

## Acquired Brain Injury

### Overview Description

Around 40,000 children and young people experience a brain injury every year according to The Children's Trust (2022). This suggests that one child in every classroom will be affected by an acquired brain injury (ABI). However, professionals working in education frequently report that they know little about ABI and how to practically support children in their care (Linden et al, 2013).

An acquired brain injury is defined as an injury to the brain which occurs after birth, following a period of typical development. The injury can change the way a person thinks, feels and responds to the world around them. An ABI can occur following any of these events:

- traumatic brain injuries (TBI) (such as, falls, assaults, accidents)
- illnesses, infections or other medical conditions (e.g. encephalitis, meningitis, stroke, and brain tumours).
- Metabolic disorders such as liver or kidney or diabetic coma
- Medical procedures such as surgery for removal of a tumour, or the effect of drugs or radiation to treat leukemia or similar.

Each injury is unique, which means that symptoms can vary widely according to the extent and location of the damage to brain tissue. This means that the effects on each child's development can differ widely and the effects may take years to develop. The term "full recovery" can be inaccurate when referring to ABI. Whilst some children and young people may present as having "recovered" from ABI, it is likely that they may still be experiencing some effects of the ABI into adulthood. Some changes which may be considered to be "short-term" may be a permanent shift in the child's or young person's presentation.

Brain injuries can have a significant impact on students' attainments and experience within education (Sariaslan et al., 2016). Changes in cognition and behaviour may only emerge sometime after the initial injury. Cognitive changes can take time to become noticeable and can depend on the age of the child (Middleton, 2001). They are also at risk of exclusion from school and social isolation from peers. Therefore, it is important to consider whether illness or injury could be contributing to current needs and how best to support them.

This chapter discusses ABI and how this might impact children and young people in education settings. It also provides advice, guidance and signposts to helpful organisation and resources.

### How can ABI impact children and young people?

Many children and young people affected by ABI present with a mixed set of difficulties, which could potentially include mental health or developmental delay. Many of the difficulties a child or young person faces from an ABI are initially invisible which means that **assessment over time** becomes an essential tool to support them within education. Usually an ABI leads to two types of changes: direct (loss of limb or damage to the brain) and indirect (e.g. reduced mobility, memory loss, depression).

It is common for students with an ABI for it to have some impact on their cognition and learning skills. The ways in which the consequences of ABI become apparent in academic progress and attainment will vary, depending upon the severity of the injury, age at injury and the individual themselves.

The below table describes how children and young people’s development can be impacted by an ABI. Many of these are indirect changes. Each child and young person will have a different combination and severity of symptoms.

<p><b>Cognition and learning:</b></p> <ul style="list-style-type: none"> <li>• Slower processing speed: may be noticed in their speed of writing, difficulties transitioning between tasks, unable to complete tasks</li> <li>• Attention and concentration: readiness to learn, multitasking, shifting attention, distractibility, staying on task</li> <li>• Executive functioning skills: planning, organisation, goal setting, inhibition, problem solving</li> <li>• Difficulty managing within a busy and noisy classroom.</li> <li>• Difficulty recalling information and retaining new information.</li> <li>• Hold on to information from one situation to another</li> <li>• Following and remembering instructions, a book, film or story</li> <li>• Sequencing of stages in new tasks</li> <li>• Route finding (e.g. classroom, locker)</li> <li>• Increased fatigue throughout the school/college day</li> </ul>	<p><b>Communication and Interaction:</b></p> <ul style="list-style-type: none"> <li>• Speech: slower speech or articulation</li> <li>• Social communication (interpreting social situations and understanding non-verbal communication, increased socially inappropriate language and behaviour)</li> <li>• Expressive Language (ability to communicate wants and needs)</li> <li>• Difficulty in understanding language</li> <li>• Reduced ability to learn new vocabulary</li> <li>• Receptive language (understanding of language)</li> <li>• Information processing difficulty</li> <li>• Maintaining conversations can be difficult.</li> </ul>
<p><b>Social, Emotional &amp; Mental Health:</b></p> <ul style="list-style-type: none"> <li>• Intense emotions or mood changes</li> <li>• Loss of interest</li> <li>• Disinhibition</li> <li>• Irritability</li> <li>• Aggression</li> <li>• Depression</li> <li>• Anxiety and fear</li> <li>• Difficulties in regulating emotions</li> <li>• Obsessiveness</li> <li>• Impulsivity</li> <li>• Low self-esteem</li> <li>• Personality changes</li> </ul>	<p><b>Sensory and Physical:</b></p> <ul style="list-style-type: none"> <li>• Difficulties with walking or gross motor skills, hand-eye coordination, tremors in movements, clumsiness</li> <li>• Inability to smell, visual or hearing impairments</li> <li>• Inability to control bodily functions e.g. bladder or bowel issues</li> <li>• Loss or increase of appetite</li> <li>• Rapid weight increase</li> <li>• Significant fatigue</li> <li>• Early onset of puberty or delayed onset of puberty</li> </ul>

\* This table is adapted from [childbraininjurytrust.org.uk](http://childbraininjurytrust.org.uk), Walker and Wilde (2005)’s book “Educating children and young people with acquired brain injury” and the NASEN Childhood ABI: The hidden disability (2018).

It's important to consider that children and young people with ABI may present differently to how they did before the injury. They may have particular weaknesses in one area of development or this may be equally spread across areas. Some children and young people with ABI also may appear to have lost skills which they had previously. This can have a significant impact on the student's perception of self but also their relationships with peers and adults within their education setting.

## **Social, Emotional and Mental Health**

### **Identity**

It is often underestimated the effect that ABI has on children and young people and young people's self-identity and self-esteem. Children and young people are often left unable to do things that they once were confident in and they can struggle to adjust to needing additional support in tasks which they used to be able to do independently.

Not all children and young people will notice the changes after an ABI. However, when they do they are likely to become more easily frustrated and unable to see or accept their new limitations. This can lead to difficult feelings of embarrassment, shame, sadness or anger.

Students with ABI can be more self-consciousness. The changes they have experienced may be more obvious during changing time for sports, swimming, PE and so on. It is not surprising that those affected could be reluctant to participate in this type of activity.

### **Friendships**

Friendships can be challenging when a child or young person has an ABI:

- Friendships can dissipate.
- Sometimes the skills needed to maintain existing friendships and build new friendships may have been affected directly by the injury to the brain such as listening skills, empathy, insight, ability to follow conversations.
- The changes in a young person might make it difficult for their friends to understand or relate to them because they are 'not who they used to be'.
- They can have a decreased friendship circle which can lead to loneliness and isolation

Children and young people may also be more vulnerable socially as they may go on to have sexually disinhibited behaviours which can cause isolation from peers and friendship groups, as well as making them more potentially vulnerable generally in society.

## Changes at home that can impact children and young people with ABI

A child experiencing an ABI can have significant impacts on their home and family's lives. Below are some examples of how siblings or parents/carers may be affected:

### Siblings

They may have been present at the event and be affected by survivor guilt or post-traumatic stress

Siblings may receive less attention and support from their parents due to hospital visitations or their sibling needing more support

Siblings may become additional carers to help their parents or injured brother or sister.

They may struggle with the changes in their brother or sister particularly if they have a different personality

They may find the disruption to home life hard to cope with and could be reluctant to ask friends to come to their home because they feel embarrassed, and then feel guilty for having these thoughts.

Becoming a carer of a child who now has disabilities or additional needs

Needing to provide their child with a greater level of supervision

Taking on the role of expert and advocate to get the best therapeutic and educational support possible for their child

Possible reductions in financial circumstances especially if they need to reduce or stop working in order to care for their child

Having less time for themselves or guilt, anger or blame about the event that caused the injury

### Parents or carers

## How to Support a Student to Return Following their ABI

Returning to school or college can have a crucial role in their recovery. It can be difficult for children and young people with an ABI to return to school or college after an extended absence; they may struggle to fit back into their friendship group or have some of the difficulties that they did not have before.

There is no “one way” for a child or young person to return to school or college. It will be important to work with them and their family to work out the best transition plan. However, children and young people may benefit from:

- **A gradual approach:** Child Brain Injury Trust recommends that a gradual reintroduction to education may be beneficial for children and young people with ABI.
- **A key worker in school:** This designated person should have close contact with the family who can support the student throughout their time at the setting. It can ensure continuity and a clear and determined approach to supporting the child at school. This staff member does not have to be a teaching assistant or a teacher.
- **Staff training:** To ensure staff feel confident to support a child or young person with ABI.
- **Information sharing:** This may include information about the injury as well as their current presentation. This information should be shared with all adults who are involved to ensure consistency.
- Consider using a **checklist**, like the one from NABLES, to ensure vital steps have been carried out before a student returns to school, for example considering interim funding applications and accessing free training on ABI for staff.
  - [https://cdn.ymaws.com/ukabif.org.uk/resource/resmgr/return\\_to\\_education/return\\_to\\_education12\\_05\\_2021/abi\\_return\\_sencokeyworker\\_fo.pdf](https://cdn.ymaws.com/ukabif.org.uk/resource/resmgr/return_to_education/return_to_education12_05_2021/abi_return_sencokeyworker_fo.pdf)
- **Education for peers:** Other children and young people may struggle to understand why their peer may present differently to how they did before. With consent from the student and their family, other children and young people may benefit from open discussion about ABI and how they can help their peer on return.
- **Consider support for parents and/or siblings:** Good communication between home and school/college is vital for securing the best possible educational progress and attainment

SENCO/keyworker return to education checklist			
Action	Person responsible	Completed by	Actioned
Identify a keyworker e.g. SENCO/staff member who knows the young person well			
Establish regular communication with parents/ carers and child or young person			
Engage with the hospital team e.g. attend MDT meetings and discharge planning meetings, link with the hospital school and provide ongoing information on child/young person's strengths and needs.			
Link with health professionals involved e.g. neuropsychologist, speech and language therapist, occupational therapist, physiotherapist, consultants and specialist doctor			
Refer to educational support services e.g. educational psychologists, specialist teachers, home tuition services if required			
Explore access arrangements to support the return to school e.g. environment adaptation, timetable, phased return			
Consult with professionals when developing individual support plans e.g. access reports and training			
Consider application for interim funding based on health needs			
Continue with regular team around the child meetings in order to monitor progress and adapt the intervention plan according to need			
Establish if there is a need for a health care plan e.g. administering medication or personal care needs and training for staff			
Discuss early application for Education Health and Care Plan with practitioners and supporting professionals			
Access free training for staff and peer group on Acquired Brain Injury			
Ensure that information about the child/young person's needs are communicated to all staff			

## Adaptations to Teaching and Learning for Children and Young People with ABI:

For the majority of children and young people who have had an ABI, their education setting will be a key part of their rehabilitation journey; relearning about the world around them and how they fit in. It is important to consider whether the student requires an adaptive curriculum that is flexible to their strengths and areas of need and/or that provides opportunity to catch-up or re-learn skills and curriculum knowledge.

The following strategies have been adapted from 'Must Try Harder' by the Child Brain Injury Trust and the Walker and Wicks (2005) book (*'Educating children and young people with acquired brain injury'*)

### Attention and Concentration Strategies

Attention needs are closely linked to memory difficulties and fatigue and they are very common in children and young people with ABI. Attention, concentration and memory difficulties can also impact student's literacy skills. Strategies which may help:

Keep the task short, simple and focused. Shortened tasks enable the student to sustain attention, encouraging completion.

Break down tasks into achievable chunks and limit the amount of information presented.

If they are off task, make a specific task-related comment or direction that will help the child re-focus; a simple command to get on with work may not be helpful as he/she may have forgotten what it is they are meant to be doing.

Avoid multitasking and avoid asking them to do more than one thing at a time, e.g. answering a question while carrying a lunch tray.

Reduce the amount of copying from the board and textbooks.

Vary the type of tasks to maintain interest.

Reduce distractions within the classroom (auditory and visual). Think about the child's position in classroom and where could be less distracting.

Limit the amount of information presented, e.g. reducing tasks on a printed page or providing a window that frames small amounts of information to remove distractions on the page.

## Memory and Processing Strategies

Memory difficulties are quite common following an ABI. Short-term memory loss can be an issue in the classroom, in the playground and at home. Their memory difficulties can fluctuate from day to day:

- Reduce distractions
- Repeat instructions to ensure that key aspects are remembered. Numerous repetitions and rehearsals of information are necessary.
- Written instructions to compliment verbal, including pictorial representations.
- Provide opportunities for over learning (repetition and variation) and link new information to previously learnt knowledge
- Present information in small chunks
- Establish a routine. Consistency provides the child with stability and security and helps with their memory skills.
- Develop a memory book to include daily timetables, notes regarding ongoing work and things to remember. Some children and young people may also need information such as classroom seating charts, teachers' names or room numbers.
- Present information in a variety of ways
- Pre-teach information and talk through lessons during and afterwards.
- For multi-step tasks prepare an outline (task organiser) to be used as a guide.
- Ask them to repeat information to make sure that it is understood and encoded.
- Eliminate timed measures to assess learning, whenever possible.
- Amend expectation of the amount of work required and allow extra time for completing timed assessments.
- Consider frequent breaks to help students "recharge".

## Communication and Interaction Strategies

Children and young people's communication, speech and interactions skills can be impacted in various ways (see table above). This toolkit has a chapter that provides general strategies for speech and language needs which may be relevant to support a student with ABI.

## *Social, Emotional and Mental Health Strategies*

- Model calm, controlled and predictable behaviour within set boundaries and routines. Prepare students for changes within the classroom or school day.
- Help pupils to reflect on their own behaviour: students may need targeted intervention to help them to develop their emotional literacy, emotional regulation skills or social skills
- Help them to understand their areas of needs and the strategies that support them: focus on them learning to do these independently over time.
- Provide a key adult with whom the pupil can build a positive relationship
- Redirect the child as soon as behaviour begins to be inappropriate, such as removing them from the situation or involving them in another task, and provide alternatives for inappropriate behaviour rather than just telling them not to do something.
- Give frequent and consistent positive reinforcements and provide feedback regarding behaviour and consequences. A growth mindset approach throughout the whole classroom will be helpful.
- Work with pupils and encourage them to set goals so they can see the progress they are making
- Co-regulation and emotion coaching techniques (see relevant chapters) will also support student's emotional regulation skills.

## *Sensory and Physical Strategies*

- Consider alternative methods for recording work
- Establish 'clutter-free' classroom rules and rest breaks
- Enlarge printed materials, e.g. text books or worksheets and reduce the amount on one page.
- A 'buddy' to help navigate the school/college environment
- Consider referrals to relevant professionals, such as Occupational Therapists.

Top  
Tips!

For Early  
Years

The age of the child at the point of the ABI can impact their typical development including their literacy skills, their problem solving skills, executive functioning skills and emotional regulation skills. It's important to work preventatively and provide early intervention for any student with an ABI with a particular focus on attention and listening skills, memory skills and emotional regulation skills.

A good transition from an early years setting to a primary setting will also be important. See the Good Transitions chapter for advice on planning for a transition from early years to primary school.



Post-16

Top  
Tips!

During adolescence any direct impact of the brain injury on self-regulation may negatively interact with normal adolescent development, sometimes causing very challenging behaviours. It is during adolescent that over-sexualised and disinhibited sexual behaviours may become more apparent. Adolescents may need additional support to help them to learn boundaries of healthy relationships, how to stop their impulses and helpful coping strategies.

Young people with an ABI may also find the following challenging about college: different traveling arrangements, new buildings, moving between classrooms and buildings, new teachers and peers, different subjects, new routines etc. The Child Brain Injury Trust has lots of information about how to support children and young people's transition to KS3. These suggestions have been adapted for post 16 settings.

- Pastoral staff to work closely with secondary school to understand the needs
- Additional transition days to meet new staff and students, navigate the college environment, and to explore reasonable adjustments/additional support required
- Having a "buddy" to accompany the young person on their first few days of college
- Having a key worker to work closely with during the transition and throughout their experience at college
- Awareness training on ABI for staff

The Good Transitions Chapter has further advice to support a student to transition to post-16 provisions.

## Useful Organisations, Resources and Links

**The Child Brain Injury Trust** provides a range of resources and factsheets, and offer free, training courses (supported by The Eden Dora Trust for Children and young people with Encephalitis) for teachers and other professionals:

[www.childbraininjurytrust.org.uk/](http://www.childbraininjurytrust.org.uk/)

They also offer Child and Family Support Coordinators to provide support for students transitioning to secondary school by calling their helpline **0303 3032248** or emailing [helpline@cbituk.org](mailto:helpline@cbituk.org) .

**The Brain Tumour Charity** provides resources to support CYP after brain tumour diagnosis:

<https://www.thebraintumourcharity.org/get-support/children-and-young-people-and-families-service/education-resources/>

**The Children and Young People's Trust** provides a broad range of information, support and advice about ABI, as well as excellent resources around returning to

education: [https://www.thechildren and young peoplestrust.org.uk/brain-injury-information](https://www.thechildrenandyoungpeoplestrust.org.uk/brain-injury-information)

**N-ABLES** provide a set of resources which includes an ABI return booklet, an ABI return poster, a SENCO/keyworker checklist and a supporting information-sharing within school document <https://ukabif.org.uk/page/ABIRETURN>

## Books

Walker, S., & Wicks, B. (2005). Educating children and young people with acquired brain injury. Routledge.

“My Brother is a Shape Shifter” Support booklet for siblings with ABI:  
[https://childbraininjurytrust.org.uk/wp-content/uploads/2019/05/1832\\_CBIT\\_My\\_Brother\\_leaflet\\_8p\\_A5\\_Final.pdf](https://childbraininjurytrust.org.uk/wp-content/uploads/2019/05/1832_CBIT_My_Brother_leaflet_8p_A5_Final.pdf)

## References

Linden, M.A., Braiden, H.J. & Miller, S. (2013) Educational professionals' understanding of childhood traumatic brain injury. *Brain Injury*, 27(1), 92-102

Luiselli, J. K., Sherak, D. L., Dunn, E. K., & Pace, G. M. (2005). Sexual behaviors among children and adolescents with acquired brain injury: an incidence survey at a community-based neurorehabilitation center. *Behavioral Interventions*, 20(1), 17-25.

Middleton, J.A. (2001) Practitioner Review: Psychological Sequelae of Head Injury in Children and young people and Adolescents. *J.Child Psychol. Psychiat.*, 42(2), 165-180.

The Children and young people's Trust. About. 2022. [https://www.thechildren and young peoplestrust.org.uk/about](https://www.thechildrenandyoungpeoplestrust.org.uk/about)

Sariaslan, A., Sharp, D. J., D'Onofrio, B. M., Larsson, H., & Fazel, S. (2016). Long-term outcomes associated with traumatic brain injury in childhood and adolescence: a nationwide Swedish cohort study of a wide range of medical and social outcomes. *PLoS medicine*, 13(8)