



*Duncan Abbott
explains how to
undertake a personal
risk assessment for
workers with a
disabling condition*

Running the risk

Report Digital: John Harris

THERE IS no existing tool to help health and safety professionals carry out risk assessments for disabled workers. However, there is a legal and moral duty for employers to ensure the wellbeing and safety of disabled workers. By law, an employer must make reasonable adjustments to enable the disabled person to work safely and show that what they have done is “reasonably practicable”. Here we look at some of the factors a health and safety professional should consider and discuss 3 examples of how to make reasonable adjustments.

Legal advice

First off, there are 3 recent legal cases that the health and safety professional should be aware of. In the case of *Lane Group plc and another v Farmiloe*, it was found that the employer had tried to accommodate Mr Farmiloe but due to his condition he was unable to wear the necessary personal protective equipment (PPE). As no alternative employment was available, Mr Farmiloe was dismissed. The opinion of the Employment Appeal Tribunal is that when an employee cannot comply with the PPE Regulations, the employer is in breach of his common law duty if he continues to employ the individual in breach of those Regulations. The employer will therefore be

obliged to dismiss him or her if all other alternatives have been explored.

In the case of *Archibald vs Fife Council*, the House of Lords unanimously ruled that there is a duty on employers to make reasonable adjustments for disabled people if they become unable to carry out the job they are in due to their disability. This duty includes considering whether it is reasonable to transfer the disabled person to another vacant post, even if that post is at a higher grade.

Finally, a teacher who faced discrimination at work from her employer, Nottingham County Council, because of sight loss has had her case upheld on appeal. The case of *Meikle v Nottinghamshire County Council* sets the precedent that constructive dismissal is covered by the Disability Discrimination Act 1995 (DDA). Constructive dismissal arises when the employer is directly responsible for behaving in a way that entitles an employee to resign. The court found that the school's failure to make improvements to assist the teacher with her sight loss were a failure to make reasonable adjustments as outlined in the DDA. As a result, the teacher was discriminated against because of her disability.

These cases find that every attempt must be made to make a reasonable adjustment to accommodate workers, but not at

Case study 1: seasonal affective disorder

Lorraine has a hearing impairment and upper limb condition, plus is affected by seasonal affective disorder (SAD). SAD is normally resolved by using a light box that provides full spectrum light. After exposure to this light, the symptoms associated with the condition subside. However, Lorraine had been supplied with a large light box that was found to cause discomfort to co-workers due to light spillage.

To resolve this issue, a new model was obtained that angled the light directly into the retina, light spill was greatly reduced and further conflict with colleagues was avoided. This highlights a very important point: it is essential that co-workers are consulted before any new equipment or changes in working practice are introduced.

Lorraine could not type for more than 5 minutes before suffering pain in the upper limbs. The condition was diagnosed by a consultant as RSI. Voice activated software was recommended with an amplified headset that allowed it to be used for dictation and speaking on the phone, plus accommodated her hearing impairment. A chair with a raised pad in the upper back was provided to give support between the shoulder blades and stability to the spine. Lorraine found that this reduced the muscular strain in her upper back and her discomfort when seated.

There are many options available to assist workers who are hearing impaired or suffer from upper limb pain. SAD is reasonably straightforward to deal with but the potential impact on colleagues needs to be assessed and avoided. It must also be remembered that much technology is abandoned due to lack of training and frustration, or because disabled workers feel alienated from colleagues as they have been made to appear different or their adaptations are a nuisance to others. These are factors that result from a poor risk assessment or when the impact on others has not been considered. The risk assessor must remember that the employer has a duty of care to other team members as well as to the disabled worker.

the expense of health and safety legislation. For example, you should ensure that the inability of drivers with neck injuries to perform certain manoeuvres does not place them in detriment to DVLA rules. In other words, check what other legislation says so that you are able to justify any decision you make over why you did or did not make a reasonable adjustment.

Separate assessments

A generic risk assessment may satisfy health and safety legislation but might not pick up the DDA requirement to make reasonable adjustments. Thus a reasonable adjustment is not made and the disabled worker is unfairly discriminated against. However, this need not be the case — health and safety legislation requires pregnant females to have a separate risk assessment so why not risk assess those with a disability separately as well?

The first step in a risk assessment is to establish the worker's medical condition and how this impacts on his or her ability to function. If this information can be acquired some days before a meeting with the worker, it will allow the health and safety manager time to look up the condition, understand the rudiments and its impact. The health and safety manager will then have an understanding of some of the likely challenges the worker is likely to face. Some disabilities are straightforward, such as lower back pain, whiplash and, in some circumstances, arthritis. Equally, these conditions can be affected by the presence of other disabilities that can make recommendations more difficult to achieve.

Lower back pain can result from collapsed discs squashing the nerve, muscle spasms, hydrated discs, a rotated pelvis, hip displacement, tight hamstrings and so on. Recommendations for lower back pain — such as keeping symmetry of posture and avoiding forward postures — may share a similarity with workstation organisation. However, the provision of a chair would ultimately be different as there are varying combinations and adaptations for each dis-

ability. Providing a chair just because it is described as ergonomic is not a reasonable adjustment nor does it make economic sense to provide any type of chair when a specific chair would go a long way towards reducing discomfort and stabilising the condition. For example, providing a chair fitted with passive motion achieved through an inflate–deflate mechanism has been found to be very effective in the reduction of back spasms. This chair is not the type you would buy from your local supplier though so access to expert knowledge is essential if costly errors are to be avoided.

Practical solutions

To carry out a risk assessment for a disabled worker, a health and safety manager should be prepared to investigate and spend time resolving the issues that face the worker. In most cases a solution exists or can be found, but with the vast array of products on the market, it can be a daunting experience. As the case studies show, successful workplace accommodations can be achieved if adequate risk assessments are undertaken.

A successful investigation should consider procedures, equipment and the characteristics of the task. If force and repetition are of particular concern, for example, consider whether the task can be mechanised or automated. If tools and handles are identified as a concern, they can be redesigned. Impact loading to the worker can be minimised by incorporating damping (absorbing) devices and the weight of the tool could be decreased by using lighter materials or by supporting it, for instance.

Tools should be selected to match the worker's capacities if the risk that the disabled worker faces is to be reduced. Appropriate work surfaces such as height adjustable tables can also help to minimise deviated wrist postures and avoid the need to stoop or stretch for materials.

Tool selection is of critical importance for user safety, comfort and health. However, even the best tool on the market will not transform a poorly designed workstation

into a safe and comfortable one. If the workplace design does not meet the worker's physical needs, it can create risk factors for discomfort, aches and pains, fatigue and eventually musculoskeletal disorders. However, a well-designed workplace, offering the opportunity to choose from and alternate between a variety of well-balanced working positions, allows work to be carried out safely and injury-free.

For complicated assessments, specifically those of multiple impairment, the help of an ergonomist should be sought to ensure that all relevant aspects are fully considered. Depending on the disability, these might include:

- physiological data — range of limb movement, strength, vision and hearing
- psychological data — cognitive, reaction time and memory
- anthropometric data — the size and shape ranges of the worker.

Aspects of the built environment should also be considered. These should include the physical aspects of design (such as stairs, ramps and accessibility), hygrothermal conditions (cold, damp and heat) and security / sensory aspects (acoustics, lighting, comfort, communication systems, signage and navigation).

Fatigue or lack of stamina may be a cause of error if the worker's condition means that he or she can no longer cope with the task's demands. For example, an upper or lower extremity disorder may mean the worker cannot keep up with the speed of sorting parts on a paced assembly line. This may be resolved by finding the worker's limit, then suggesting job rotation to allow muscle recuperation. Rotation of tasks can also stimulate interest, plus reduce the boredom and fatigue that can arise from undertaking one type of task continuously. Some employers have found that job rotation leads to improvements in quality and productivity as well as helping injured and older employees return to work.

Training and follow up

Disabled workers need to be kept up to date to ensure that their skills allow them to operate new equipment. They must also be made aware of changes to procedures and given refresher training in relation to carrying out certain tasks, especially where risk is perceived as a key issue. If the needs of the disabled worker are forgotten or not known, then there will be serious consequences for both the employer and the employee in terms of lost productivity and an increased risk of occupational ill health.

In order to minimise risk factors that may contribute to error, guidelines need to be drafted to present to management. If the type of error and condition is known, and a task analysis has been carried out, then it is practical to make recommenda-

Case study 2: hearing impairment

Paul suffers from a severe hearing impairment and was taken on as a material handler by his employer. Not realising the limitation of his hearing, the employer was concerned about Paul's safety when working around or operating forklift trucks and other heavy equipment.

A number of solutions were implemented. A path of travel for forklifts, vehicles and heavy equipment was created using tape and paint. All drivers were told that they must stop at intersections. Flashing lights and mirrors were installed on the forklift, plus mirrors were placed around the work environment. Paul was asked to wear a vest to alert others to his hearing loss and was given a vibrating pager that could be activated by another one-touch pager installed on the forklift. This way Paul could be alerted to the danger. A CCTV camera was installed on the forklift to enhance the workers' ability to visually assess their environment.

It is essential that management and supervisors participate in this type of workplace adaptation in order to enforce rules, in particular for stopping at intersections and for ensuring the worker wears a vest and carries a pager. If accidents are to be avoided and adaptations are to succeed, then clear communication is required. This case demonstrates that health and safety concerns can be overcome when employing disabled workers.

tions that are based on the ergonomic workplace investigation.

When a workplace accommodation has been implemented, it is important to follow the effects of changes in the workplace on the health and wellbeing of the disabled worker. This is because the aim of the changes in the organisation is linked primarily to the productivity of the workers. If the accommodation is to succeed, then management must both monitor and review the changes. This can be achieved by asking the worker to fill out a self-report questionnaire on a regular basis. For injury prevention to the disabled or older worker, a better match between job demands and worker capabilities is required. For those unskilled in this area, the help of a skilled ergonomist will help them understand when, how and why most injuries occur in the workplace.

The health and safety manager must fully understand the issues relating to workplace accommodation for disabled workers and be prepared to search for examples of good practice. For example, they must:

- understand the analytical process to identifying problem areas — ergonomic tools, task analysis, interviews and body maps can be used, for example
- understand how to identify working solutions for successful outcomes —

search out examples of best practice, consult with disabled groups, undertake Internet searches or consult an ergonomist, for example

- understand how to identify strategies to prevent risk of injury and remove barriers in the workplace for disabled and rehabilitated workers — consult with disabled workers and carry out an individual risk assessment.

Ultimately, successful workplace accommodations are those that are effective. The solution should enable the individual with the disability to do his or her job productively and safely. An effective accommodation does not substitute for the individual but enables the individual to use his or her own abilities.

The solution should either have no effect on co-workers, customers and other aspects of the business, or have a positive effect in improving productivity and / or safety. It should also be able to be implemented within a reasonable time frame and be flexible enough to remain effective throughout the employee's service. Finally, maintenance, as well as modifications necessary due to business or technology changes, should be able to be readily accomplished.

Case study 3: occupational musculoskeletal disorders (MSDs)

Sue is employed as a process worker in a poultry processing plant. As part of her job, she has to make many repetitive and forceful movements, sometimes making the same cutting motion 10 000 to 15 000 times a shift.

Sue suffered from pain in the upper limbs and the condition was made worse when her manager mistakenly thought that placing her in a different area, which had a vacancy, would help her condition. This was a mistake as the area had a very high vacancy list for a reason — most people were either on sick leave or had left the company. This failure to carry out a risk assessment led to Sue's condition deteriorating further.

When a risk assessment was undertaken, Sue was asked to show on a body map the location and severity of her pain. The work area was investigated and postures examined against the body map. Finally the angle of the wrist and the forces acting on it were measured.

Through minor adjustments, the angle of attack on the knife was changed, which reduced the force that acted on the wrist. A slightly smaller handle was also introduced along with a pair of ergonomic scissors that required less effort to cut with. Anti-fatigue matting was introduced to reduce the static loading that occurs when undertaking standing work for long periods. In addition, Sue started a course of physiotherapy treatment and undertook daily exercises.

A meeting was held with Sue's manager and supervisor to discuss the changes. It was agreed that Sue and other workers should all be monitored for musculoskeletal disorders (MSDs) and a reporting procedure was put into place. At a follow up assessment, Sue reported that her condition was showing signs of improvement and that she was happy with the changes undertaken at work.

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