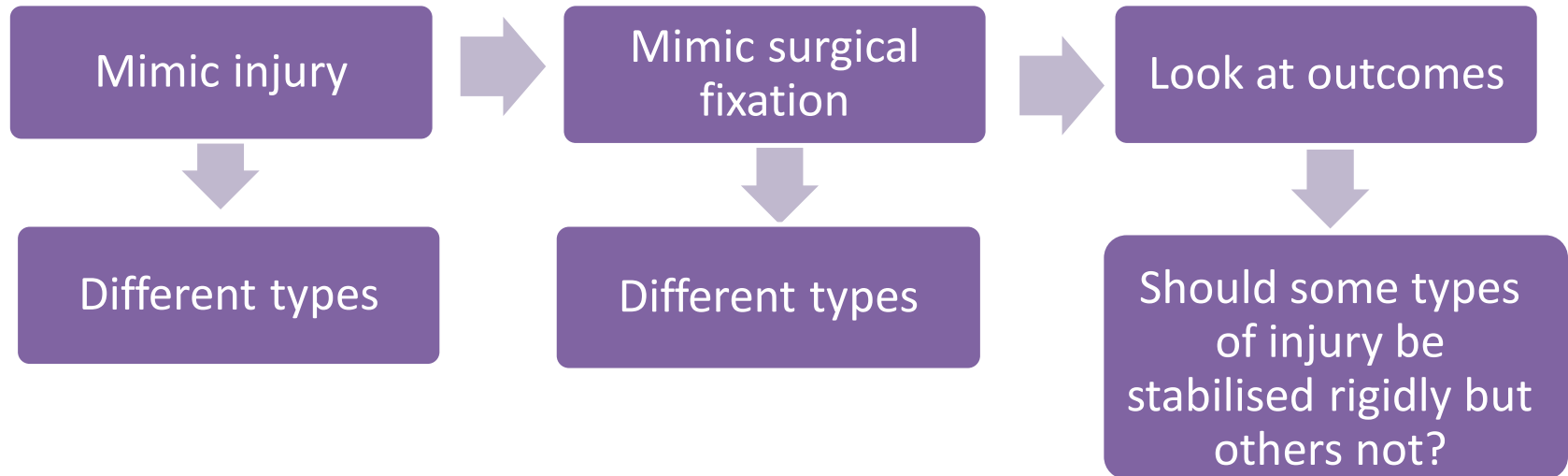


Can't 'break'
Does not limit movement
Does it restore function?



How will my research be carried out and who will it impact?

- Using experimental models of spinal cord...



- Furthers science and engineering knowledge
- Benefit patients with spinal cord injury – which affects all populations of all people
- Clinical impact is key in medical engineering