



Pupils with Physical Disabilities

Paralysis



Paralysis



Classroom-based tips (focus on instructional methods)

1. **Inform the pupils about the presence of a colleague with paralysis** (e.g. through project, discussion, parental participation, storytelling, involvement of the pupil himself/herself, and depending on the age of the class), taking care not to stigmatise the pupil or make her/him feel uncomfortable.
2. **Provide activities promoting acceptance, critical thinking, active involvement of all pupils and support in order to avoid marginalisation.** [Reference: <http://www.tandfonline.com/doi/full/10.1080/13603116.2012.717638>]
3. **Ensure that each pupil has a role in class activities.**
4. **Use various teaching methods in order to offer equal chances for participation to those pupils with paralysis.**
5. **Provide a specific set of teaching materials in digital form**, so that pupils with paralysis do not have to carry heavy books in and out of school and the classroom.
6. **Provide copies of teachers' notes or recorded lectures**, as well as digital notes for pupils using technology.
7. **Be understanding with such issues as lateness, absences, shortened school days, fatigue, change in mood, and missed homework due to physical therapy sessions.**
8. **Provide options for tutoring or extra time to make up assignments and complete tasks.**
9. **Differentiate testing and assessment by providing options according to individual needs of a pupil.** These could be extra time or untimed tests, one-on-one evaluation, alternate response mode, and use of a laptop and/or other assistive technology.
10. **Include all types of activities to favour the participation of pupils with paralysis.**
11. **Take into consideration the pupil's physical and communication needs when designing class schedule;** classrooms should be close, to minimise distance walked throughout the day or the time spent at school.
12. **If pupils use wheelchairs, where possible place yourself at their eye level when talking to them.**
13. **The board in the classroom may have to be lowered if the pupil is in a wheelchair.**
14. **Employ accessibility features and/or available assistive technology for providing (physical) access.**

15. **Provide opportunities for the use of assistive technology and alternative communication means** (if used or necessary) for participation in classroom.



School-based practical tips (focus on instructional methods)

Class Divisions / Arrangements

Ensure appropriate adaptations, accommodations and modifications are made **to the instruction and other activities, including availability of assistive technology.**

Community

1. Arrange meetings between the parents and the staff, including other professionals working with the pupils, **such as the physiotherapist, so as to learn as much as possible about the diagnosis, their observations about the pupil's current level of ability and possible needs during the course of the school year. Design a school project in order to increase the level of awareness of the teachers, other pupils and parents about paralysis.**
2. **Find and have available contact details of local/national associations for paralysis, and more specific associations, if existing, for further information and support.**

Curricular Adaptations

Adapt or differentiate learning tasks and other extra-curricular activities **in order to diminish abandonment, including in homework assignments, educational activities, and sports competitions.**

[Reference: <https://www.christopherreeve.org/living-with-paralysis/for-parents/education-for-children-living-with-paralysis-1>]

Discipline

Monitor the safety of the pupil during curricular and extra-curricular activities, during classes, breaks or other types of activities.

Educational Visits / Field Trips / Camps / School Exchanges / Trips Abroad

Adapt or differentiate learning tasks and other extra-curricular activities **in order to diminish abandonment, including in homework assignments, educational activities, and sports competitions.**

[Reference: <https://www.christopherreeve.org/living-with-paralysis/for-parents/education-for-children-living-with-paralysis-1>]

Homework

Adapt or differentiate learning tasks and other extra-curricular activities in order to diminish abandonment, including in homework assignments, educational activities, and sports competitions.

[Reference: <https://www.christopherreeve.org/living-with-paralysis/for-parents/education-for-children-living-with-paralysis-1>]

Parents / Parents' Associations

1. Arrange meetings between the parents and the staff, including other professionals working with the pupils, such as the physiotherapist, so as to learn as much as possible about the diagnosis, their observations about the pupil's current level of ability and possible needs during the course of the school year. Design a school project in order to increase the level of awareness of the teachers, other pupils and parents about paralysis.
2. Involve families in the process of every stage of decision-making for the pupil's education and provide them with enough appropriate information [Reference: <http://patient.info/doctor/disability-in-childhood>]
3. Facilitate family support and confidence in parenting a child with paralysis.
4. For pupils with periodic paralysis, it is extremely important for school staff to be flexible and allow the pupil to adapt his or her behaviour as needed to avoid episodes. [Reference: <http://hkpp.org/school-aged-child-periodic-paralysis>]
5. Work with the parents in terms of the individual pupil's diet. These guidelines are meant to give school personnel some understanding of the general needs of persons with periodic paralysis. [Reference: <http://hkpp.org/school-aged-child-periodic-paralysis>]

Safety

1. **Ensure emergency precautions are in place and staff are properly trained if pupil's breathing or heart rate are affected.**
[Reference: <http://hkpp.org/school-plan-for-student-periodic-paralysis>]
2. **Monitor the pupil for signs of weakness, clumsiness, changes in colour (may become flushed or ashen) and/or shaking;** pupils with paralysis may push themselves beyond safe capacity in order to keep up with their peers.
3. **Provide space for pupil's involuntary movements** (e.g. in case of athetosis) for his/her own and others' safety. [Reference: <http://hkpp.org/school-plan-for-student-periodic-paralysis>]
4. **Provide access and facilities in order to develop inclusive school projects, events and celebrations for all pupils,** providing facilities for those with paralysis to be able to

participate, such as safe conditions, hall accommodation, and monitored traffic in the corridors.

5. Monitor the safety of the pupil during curricular and extra-curricular activities, during classes, breaks or other types of activities.
6. **For pupils with periodic paralysis, it is extremely important for school staff to be flexible and allow the pupil to adapt his or her behaviour as needed to avoid episodes.** [Reference: <http://hkpp.org/school-aged-child-periodic-paralysis>]
7. **Work with the parents in terms of the individual pupil's diet.** These guidelines are meant to give school personnel some understanding of the general needs of persons with periodic paralysis. [Reference: <http://hkpp.org/school-aged-child-periodic-paralysis>].
8. **Make sure that, in case of emergency, the evacuation plan allows pupils with paralysis to safely get out of the building.**

School Breaks

Monitor the safety of the pupil during curricular and extra-curricular activities, during classes, breaks or other types of activities.

School Celebrations / Events / Activities

Provide access and facilities in order to develop inclusive school projects, events and celebrations for all pupils, providing facilities for those with paralysis to be able to participate, such as safe conditions, hall accommodation, and monitored traffic in the corridors.

Pupil Support

1. **Allow time for mobility for pupils who need to change rooms for classes in order to move safely and on time to their next class.** If needed, a classmate, friend or helper may carry books and other materials between classes; assign roles or create groups in class with the participation of the pupil with paralysis. [Reference: <http://hkpp.org/school-plan-for-student-periodic-paralysis>]
2. Arrange meetings between the parents and the staff, including other professionals working with the pupils, **such as the physiotherapist, so as to learn as much as possible about the diagnosis, their observations about the pupil's current level of ability and possible needs during the course of the school year. Design a school project in order to increase the level of awareness of the teachers, other pupils and parents about paralysis.**
3. **Find and have available contact details of local/national associations for paralysis, and more specific associations, if existing, for further information and support.**

4. **Consult with the pupil's physiotherapist, speech and language therapist and occupational therapist** for advice on how to best meet the pupil's individual seating, positioning in the classroom, eating and communication needs.

Teacher Professional Development

Provide training for teachers who have pupils with paralysis in their classrooms.

Technology

Ensure appropriate adaptations, accommodations and modifications are made to the instruction and other activities, including availability of assistive technology.

Timetabling

1. **Allow time for mobility for pupils who need to change rooms for classes in order to move safely and on time to their next class.** If needed, a classmate, friend or helper may carry books and other materials between classes; assign roles or create groups in class with the participation of the pupil with paralysis.

[Reference: <http://hkpp.org/school-plan-for-student-periodic-paralysis>]

2. **For pupils with periodic paralysis, it is extremely important for school staff to be flexible** and allow the pupil to adapt his or her behaviour as needed to avoid episodes.

[Reference: <http://hkpp.org/school-aged-child-periodic-paralysis>]

Supportive Literature

Definition: Paralysis is defined as complete loss of strength in an affected limb or muscle group

[Reference: <http://medical-dictionary.thefreedictionary.com/juvenile+paralysis+agitans+%28of+Hunt%29>].

Paralysis is also defined as the loss of muscle function in a part of the body. It can be localised or generalised, partial or complete, temporary or permanent. [Reference: <http://www.healthline.com>]

Description

The chain of nerve cells that runs from the brain through the spinal cord out to the muscles is called the motor pathway. Normal muscle function requires intact connections all along this motor pathway. Damage at any point reduces the brain's ability to control the muscle's movements. This reduced efficiency causes weakness, also called paresis. Complete loss of communication prevents any willed movement at all. This lack of control is called paralysis. Certain inherited abnormalities in muscles cause periodic paralysis in which the weakness comes and goes.

The line between weakness and paralysis is not absolute. A condition causing weakness may progress to paralysis. On the other hand, strength may be restored to a paralysed limb. Nerve regeneration or regrowth is one way in which strength can return to a paralysed muscle. Paralysis almost always causes a change in muscle tone. Paralysed muscle may be flacid, flabby, and without

appreciable tone, or it may be spastic, tight, and with abnormally high tone that increases when the muscle is moved. Paralysis may affect an individual muscle, but it usually affects an entire are of the body.

The distribution of weakness is an important clue to the location of the nerve damage that is causing the paralysis.

Words describing the distribution of paralysis use the suffix "-plegia," from the Greek word for "stroke." The types of paralysis are classified by area of the body affected:

- monoplegia, affecting only one limb
- diplegia, affecting the same area of the body on both sides of the body (both arms, for example, or both sides of the face)
- hemiplegia, affecting one side of the body
- paraplegia, affecting both legs and the trunk
- quadriplegia, affecting all four limbs and the trunk

The loss of function caused by long-term paralysis can be treated through a comprehensive rehabilitation <http://medical-dictionary.thefreedictionary.com/rehabilitation> program.

Rehabilitation includes:

- **Physical therapy**
The physical therapist focuses on mobility. Physical therapy helps develop strategies to compensate for paralysis by using those muscles that still have normal function, to maintain and build strength and control in the affected muscles, and to maintain range of motion in the affected limbs
- **Occupational therapy**
The occupational therapist focuses on daily activities such as eating and bathing. Occupational therapy develops special tools and techniques that enable self-care, and suggests ways to modify the home and workplace so that a patient with impairment may lead a normal life.
- **Other therapies**
The nature of the impairment may mean that the patient needs the services of a respiratory therapist, vocational rehabilitation counsellor, social worker, speech-language pathologist, nutritionist, special education teacher, recreation therapist, or clinical psychologist.

Websites and EU Reports

European Accessibility Act 2015 <http://ec.europa.eu/social/main.jsp?catId=1202>

The EU's strategic framework for European cooperation in education and training (ET 2020) - http://ec.europa.eu/education/policy/strategic-framework_en
<http://www.atia.org/at-resources/what-is-at>
<http://medical-dictionary.thefreedictionary.com/juvenile+paralysis+agitans+%28of+Hunt%29>
<http://hkpp.org/school-aged-child-periodic-paralysis>
<http://hkpp.org/school-plan-for-student-periodic-paralysis>
<http://patient.info/doctor/disability-in-childhood>

<https://www.christopherreeve.org/living-with-paralysis/for-parents/education-for-children-living-with-paralysis-1>

https://www.google.ro/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0ahUKEwi_jpemrabRAhUWOIAKHdjXDkcQFghNMAQ&url=https%3A%2F%2Fwww.unicef.org%2Fdisabilities%2Ffiles%2FFacsheet_A5_Web_NEW.pdf&usg=AFQjCNG6AIMybr-vlC1xABuEUUtZT42F5Q&bvm=bv.142059868,d.ZWM&cad=rjt

<http://isabellelorelai.wordpress.com/tag/asociatia-copii-suflete-sperante>

Asociația umanitară Marta Maria, <http://www.martamaria.ro/>

Asociația Vreau și eu să merg, <http://www.vreausieusamerg.ro/>

Asociația Copii Suflete Speranțe' <http://isabellelorelai.wordpress.com/tag/asociatia-copii-suflete-sperante>

References

Engin A, et al, (2006), Tick paralysis with atypical presentation: isolated, reversible involvement of the upper trunk of brachial plexus, *Emergency Medical Journal*, 23(7): e42.

Batshaw, M., et al, (2012), *Children with disabilities*, Paul H. Brookes Pub.

Bouck C. E., (2016), *Assistive technology*, Sage Publications