

## What is Hemiplegia?

- Hemiplegia is a condition that affects one side of the body. We talk about right or left sided hemiplegia depending on the side that is affected.
- It is a relatively common condition affecting 1 child in 1000.
- It is caused by damage to part of the brain. This generally causes the children have muscle tightness (spasticity) seen on one arm and leg. The muscles themselves work, but receive the wrong information from the brain.
- Hemiplegia is a non – progressive condition and severity will vary between very mild cases with little noticeable difficulties to more severe cases where all active movement is affected on one side.
- It will not worsen over time. However as a child grows and develops they may find their condition affects them in different ways. A lot can be done to minimise the effects of hemiplegia as many functions of the damaged area can be taken over by another part of the brain.
- Children with hemiplegia may be seen by a Physiotherapist or Occupational Therapist. This support may be ongoing or may be periodic when needed.
- As hemiplegia is caused by damage to the brain, motor difficulties may not be the only difficulty.

### Types of Hemiplegia

- In 80% of cases, hemiplegia occurs during or soon after birth. These cases are known as Congenital Hemiplegia.
- In other cases hemiplegia occurs later in a child's life due to a stroke, accident or infection. In these cases it is know as Acquired Hemiplegia.

### Associated Difficulties

- According to a Hemihelp family survey 63% of children had additional diagnoses associated with Hemiplegia. These ranged from epilepsy (42%), visual impairment (40%) to speech difficulties (34%) and ASD (14%). Many other parents reported other difficulties such as irritability, attention span, anxiety, obsessiveness, maths difficulties, visual spatial skills and reading. Other reported associated difficulties may be:
  - short concentration span easily distracted
  - low retention of short-term memory
  - hyperactivity (severe in 10% of those studied)
  - spatial disorientation and low visual perception
  - shyness and self-consciousness
  - lack of confidence
  - inability to make/sustain friendships
  - anxiety
  - irritability, aggressiveness, tantrums and defiance (including 25% of 6-10 year olds)
  - immature behaviour
  - poor co-ordination of both movement and information
  - worries and fears affecting well-being, activities, work and sleep.

(cerebra.org.uk)

## Hemiplegia and the Early Years

### General classroom tips:

- Encourage use of both hands whenever possible.
- When sitting at a table, ensure symmetrical posture with affected hand on the table
- Feet should be flat on the floor (or footstool) and table should not be too high
- Ensure there is space for the affected arm and plenty of space for the stronger hand (e.g. try not to position a left handed child with Hemiplegia next to a right handed pupil)
- When using sand/ water tray or easel, encourage child to stand facing forwards rather than sideways.
- If working in an adult led group, the adult is best positioned directly in front of the child.
- When sitting on the carpet, position the child at the front or middle of the group, looking straight ahead.
- Encourage awareness of weaker side through mirror play, naming body parts and two handed activities.
- Focus on what the child can do to promote a positive attitude
- Encourage activities that involve crossing the midline

Possible areas of difficulty	Ideas to try	Consider
Moving Around- poor balance, more likely to fall	<ul style="list-style-type: none"> <li>• Avoid busy areas</li> <li>• Supervision over uneven/ rough ground</li> <li>• Encourage use of handrails for steps</li> <li>• Heavy doors will need to be opened</li> <li>• Make sure there is plenty of room between tables or activity areas.</li> <li>• In cloakrooms allocate the child with a peg at the end of the row.</li> </ul>	<p>Balance and co ordination may vary from day to day- particularly when tired or unwell</p> <p>The outside learning environment may need to be risk assessed and children may need adult support to access some equipment.</p> <p>Be aware of potentially slippery floors in bathroom, water play area as these are an added hazard.</p>
Dressing	<ul style="list-style-type: none"> <li>• Break down difficult dressing tasks into achievable steps.</li> <li>• Do not over support- give extra time for child to attempt easier aspects of dressing.</li> <li>• Encourage dressing skills through play e.g. fancy dress</li> <li>• If splints are worn, ensure they are put on correctly and all staff have been shown and are confident to do this.</li> </ul>	<p>Clothing can be adapted with Velcro or poppers instead of buttons and laces.</p> <p>Tight fitting clothing will be more difficult to remove than loose clothing.</p> <p>When helping put on a coat or cardigan encourage child to put affected arm in clothes first.</p> <p>Undressing is often easier than dressing.</p>
Eating and Drinking	<ul style="list-style-type: none"> <li>• Help may be needed to open packets</li> <li>• Food may need to be cut up.</li> <li>• Dycem non slip matting under the tray or plate will stop it moving.</li> <li>• If child is a messy eater, encourage them to clean mouth etc afterwards using mirror and facecloth.</li> </ul>	<p>Adapted cutlery may be useful. An Occupational Therapist can advise further.</p>
Mark making, drawing, writing	<ul style="list-style-type: none"> <li>• Check sitting is symmetrical</li> <li>• Thick pencils, felt tip pens, markers</li> <li>• Dycem non slip matting under paper</li> </ul>	<p>Develop fine motor skills through a range of multi sensory/ messy play activities using both hands.</p>



	<ul style="list-style-type: none"><li>• Blu tack to hold paper still</li><li>• White board markers</li><li>• Mark making using different media</li><li>• Write dance activities</li><li>• Clipboards</li><li>• Magnetic boards with magnetic letters</li><li>• Angled writing slopes</li><li>• Encourage use of affected hand to secure paper</li></ul>	
Toileting and hygiene	<ul style="list-style-type: none"><li>• Encourage independence through a toilet plan that has been agreed with parents.</li><li>• Ensure when hand washing, the affected hand is not neglected.</li></ul>	Discrete supervision and support may be needed.



## Hemiplegia in Primary School

### General classroom tips:

- Encourage use of both hands whenever possible and activities that involve crossing the midline.
- When sitting at a table, ensure symmetrical posture with affected hand on the table- often if a pupil with hemiplegia pulls in their chair they end up sitting at an angle to the table as they only use one hand. This should be corrected and they should sit straight on at the table.
- Feet should be flat on the floor (or footstool) and table should not be too high
- Ensure there is space for the affected arm and plenty of space for the stronger hand (e.g. try not to position a left handed child with hemiplegia next to a right handed pupil)
- If working in an adult led group, the adult is best positioned directly in front of the child.
- When sitting on the carpet, position the child at the front or middle of the group, looking straight ahead.
- Encourage awareness of weaker side through two handed activities.
- Focus on what the child can do to promote a positive attitude.
- Encourage independence- give extra time and do not rush the child.

Possible areas of difficulty	Ideas to try	Consider
Moving Around- poor balance, more likely to fall	<ul style="list-style-type: none"> <li>• Make pupil aware of when areas are busy and how to avoid them.</li> <li>• Choose quiet times when moving around school and allow pupil to go a few minutes early or after rush. (Especially for busy cloakroom break times)</li> <li>• Supervision may be needed over uneven/ rough ground.</li> <li>• Encourage use of handrails for steps- do not rush</li> <li>• Heavy doors may need to be opened- consider use of buddy system</li> <li>• Make sure there is plenty of room between tables for pupil to walk through. Be aware spatial awareness may be affected.</li> <li>• In cloakrooms allocate the child with a peg at the end of the row.</li> </ul>	<p>Balance and co ordination may vary from day to day- particularly when tired or unwell</p> <p>The outside learning environment may need to be risk assessed and children may need adult support to access some equipment.</p> <p>Be aware of potentially slippery floors particularly in bathroom as these are an added hazard.</p> <p>If falls become frequent monitor and try to identify possible causes or trigger times. Seek advice from Specialist Teacher or Physiotherapist if concerned.</p>
Dressing	<ul style="list-style-type: none"> <li>• Break down difficult dressing tasks into achievable steps.</li> <li>• Do not over support- give extra time for child to attempt easier aspects of dressing.</li> <li>• Allow for extra time when changing for P.E. for structured dressing interventions.</li> <li>• If splints are worn, ensure they are put on correctly and all staff have been shown and are confident to do this.</li> <li>• A basket to put clothes in may help with organisational skills</li> </ul>	<p>Clothing can be adapted with Velcro or poppers instead of buttons and laces.</p> <p>Tight fitting clothing will be more difficult to remove than loose clothing.</p> <p>When helping put on a coat or cardigan encourage child to put affected arm in clothes first.</p> <p>Undressing is often easier than dressing.</p> <p>Consider whether pupil can come to school in P.E. clothes and change after.</p>
Eating and Drinking	<ul style="list-style-type: none"> <li>• Help may be needed to open packets.</li> <li>• Pupil may need support to carry tray</li> <li>• Food may need to be cut up.</li> <li>• Dycem non slip matting under the tray or</li> </ul>	<p>Adapted cutlery may be useful. An Occupational Therapist can advise further.</p>



	<p>plate will stop it moving.</p> <ul style="list-style-type: none"> <li>• If child is a messy eater, encourage them to clean mouth etc afterwards using mirror and facecloth.</li> </ul>	
Handwriting and recording	<ul style="list-style-type: none"> <li>• Check sitting is symmetrical</li> <li>• Thick pencils, felt tip pens, markers, pencil grips may be useful.</li> <li>• Dycem non slip matting under paper</li> <li>• Blu tack to hold paper still</li> <li>• White board markers</li> <li>• Mark making using different media</li> <li>• Write dance activities</li> <li>• Clipboards to keep paper still</li> <li>• Magnetic boards with magnetic letters</li> <li>• Angled writing slopes</li> <li>• Encourage use of affected hand to secure paper</li> </ul>	<p>Develop fine motor skills through a range of busy box activities using both hands.</p> <p>Written work may need to be differentiated to reduce amount of recording needed.</p> <p>Alternative methods of recording may need to be considered such as use of ICT, paired work, scribe, dictaphone</p> <p>A handwriting programme that addresses spatial awareness difficulties e.g. Write from the start/ Pegs to Paper may be useful. Specialist teacher can advise.</p>
Toileting and hygiene	<ul style="list-style-type: none"> <li>• Encourage independence through a toilet plan that has been agreed with parents.</li> <li>• Ensure when hand washing, the affected hand is not neglected.</li> </ul>	Discrete supervision and support may be needed.
Attention and concentration may be short	<ul style="list-style-type: none"> <li>• Keep episodes requiring concentrated effort short. Longer, more complicated tasks may have to be broken down into component parts.</li> <li>• Simplify verbal instructions</li> </ul>	Pupils may tire more quickly than their peers as more effort is needed to do routine tasks.
Visual perception and spatial awareness	<ul style="list-style-type: none"> <li>• Give extra time to complete tasks.</li> <li>• Consider photocopying worksheets to reduce writing and save time</li> <li>• Copying off board may be difficult- a personal paper copy of work on the board helps. Consider whether copying from the board is a useful activity.</li> </ul>	Reading and copying skills can be affected by visual perception difficulties.
Independence	<ul style="list-style-type: none"> <li>• Pupils with hemiplegia can learn how to best cope with their individual difficulties if given the opportunities to try. Adult support may be necessary but consider what elements the pupil can do and give them time to attempt more difficult activities before offering support.</li> <li>• If there is something within school the pupil finds particularly difficult or is unable to do independently, seek advice from Specialist teacher or health professional for possible solutions.</li> </ul>	<p>Often extra time and lots of encouragement is the best support. It may be quicker to do things for the pupil but in the longer term it will be more useful if they learn how to do things themselves.</p> <p>Focus on what the child can do rather than what they can't. Self confidence can easily be affected.</p>



## Hemiplegia and P.E.

P.E. activities should be risk assessed to ensure they are appropriate for the pupil. Careful differentiation, modified or in some cases alternative activities may need to be considered. Where you are unsure, consult either Physiotherapist if there is one involved or Specialist Teacher.

Ball skills	<ul style="list-style-type: none"> <li>• Lack of skill in ball activities can be frustrating, and make the child a weak member of team games.</li> <li>• Spatial problems may make it difficult to judge the speed and position of a moving object</li> <li>• Visual difficulties (hemianopia) will affect ball hitting skills- slower or larger balls may help.</li> </ul>	<p>To develop ball skills use different sizes of ball. Begin with large ones which are easier to see and hold, or use beanbags. Progress to smaller balls. Consider using balls that do not roll e.g. spider balls, koosh balls, balloons.</p> <p>Grips for holding bats or racquets are also useful. Bats with larger head will be easier to use.</p> <p>To develop spatial awareness in ball skills, remember that it is easier to catch a bounced ball than one thrown directly, and it is easier to hit a stationary ball than a moving one.</p> <p>Reduce distance ball is thrown in ball games.</p>
Gymnastics	<ul style="list-style-type: none"> <li>• Poor balance and co-ordination may make the child unable to land squarely on both feet when jumping, or to hop or skip properly.</li> <li>• Poor co-ordination and weakness may make climbing dangerous.</li> </ul>	<p>Balance activities are important in the P.E. class, as are ball handling skills, to develop grasp/release and hand/eye co-ordination.</p> <p>Use floor level balance activities or allow pupil to hold onto furniture for support during balances.</p> <p>When climbing, safety aspects are very important. Limit the height that the child should climb. Supervise carefully. Encourage the child to move the weaker foot first, and ensure that the affected hand is gripping as effectively as possible, perhaps at a lower level than the unaffected hand.</p>
Games	<ul style="list-style-type: none"> <li>• The child may have an abnormal gait.</li> <li>• Instructions for games may need to be broken down or simplified.</li> <li>• Team games may be difficult- it is often easier to provide differentiated rules for all players so pupil is not singled out and can participate fully.</li> </ul>	<p>Encourage the child to walk with both heels down, and with steps of even length. Incorporate this into walking and balance games.</p>
Dance	<ul style="list-style-type: none"> <li>• Partner work and speed of dance may be difficult</li> </ul>	<p>Use slower dances and modify some moves</p> <p>Use wrist for linking during partner work if hand holding is difficult</p> <p>Give plenty of verbal cues to help pupils with spatial awareness difficulties</p>