



## **Teaching Students with Physical Impairments**

Disability Resource Centre  
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Physical impairments can stem from a number of causes and may be permanent, intermittent or temporary.

People can be affected in many ways, from the most obvious, such as an impairment of limb function, which may necessitate the use of aids such as wheelchairs, to more subtle ways, as in the case of a head injury. This may present as loss of fine motor control, balance or concentration. People with conditions such as cerebral palsy may have associated impairments of speech and vision. In addition, conditions such as ME may cause the student to use crutches or a wheelchair intermittently. Remember to discuss directly with the student his/her individual requirements.

## **Communication**

A person who uses a wheelchair will usually be doing so because they are either unable to walk or stand, or because they can only walk for very short distances, or because they can only stand for short periods of time. Therefore, wheelchair users will be either full-time or part-time wheelchair users. However, whenever a person is using their wheelchair, assuming that you don't know them, there are some important and relevant points to consider when communicating with them.

- Refrain from using the term 'wheelchair bound' since it is (a) hardly true and (b) offensive. A more positive term is 'wheelchair user', since the use of a wheelchair allows many disabled people to enjoy greater mobility and more opportunities.
- Try to avoid approaching the wheelchair user from behind. Do not slap your hands in greeting on their shoulders and/or shout their name in greeting when they cannot see you.

- Don't use the wheelchair user's wheelchair as apparatus or furniture, by either standing on the back of the wheelchair or on any other parts.
- Don't invade a wheelchair user's privacy. It is surprising how many people feel that it is acceptable to lean over the wheelchair in such a way that it invades the owner's private space.
- If the person is in a wheelchair, try to place yourself on the same eye level for comfortable eye contact, eg seat yourself nearby.
- In an attempt to get down to the wheelchair user's level, don't stretch your arms along the wheelchair arms in such a way that you end up 'eye balling' the wheelchair user! It is extremely disconcerting.
- If you want to offer any assistance or help to a wheelchair user, please remember to ask them first! Whilst this may seem obvious – it isn't to a lot of people. Unfortunately the story isn't apocryphal about the person who saw the wheelchair user pushing themselves along the road near to a crossing. Without asking, they grabbed the wheelchair from behind, pushed it across the main road and ran off smiling at their good deed for the day, leaving the wheelchair user and their young son separated by the road.

## **Lectures**

### **BEFORE term begins:**

- If required, ensure lecture theatres are wheelchair accessible and/or have appropriate seating, e.g. a chair with arms.
- Enquire if facilities such as libraries, computer rooms within the department are also accessible to the student.

- Ensure students are aware of emergency and evacuation procedures for the buildings they are using

### **DURING term:**

- Be aware that teaching strategies useful for students with mobility impairments may be useful for everyone.
- Try to understand and act upon the requirements of a student with a mobility impairment; this is one of the most supportive strategies you can adopt.
- **Ask** if the student requires assistance - do not presume that help is needed, even if it appears to you that the person is having difficulty. If help is **requested**, ask how best you can assist. Be alert to offer help unobtrusively e.g. by opening doors or carrying items.
- Leave equipment where the student has placed it as it has been positioned where it will be easiest to retrieve.
- Ensure corridors are clear and that seating within rooms allows sufficient space for manoeuvring wheelchairs.
- Be understanding of lateness related to transport or issues with personal care assistants. The student may be coming from another lecture and if so, he/she would usually take longer to do so than other students.
- If a personal assistant is present ensure all communication is directed to the person with the disability and not through the third party (unless requested by the disabled person).
- If the student has a speech impairment this may make communication difficult. Do not interrupt or give the impression of understanding if you haven't. Being asked to repeat something several times is likely to be a familiar experience for the individual. If there is still doubt about what is being said, clarify a statement by repeating it or asking the student to write it down.

- A physical impairment may not always be visible (such as Rheumatoid Arthritis) and may include students who experience severe pain after a prolonged amount of time writing for example and the student might require a note-taker during lectures. These are organized via the NMA scheme run by the DRC.

### **Practicals:**

It is important to consider what adjustments can be made in order for the student to maximally gain from practical sessions. It should not be assumed that the mobility impaired student will not be able to perform the experiments, often all the student may require would be a lower work-bench and a demonstrator to ensure all the required equipment and chemicals be placed within reach.

- Communicate with the student the nature of the practicals that are set and what assistance the student may need for them. This should ideally be done well before the actual practical as it will allow the student to organise assistance if needed.
- Workstations for individual students with disabilities should be arranged to be suitable for the person using them and the task being performed. This may involve altering the height of benches, fume cupboards or desks to allow a person in a wheelchair to use them.
- Ensure there is an emergency evacuation plan for the student and the student is aware of it. Also the student should be able to access emergency eye-wash basins.
- If demonstration using microscopes are part of the practical, consider the option of setting up a live video feed onto a projector rather than having individual students observe the image. This allows the mobility impaired student to have the same experience as the other students of the practical.

## Supervisions

- If supervisions are being held at a college other than the students', make sure it is accessible to the student. It may be prudent to ask the student if they prefer having supervisions at the department or at college as transport to other colleges might be an issue.
- Don't single out students with a mobility impairment or discuss their requirements in front of a group.
- All mobility impairments increase the time and effort which students must expend in activities of daily living, as well as in activities related to their studies. This is especially true in students with ME and other chronic fatigue syndromes. **Be aware of this** if a student is making requests such as extra time for the completion of supervision work.
- In instances where it may be difficult or painful for the student to hand-write essays, the student should be allowed to submit supervision work in electronic form.
- When speaking to the student, use the same volume and tone of voice and the same eye contact as you would with any other person.

## Examinations

Some students who have physical disabilities may require alternative examination arrangements, such as the provision of extra reading and/or writing time or the use of a scribe. Other students may simply need to sit their examinations in an easily accessible venue, often this may be in their colleges itself. Students should contact their Senior Tutors and Academic Offices in their colleges to arrange this.

## **Case study: Case study:**

### **- Chris Swift**

Agricultural Engineering with Marketing & Management -  
Harper Adams University,

### **- Geoffrey Wakeham**

Engineering Course Manager (1989-2003),  
Harper Adams University College

### **- Sarah Parsons**

Learning Support Tutor for Mathematics,  
Harper Adams University College

## **Background:**

Chris Swift joined Harper Adams in 1994 as an able bodied BEng Agricultural Engineering student. During his first year he suffered a debilitating illness, called Guillain-Barré syndrome, which forced him to postpone his studies. The College maintained links with Chris and by September 1998 he had recovered sufficiently to return to Harper Adams as a first year BSc Agricultural Engineering with Marketing and Management student and wheelchair user with little or no use of his limbs.

Chris graduated with a 1st Class Honours degree in June 2002 and has continued his studies in Engineering at Cranfield University; where he first completed an MSc and is currently studying for an engineering doctorate.

## **Chris' Reflections:**

When I became ill in March 1995 whilst studying at Harper Adams, I had little idea what the future would hold in terms of physical recovery and also how I would go about rebuilding my life. Although it may seem trivial, the promise of a place being kept open for me to return to provided a focus for my journey through rehabilitation.

### *Early Experiences*

On arrival back at Harper Adams in September 1998 I was interested to see how the other guys on the course would view a wheelchair user. When I was 19 I'm sure I would have been uncertain or even wary of such an "unknown quantity". Fortunately, I made some great friends, many of whom I am still in contact with today. It's largely thanks to friends and acquaintances that many of the obstacles encountered during my studies were overcome.

For example, I originally used my personal assistant (PA) to act as note-taker during lectures. Although this was moderately successful, a much better solution came from simply copying the notes of a friend on the course who had a much better understanding of the subject matter and knew what was important to include. Solving problems of physical accessibility of buildings proved to be an iterative process. Despite preparation of my living accommodation with automatic doors and equipment such as an electric bed and hoist, it was impossible to plan all aspects of access to all campus facilities.

### *Harper's success*

The key to Harper's success with regard to accessibility was in being flexible enough to deal swiftly with any problems that I discovered, as they arose. Harper also organised placement periods in such a way that I could continue to live on the university campus. This was incredibly important in that it would have been nearly impossible to find rented, adapted, accessible accommodation for a six month placement period elsewhere in the country. Such a move would also have an impact on everything from which agency would supply my PAs to which health authority would be responsible for servicing my wheelchair!

### **Harper Adams University College Perspective:**

Whilst the college is on a single, relatively level, site it is divided into four by two intersecting public roads. In 1998, When Chris returned to college, the buildings were generally pre-1960 and not adapted for wheel chair access. The nature of the courses (historically it was an agricultural college), the physical environment, the placement employment and the social life based around field sports discouraged applicants. Prior to his return Chris visited the college and discussed both the best option academically and also his physical requirements.

Chris provided us with a wish list of facilities and access adjustments and when he returned he was provided with an adapted room with special showering facilities and powered doors. His PA had a room next door. Some improvements to access and ease of manoeuvring were carried out on his major routes and automatic doors and ramps were subsequently installed in the engineering department.

#### *Examinations*

Although Chris arrived with voice activated computer equipment several adjustments had to be made to facilitate participation in classes and examinations. Initially his PA acted as note-taker but was soon replaced by a fellow student, funded by Kent LEA. Chris dictated examinations answers to an engineering technician who was familiar with the terminology if not the level of understanding required.

#### *Practicals and placements*

Chris participated in practicals mainly by giving instructions to others for the physical tasks. The compulsory employment placement created a further obstacle as none of the companies we approached felt

they could provide a worthwhile experience. To solve this problem Chris was employed by the college.

During his first six months in the computer department Chris developed the web-site [www.offroadmachine.com](http://www.offroadmachine.com) which is still in use. His second six months was spent in our engineering workshops, where he supervised the design and adaptation of a small off road vehicle for use by disabled drivers, funded by the vehicle manufacturer. He was awarded 'A' grades for both placements.

### **Lessons Learned:**

Following the adjustments made to the physical facilities the college is now in a position to take further disabled students. There are currently several students with limited mobility studying at the college. Harper Adams is part-way through a project to implement SENDA requirements, called HASDAS (Harper Adams Support for Disabled Applicants and Students) which will result in an integrated service provision for applicants and students with a range of disabilities and specific learning difficulties. Various policies have been developed. One outcome is that the college prospectus contains mention of the provision for disabled students.

Funding was also obtained in recent years to improve access across the site (e.g. to install automatic doors and lifts) and this process is ongoing. Generally the teaching and administrative staff worked very well together to accommodate Chris' needs. The engineering and administrative staff who knew him were receptive to his return, however there were initially wider concerns about how his studies and safety could be managed. The process of implementing support, e.g. from local education authority funding requires time and effort and can only be done according to each individual's situation. The overall experience was vastly beneficial, now the college is much

better prepared to consider and anticipate requirements of special needs students.

## **Resources Available**

### **- Disability Resource Centre**

Disability advisers help students organise the help they need due to their disability. This can include note-takers for lectures via the Non-medical Assistance Scheme (NMA). There is also a library of electronic equipment such as mini-disc recorders, software etc. available to students. In addition, assistants to help get books from libraries etc. can also be arranged.

### **- Disabled Students' Allowances**

Awarded by the Local Authority (previously the LEA) to home students, the DSA is designed to cover any of the additional costs of studying in Higher Education by a disabled person. The allowance pays for any equipment or human help that is needed in order for the individual to study effectively. In the case of students who are mobility impaired, this may be in the form of note-takers and other non-medical assistance or electronic equipment, software such as laptops, mini-disc recorders etc.

### **- College Tutors**

College tutors can provide support for the student in a number of ways such as helping make arrangements for extra time during examinations. They can also put the student in contact with the Disability Liaison Officers in the relevant department ensuring that the arrangements have been made for the student.

## Summary

For students with mobility impairments, the following checklist may be used to ensure appropriate arrangements are being made (checklist from *The needs of disabled students in further and higher education* produced by SKILL)

- Physically accessible classrooms, study spaces, toilets, catering and leisure facilities and telephones
- Personal assistants or mobility helpers
- Adapted furniture for studying at home or college
- A powered wheelchair and facilities for charging it
- An adapted computer (eg for switch operation or voice input)
- A high resolution flatbed scanner
- Typing or transcription services
- A tape recorder for taping lectures, notes, etc
- Scribes, amanuenses or notetakers
- Support for practical and field work
- Particular travel arrangements
- A parking space on campus
- Timetable planning to ensure accessibility and avoid long distances
- Additional time at mealtimes for medical needs
- A rest room on campus
- Well ventilated classrooms if heat leads to discomfort
- Accessible accommodation, possibly on campus, if studying away from home

## Further Information:

- A general overview of teaching students with disabilities (including mobility impairment) can be found at: <http://www.open.ac.uk/inclusiveteaching/> and: [http://www.engsc.ac.uk/downloads/resources/disguid\\_e2ed.pdf](http://www.engsc.ac.uk/downloads/resources/disguid_e2ed.pdf)
- Information sheets on teaching students with various impairments: <http://www.nottingham.ac.uk/disability/ITS%20leaflets.htm>
- Guidelines by the Royal Society of Chemistry for the safety of laboratory workers with disabilities: <http://www.rsc.org/pdf/ehsc/disabled.pdf>
- A source of adapted technologies for students with disabilities (including mobility impaired students) is available at: [www.abilitynet.org.uk](http://www.abilitynet.org.uk) and: [www.techdis.ac.uk](http://www.techdis.ac.uk)

## Contact information

### Disability Resource Centre

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## **Leaflets in this series**

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