

Understanding Acquired Brain Injury

Acquired brain injury (ABI) is an injury caused to the brain since birth.

Traumatic brain injury (TBI) is an injury caused by trauma to the head (e.g. falls, road traffic accidents, assaults, sport injuries etc).

ABI also includes:

- Tumour
- Stroke (infarct or haemorrhage)
- Illness (e.g. encephalitis/ meningitis)
- Hypoxia (e.g. carbon monoxide poisoning, respiratory illness)



Types of Brain Injury



Primary Injury

(Occurs at the time of injury)

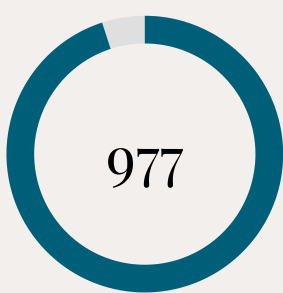
- Concussion
- Skull fracture
- Contusion
- Haematoma
- Subarachnoid or Focal Haemorrhage
- Axonal shear or Laceration

Secondary Injury

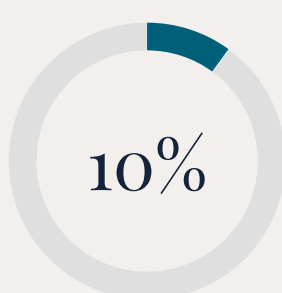
(Can evolve and complicate the primary injury)

- Cerebral Oedema
- Increased Intracranial Pressure
- Haemorrhage
- Seizure
- Ischaemia
- Infection

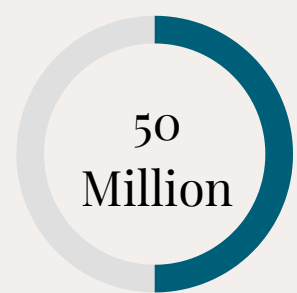
No. of Cases



There were approximately 977 ABI admissions per day to UK hospitals in 2019-20 – or one every 90 seconds.
www.headway.org.uk/



Approximately 10% increase in incidence of ABI in past decade.



Worldwide, more than 50 million people have a TBI each year.

Classifying Traumatic Brain Injury



Mild

Severe

Range of classifications used to communicate about the level of consciousness of patients with a traumatic brain injury.

- Glasgow Coma Scale Score
- Mayo Head Injury Classification
- Length of Post-Traumatic Amnesia



Purpose of Neuropsychological Assessment

Diagnostic Assessment

Diagnosis, classification, risk identification, treatment/rehab suitability.

Assessment for Neuropsychological Profile

Strengths and difficulties, which aspects are affected by injury?

Assessment for Capacity

Is this person able to make an informed decision about this specific question?

Assessment for Change

Is there a change since baseline assessment?
Progress with rehab, deterioration?

Medico-legal Assessment

Has a TBI been sustained? What is the impact? Prognosis?



Impact of Acquired Brain Injury



Physical
Cognitive
Emotional
Behavioural
Social

Supporting Physical Impact

Pain Management Strategies

Pain diary, ratings, distraction, acceptance.

Sleep Hygiene Strategies

Barriers to sleep? facilitators? Medication review?

Fatigue Management Strategies

Pacing, managing naps, activity levels, routine.

Check required **aids** are present.

Listen to and **acknowledge impact** of difficulties.

Consider whether more **professional input** is required.

Pain
Sleep
Fatigue
Disability
Mobility
Balance

Vision
Hearing
Swallowing
Bowel
Bladder
Sexual Function

Supporting Cognitive Impact

Language
Attention
Memory
Learning

Executive
Functioning
Coordination
Insight
Spatial



Language and Communication
Pace? Augmented communication.

Attention

Reduce distractions (visual and auditory), take breaks, pacing.

Processing Speed

Talk slower, give more time to take in, process and respond to information.

Supporting Emotional Impact

Emotional Lability

Explain brain reacts more quickly and strongly now so feel and show emotions more.

Quicker to Anger

OK to feel angry but important to learn strategies to manage angry feelings effectively, Headway resources, explain, explore triggers, use strategies – e.g. traffic lights, counting, distraction, diaries.

Adjustment and Identity

Takes time to adjust to changes, ups and downs (ok to grieve for many losses and changes), try not to get stuck comparing to ‘before’, gradually introducing new activities can help.

Anxiety

Reiterate that it is normal to feel anxious at times, encourage not to avoid feared things, building up gradually, provide resources and information.

Trauma

e.g. nightmares, flashbacks, easily startled, feeling numb.
Resources and information, stabilisation and self-care.

Depressed Mood

e.g. sleeping more or less, tearful, eating more or less, moving slowly or restless, loss of pleasure, thoughts of self-harm or suicidal thoughts. Resources and information, gradually increasing activity levels, safety/crisis plan if needed.



Supporting Behavioural Impact

Impulsive Behaviour

Traffic light/ ‘stop and think’ strategies.

Disinhibited behaviour

Be aware of potential risks, explaining to others.

Obsessive, Rigid, Repetitive Behaviour

Explain to key others, discuss together and agree strategy – e.g. prompt to move on to new task, timer.

Apathy/ Reduced Motivation

Understanding and explaining it is related to brain changes, routine, prompting, checking it's not depression.



Supporting Social Impact

Social Withdrawal

Explore reasons, support to gradually increase activities in manageable ways, try new activities, aim to boost self-confidence. Could try Headway groups?

Communication Barriers

Ask about and understand specific difficulties, could set goals and gradually work towards them.

Relationship and Family Breakdown

Respite support, information and resources, ‘time out’, self-care for all.

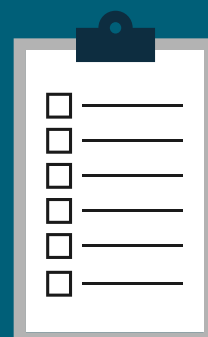
Losses and changes

Acknowledge changes and losses, gradually work towards new focus.

Potential Risk Issues

For assessment, Monitoring and Potential Intervention

- Increased suicide risk.
- Possible child protection concerns.
- Possible adult protection concerns.
- Potential relationship/family breakdown.



Useful Links

For further information and free resources visit:

- <http://www.aberdeenshirecp.com>
- www.headway.org.uk
- www.ukabif.org.uk
- www.brainfacts.org
- www.acquiredbraininjury-education.scot.nhs.uk
- SIGN 130 Brain Injury Rehabilitation in Adults:
<https://www.sign.ac.uk/our-guidelines/brain-injury-rehabilitation-in-adults/>

References

- Headway (2022) Statistics. <https://www.headway.org.uk/about-brain-injury/further-information/statistics/>