

# Analysis of case studies on working with chronic musculoskeletal disorders

Report

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## Executive summary

### Introduction

This case analysis is part of a larger project on working with chronic musculoskeletal disorders (MSDs) that includes a review with guidance and examples and articles. It presents a case analysis of people who either returned to work or stayed at work with a chronic MSD.

MSDs are the most widespread global health issue affecting the workforce and, in the context of this report, are defined as 'those MSDs that last for 12 weeks or more, including chronic back pain or chronic upper limb disorders, as well as rheumatic diseases, degenerative conditions such as osteoarthritis or osteoporosis and non-specific pain syndromes categorised as chronic'.

The aim of this study was to examine the journey of either returning to work or staying at work with a chronic MSD.

### Methods

Participants were recruited who had returned to work or stayed at work with a chronic MSD.

Following completion of a pre-interview questionnaire, eight participants took part in a semi-structured interview.

Data were collated and a comparative analysis was carried out to identify good practice in managing return to work or worker retention with chronic MSDs. The analysis was carried out using the biopsychosocial model as a framework in which to consider good practice and examine the physical, psychological and social factors influencing retention at work. Standard data protection and consent procedures were followed.

### Results

The eight participants included:

1. a shop worker with chondromalacia, assisted by simple accommodations and supportive colleagues;
2. an ICT worker with knee osteoarthritis, assisted by accommodations and task changes;
3. a university lecturer with osteoporosis, assisted by accommodations and self-management;
4. a researcher with upper limb problems, assisted by early intervention and accommodations;
5. a receptionist with bone fractures due to osteopenia returning to work;
6. a podiatrist with neck disc herniation, assisted by task changes;
7. a project manager with piriformis syndrome, assisted by workplace stretching and other accommodations to enable return to work;
8. a police officer with multiple chronic MSDs (rib costochondritis, sciatica, finger pain), assisted by job role changes and equipment accommodations.

The majority of the participants were female (six out of eight) and worked in sedentary or static roles. All the participants had access to return-to-work programmes, but the majority did not take sick leave.

### ***Good practices from the cases***

The following themes and sub-themes were identified in the cases.

#### ▪ **Biophysical**

Physical tasks are those that include body force or body movement. Workplace changes included the removal of physical tasks or help from colleagues when it was required. Having access to space in which to exercise and stretch was also found to be valuable, and a job role change also helped retain two workers at work.

A number of different tools and items of equipment were implemented, mostly through the use of display screen equipment (DSE) assessments, which enabled an adapted keyboard or an adapted mouse to

be used, more adjustability in seating and the use of sit–stand workstations. Other simple additions included cushions or stick-stools to enable comfort to be maintained.

Commuting to work could also be problematic, so changing working hours so that a worker did not have to travel during rush hour was helpful as was providing more support for those involved in international travel, such as selecting an aisle seat (for ease of movement) and encouraging the use of blow-up cushions while travelling.

Physical activity and stretching exercises were also seen as helpful in the cases.

#### ▪ **Social/organisational**

A number of different routes to enabling flexibility in employment were found to support workers with chronic MSDs. Examples given included starting work later, rearranging shifts around medical appointments and working at home if symptoms were a problem.

The majority of the workers in the analysis stayed at work, but all had access to return-to-work programmes. What was seen as important was the support workers received from health professionals and colleagues during their time away and their return to work.

Examples of changes made to the work process included two cases in which job roles were changed to remove exposure to physical hazards; the removal of or support being provided for manual handling tasks; and self-management of screen time.

Taking a multidisciplinary approach for those with chronic MSDs was helpful in several cases. This included healthcare professionals working with human resources (HR), line managers, ergonomists and the workers themselves to find the best solutions.

#### ▪ **Psychological/individual**

The cases identified that line managers and their support have a key role in enabling worker retention. Furthermore, support from colleagues was also important in both informal and formal contexts (e.g. meeting for coffee and return-to-work meetings). Being able to have clear and open communication is also important to enable a successful return to work.

Some of the workers sought advice from authoritative sources about their health symptoms, and they found this helpful. Having control over the timing and planning of the return-to-work process was also seen as important by the workers.

### **Examples of factors that supported retention at work**

#### *Physical workplace changes — tasks that require bodily force or new equipment/tools*

- removal or help with lifting and handling;
- passing tasks on to others, such as data entry work;
- the provision of sit–stand desks to allow posture changes;
- having access to a restroom to carry out stretches;
- technological interventions, adapted technology and voice recognition software (VRS);
- testing interventions and taking a trial and error approach;
- assessing interventions to ensure no new risks are introduced;
- use of teleworking or not travelling during rush hour periods;
- careful planning and booking of international travel.

#### *Social/organisational changes*

- changing working hours to fit around appointments;
- ensuring the employer understands the restrictions on the worker and has the required conversations;
- a phased return to work worked out with the line manager and other stakeholders;
- a multidisciplinary approach, including health professionals, occupational health professionals, ergonomists, HR, line managers and the worker.

*Psychological/individual changes*

- line manager support;
- support from colleagues;
- open communication, while the worker is on leave and during the return phase;
- the worker having control over the return-to-work process.

*Work organisational policy and practices*

- a good health and safety culture and the promotion of musculoskeletal health;
- facilitating early disclosure and early intervention;
- a return-to-work policy;
- a flexible working policy;
- a teleworking policy;
- being able to stretch and exercise;
- worker control over how they carry out tasks and when they can take breaks.

## Discussion

### ▪ Limitations and strengths

The study was limited by the number of participants, but using a qualitative methodology did help to increase the depth of the information that was collated from the survey and interviews. A range of different workers with a variety of different chronic MSDs were included.

### ▪ Facilitators of success

Facilitators of success in retaining workers include the fact that the worker wants to come back to work, which is extremely important. Ensuring that workers feel valued and continuing to maintain contact when they are on sick leave can help with the process. Being able to change working hours, work tasks, equipment or job roles also helped people to stay at work. These do not need to be expensive changes; they can be simple adjustments that help someone to work effectively. Having policies in place, such as a return-to-work policy integrated with other company-wide policies, can help to ensure that information about workplace accommodations is shared more widely.

The cases also highlighted that taking a multidisciplinary approach to retaining people at work is helpful; in particular this means including the healthcare team, HR, the line manager and the worker. This does mean that line managers need knowledge about chronic MSDs and the policies in place to help workers.

While an individual worker does not have to declare that they have a health problem, good communication is important, as declaring a health problem can help the worker to gain access to support measures. Starting these conversations can be difficult, and guidance is available from the European Agency for Safety and Health at Work to help people to do that.

Early intervention is also important, and in one of the cases this happened before the full diagnosis as a means of retaining the person at work. This underlines the fact that you do not need to be 100 % fit to start a phased return to work.

Helping the worker to understand that there may be trial and error involved in implementing new equipment is also essential. It is important that the worker understands this and does not become despondent because the first piece of equipment or change in work does not reduce pain.

The cases also took place in the context of organisations that had a good health and safety system, took the promotion of musculoskeletal health seriously and showed a commitment to supporting retention at work.

### ▪ Factors that contribute to success

A number of success factors were identified, including having a supportive line manager who wants to help find solutions, and being able to have flexibility in relation to working time and the worker's job role. It is also important that the worker themselves understands the need to try out different items of equipment or changes to the workplace and that there will be a period of trial and error first.

### ▪ Innovation

Have an agreed understanding of what a restroom should be and provide, for example an area to stretch in some privacy.

Use technology such as VRS or Bluetooth headsets to enable workers to interact with technology in a different way.

### ▪ Challenges and transferability

At one level, most of the items of equipment implemented are transferable to all workplaces. However, changing job roles may be more difficult in small and medium-sized enterprises (SMEs) because of the limited number of roles and tasks. The same can also be said for flexibility in relation to working time and teleworking, which might depend on the tasks being carried out.

All of the changes identified require that good occupational safety and health and support systems are in place. It is important that those required to supervise workers have some awareness of chronic MSDs and the impacts that they have.

The implementation time in two of the cases was extremely long (over 2 years), so the need for early intervention does need to be underlined. Equally, an understanding that enough time needs to be allowed, and that it can be an on-going process, is important.

While there are authoritative sources of information available to support those with chronic MSDs, it is important to guide employers and workers to better quality sources.

## Conclusions

A number of factors were identified as being important in retaining people with chronic MSDs at work. These include:

- having a good health and safety culture and promoting musculoskeletal health;
- having a good organisational culture;
- having open and trusting communication in the workplace;
- ensuring that valued workers are seen as assets not problems;
- having policies available to support return to work and workplace accommodations;
- ensuring that there is knowledge and awareness of chronic MSDs across the workforce;
- the use of a range of measures, including technological measures, often simple ones;
- facilitating early disclosure and early intervention.

It is important that those managing workers are given enough information and training on the impact of chronic MSDs and how to support workers. While expertise is available in larger organisations to support workers who are returning to work, there are likely to be concerns about the availability of this expertise in SMEs. As the cases show, many of the interventions involved simple changes to keep people at work that could be implemented by an organisation of any size. However, small businesses need access to support and health care, and disability and return-to-work systems need to be kept simple for both employers and employees.

Looking to the future, universal or inclusive design for workplaces may be helpful to ensure accessibility for everyone at the design stage of a workplace, rather than needing to implement remediation measures later on.

The main facilitators of success identified in this case analysis are:

- the worker having a supportive line manager and supportive colleagues;
- utilising multidisciplinary support;
- having an open communication culture, to be able to raise problems;
- providing flexibility in working time and the opportunity to telework, when possible;
- being aware of the fact that not all interventions will work first time (trialability);
- being aware of the fact that not all interventions need not be expensive or complex;
- the worker having personal agency to search for information on their health condition.

## Advice for micro and small businesses, based on the case studies

Although small organisations have fewer resources and less flexibility to adapt work or provide flexible working and a gradual return to work, simple steps can often be taken through discussions with the worker with the health problem to support them to continue to work. In some European Union Member States, employers and workers may have access to support from external return-to-work programmes or work insurance organisations. Some of the measures applied in the cases are easily transferable to small businesses, and others, particularly policy and procedural elements, could be applied in a simpler form in small businesses. The advice for small employers from the case studies is as follows.

### ▪ **General approaches suggested by the case studies**

- Ensure workers know that the employer has a positive attitude to valuing workers and supporting them, even if a formal policy is not in place.
- Be open to exploring ways to support someone to continue to work. Take a positive attitude by starting with the idea of ‘let’s see what might be possible’, rather than assuming from the outset that it will be impossible. If in the end it proves too difficult to accommodate a worker, they will leave with a positive attitude, knowing that you at least tried, and other workers will see this as well.
- Discuss with the worker their problems with work, wishes and ideas for measures that could be taken. Often in smaller organisations communication is better, as everyone knows each other.
- Get simple advice from relevant non-governmental organisations, work insurance organisations, and national health and safety websites. Involve the worker in this, for example by asking the worker to find and share relevant information. Ask them if they have had any advice given to them by their medical physician, physiotherapist, etc. Check if there are any external programmes that provide support to employers and/or workers.
- Make a simple plan in writing, for example a bullet point list of steps and measures agreed on. This will help to make the approach more systematic and avoid misunderstandings. In some countries, external return-to-work programmes have the role of developing return-to-work plans.

### ▪ **Simple measures and suggestions from the case studies that could be adopted**

#### *Tools and equipment*

- Provide seats to rest in a standing workplace.
- Provide sit-stand desks in a largely seated workplace.
- Trial computer input devices — these can be inexpensive devices, such as a keyboard or computer mouse.
- Provide cushions for greater comfort while sitting — this could also be applicable to sitting while travelling.
- Consider changing the keyboard position, for example lowering the keyboard.
- Consider introducing a cordless headset.
- Consider introducing an adapted chair.

#### *Social/organisational*

- Allow changes to start and finish times so that the worker can avoid rush hour traffic or to allow time in the mornings for physiotherapy exercises before work.
- Allow rearrangement of working hours around medical appointments.
- Facilitate the self-management of work, including allowing the worker to control their own screen time and limit prolonged sitting and allowing breaks when required.
- Consider who is best placed to conduct a task, for example support staff trained in data entry might be able to assist with data entry tasks and colleagues could assist with lifting tasks.
- Consider minimising work travel or, if necessary, allowing the use of taxis to avoid the worker carrying luggage, booking an aisle seat to facilitate movement, providing a cushion for extra support and booking hotels with gym facilities for daily exercise/stretching routines.
- Where applicable, consider providing the worker with the opportunity to swap shifts with colleagues (as appropriate and agreed) to ensure attendance at medical appointments.
- Consider role change in discussion with the worker where appropriate and possible.

*Workplace policies and practices*

- Conduct risk assessments to identify risks and support changes.
  - Provide the option of teleworking or working at home and ensure that the relevant infrastructure is in place to do this (e.g. a laptop and internet connection).
  - Involve a multidisciplinary team in return-to-work or retention-at-work processes.
  - Ensure line manager support, both formally (e.g. in a meeting) and informally (e.g. catching up over a coffee), whether the worker is away from work, in the process of returning to work or remains in work.
  - Encourage open communication between line managers and workers so that all parties feel comfortable discussing the process.
  - Provide access to a space in the workplace for stretching and exercises. This space may be multifunctional, with different people using it for different activities, for example stretching and meditating.
  - Encourage all staff to minimise prolonged sitting by taking mini-breaks and stretching.
  - Trial different options and tools, as there may be a need for some trial and error before finding a solution that works for the person.
  - Ensure line managers have an awareness of the potential impact of chronic MSDs on their workers and understand how best to manage issues when they arise. This does not need to be an expert level of knowledge, as there are occupational health and ergonomics services that can be called on if necessary; it is more that managers need to gain a general understanding of the potential impact and how to manage issues as they arise.
- **Conclusions for small businesses**

There are many simple steps that even a small business can take to support an employee to continue to work. Factors such as having a supportive manager or being able to stretch and exercise are independent of the size of the organisation. Nevertheless, the likelihood of small businesses providing support, and also finding the optimum solution, is greatly increased in circumstances where companies and employees have access to coordinated external multidisciplinary programmes and financial support, for example for making adaptations; medical treatment includes return to work and retention at work as a clinical outcome; and companies and employees have access to occupational health services, for both early detection of problems and support for making workplace adaptations. A system is needed that encourages clinicians and employers to focus on workers' capabilities and not their disabilities. The burden on small businesses can be reduced not only by providing financial and technical support but also by simplifying return-to-work systems and procedures. A focus on prevention and early intervention is paramount.

# 1 Introduction

This report is part of a larger project on working with chronic musculoskeletal disorders (MSDs) that includes a report concerning good practices and two articles <sup>(1)</sup><sup>(2)</sup>. This report includes the case studies developed as part of the project, provides a comparative analysis of the cases and presents a discussion of the findings in relation to this research and other recent research.

MSDs are the most widespread disorders in the global workforce. They can be either work-related or related to a health condition such as osteoarthritis or rheumatoid arthritis. In the context of this report, chronic MSDs are defined as 'those MSDs that last more than 12 weeks, including chronic back pain or chronic upper limb disorders, as well as rheumatic diseases, degenerative conditions such as osteoarthritis or osteoporosis and non-specific pain syndromes categorised as chronic'.

The overarching project has examined various aspects of chronic MSDs, including their impact on a sufferer's ability to work and providing guidance to help retain people at work. This study aims to examine the journey of either returning to work or staying at work with a chronic MSD and to identify facilitators of and barriers to worker retention. The overarching project is, in turn, part of a larger research activity on MSDs <sup>(3)</sup>.

## 2 Case methodology

### 2.1 Case study aims

The aim of the case study component of the project was to identify and collate the views and experiences of those who had returned to work (or stayed at work) with a chronic MSD. More specifically, the project aimed to explore what had been most helpful and unhelpful to those workers, and how and if support, advice and information had been accessed, in order to identify good practices.

### 2.2 Case study recruitment

There were two stages to the recruitment of the cases. Stage 1 was intended to identify 15 good practice examples, with the aim of classifying these by country, sector, size of organisation and type of condition. Following this, stage 2 sought to select 10 of these cases to represent different aspects of the return-to-work process, including different countries and different sizes of organisations. However, difficulties with recruitment in stage 1 resulted in the two stages being combined (all cases were considered worth selecting).

#### 2.2.1 Recruitment criteria

To indicate the breadth and depth of the cases, the following boundaries and criteria (Yin, 2009) were applied:

- the cases needed to involve employed people who had returned to work with a chronic MSD or who had continued to work with a chronic MSD;
- support provided for returning to work or continuing to work needed to have been given in the previous 12 months.

By using multiple cases (up to 10), there is a greater potential for generalising from the findings, allowing the triangulation of evidence (Yin, 2009) and comparison of results. The boundaries listed above were applied using a purposive sampling technique, to seek out people who had either returned to work or stayed at work with a chronic MSD (Silverman, 2013). The intention was to cover a representative range of the (then) 28 European Union (EU) Member States and of sectors, organisation sizes and types of chronic MSD.

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<sup>(1)</sup> [https://oshwiki.eu/wiki/Working\\_with\\_rheumatic\\_and\\_musculoskeletal\\_diseases\\_\(RMDs\)](https://oshwiki.eu/wiki/Working_with_rheumatic_and_musculoskeletal_diseases_(RMDs))

<sup>(2)</sup> [https://oshwiki.eu/wiki/Managing\\_low\\_back\\_conditions\\_and\\_low\\_back\\_pain](https://oshwiki.eu/wiki/Managing_low_back_conditions_and_low_back_pain)

<sup>(3)</sup> <https://osha.europa.eu/en/research-work-related-msds>

## **2.2.2 Recruitment methods**

The recruitment methods involved a purposive and targeted call for evidence, consulting with the European Agency for Safety and Health at Work (EU-OSHA) and its national focal points.

Recruitment was carried out through a variety of channels, including using the project team's contacts and online through social media (e.g. LinkedIn). Emails were also sent to contacts including the European League Against Rheumatism (EULAR), the Institute for Employment Studies (IES) and the Arthritis and Musculoskeletal Alliance (ARMA) to help identify people who would be willing to be involved in the project.

## **2.3 Case study methods**

The development of the case study methods (e.g. the interview questions) was informed by the results of a literature review carried out as part of the larger project on working with chronic MSDs, as well as the experience and knowledge of the project team.

Initial contact with potential participants included an introductory email (Appendix 1), which included (as attachments) the participant information sheet (Appendix 2); a copy of the pre-interview questionnaire (Appendix 3); and a consent form (Appendix 4), to be completed if the recipient was willing to participate.

Once the pre-interview documents had been completed, a time and date were arranged for the case interview (the interview pro forma can be seen in Appendix 5). At this stage, the interview consent form (Appendix 6) was completed, and a copy of the interview schedule was shared with the worker before the interview.

Ethical clearance for the case work and methodology documents was obtained from the Reading Independent Ethics Committee.

When the cases had been identified, experts translated the interview questions as required (e.g. into Greek) so that the interviews could be conducted in the native language of the worker.

### **2.3.1 Piloting**

Once the interviews, pre-interview questionnaires, information sheet and consent form had been developed, they were piloted internally in the Institute of Occupational Medicine (IOM), where one person was interviewed. There were no updates or changes made as a result of the pilot study.

### **2.3.2 Pre-interview questionnaire**

Before the interview with the worker with a chronic MSD, the participant completed the pre-interview questionnaire and returned it to the researcher by email. The aim of this questionnaire was to collect demographic and health information that interviewees might prefer to disclose in private, rather than in an interview setting. This also provided contextual information for the researcher before the interview was conducted. The questionnaire included the following topics:

- your organisation;
- your work;
- your MSD experience;
- other support.

### **2.3.3 Interviews with workers**

The interviews with the workers were designed to obtain detailed information about their experiences of returning to work or staying at work with a chronic MSD. They included the following topics:

- the worker's MSD experience;
- context and background;
- occupational safety and health (OSH) risks identified;
- organisational and/or workplace adjustments made:
  - planning adjustments;
  - using professional advice/services;

- questions for workers who had returned to work (e.g. workers who had had time off work but had returned to the same employer):
  - keeping in contact;
  - agreeing a return-to-work plan;
  - coordinating the return-to-work process.
- questions for workers who had stayed at work (e.g. adjustments were made but the worker did not take any time off work):
  - contact;
  - agreeing a plan to support the worker to continue to work;
  - coordinating the process;
- support given and by whom;
- outcomes/impact;
- ease or difficulty of implementing the advice:
  - What was helpful and unhelpful in the process?
  - What was helpful?
  - What was unhelpful?
  - What factors contributed to success?
- transferability;
- costs and benefits (if measured);
- further relevant information.

The interview schedules for the participants were tailored to their circumstances, and whether they had returned to work or stayed at work. An IOM researcher conducted separate interviews, lasting between 30 minutes and 60 minutes, with each stakeholder, either face to face or by telephone.

## 3 Case results

### 3.1 Recruitment

Eight people were successfully recruited to the study within the timescale of September 2018–November 2019. Six additional people had expressed their initial willingness to participate but withdrew before completing any stage of the data collection. A further four participants completed stage 1 of the data collection but went no further in the process.

Ideally, with the agreement of the worker, others involved in the retention process, such as the line manager, would also have been interviewed. However, there was a lack of willingness among participants to pursue further interviews and, as a result of project timescales, this plan was not pursued.

### 3.2 Case analysis

Based on the case notes and questionnaires, a comparative analysis was carried out to identify elements of good practice in managing chronic MSDs during a process for return to work or retention at work. Comparisons were made within and between the different contexts of the case studies. The analysis sought to identify some of the common factors among the cases. It was carried out using the biopsychosocial (BPS) model (Engels, 1977) as a framework for considering the good practices. While other analytic methods were discussed within the research team, the cases themselves are at an individual level, and there was no consideration of a theory of change during the implementation of interventions in the cases.

#### 3.2.1 Case reporting

After each case was completed, the results from the interviews with the participants were developed into case summary reports (these reports are included in Chapter 9 of this report. The structure of each summary was dependent on the content and experience of the individual case. An example structure is:

- Context/background
- Demographic and health information

- Process for retention at work
  - Support given and by whom
  - Workplace changes
    - Tools and equipment
    - Workplace
    - Tasks
    - Work travel
    - Working time
    - Health and safety risks identified
    - Ease or difficulty of implementing the advice
- Transferability
- Lessons learned
- Costs and benefits
- Summary of changes
- References and resources

Producing the summary reports allowed the identification of what had happened in each individual case. Collating this information enabled the researchers to identify good practices from the cases in relation to the key lessons learned and transferability.

## 4 Overview of the cases

Table 1 presents the profession of each worker, together with the nature of their MSD and a brief summary of the accommodations made for them.

**Table 1 Cases with reference numbers**

Reference number and summary of accommodations	Profession	Type of MSD
Case 1 — Shop worker with chondromalacia assisted by simple accommodations and supportive colleagues	Shop assistant	Chondromalacia
Case 2 — Accommodations and tasks changes to enable an information and communications technology (ICT) worker to manage knee osteoarthritis	ICT support worker	Osteoarthritis
Case 3 — Accommodations and self-managing osteoporosis for a university lecturer	Senior lecturer	Osteoporosis
Case 4 — Early intervention and accommodations for upper limb problems — research and data entry work	Researcher	Upper limb disorders
Case 5 — Return to reception work after bone fractures due to osteopenia	Receptionist	Osteopenia
Case 6 — Task changes for a podiatrist with neck problems	Podiatrist	Herniated neck disc
Case 7 — Workplace stretching and other accommodations to enable return to work after a back problem — public administration	Project manager	Osteopenia and bone fracture
Case 8 — Job role changes and equipment accommodations for a police officer with multiple chronic MSDs	Police officer	Rib costochondritis, sciatica, finger pain

### Case 1 — Shop worker with chondromalacia assisted by simple accommodations and supportive colleagues

The case is that of a female shop worker in her late 40s who has been diagnosed with chondromalacia (a deterioration of cartilaginous material in the joints) in her wrists and knee joints. Her knee in particular is in an advanced state of deterioration, and she has been receiving medical treatment and physiotherapy. The worker is employed full-time in a retail environment; she generally works the afternoon shift but is able to exchange shifts with other workers, to enable her to attend medical appointments. The worker has a good relationship with her employer and colleagues and has been given a stool to sit on when no customers are present, as well as access to a restroom. Colleagues also help her to carry heavy items to prevent further knee deterioration. As a result of these changes, she has been able to maintain her full-time role and attend medical appointments when required, without taking time off work.

## Case 2 — Accommodations and task changes to enable an ICT worker to manage knee osteoarthritis

The case is that of a male ICT worker in his early 50s who supports video conferencing. He has been diagnosed with moderate knee osteoarthritis, and carrying heavy items can aggravate symptoms in the affected knee joint. Previously, his job involved a lot of carrying and kneeling when installing equipment. The organisation carries out required risk assessments. After a discussion with his line manager, and in an attempt to keep an expert worker, a need to change his job role to one that was office-based was identified. Additional training was provided to the worker to enable him to work in a support role, managing clients' needs and training other staff. Additional support provided has included a Bluetooth headset, to enable him to move around the office while on the telephone; arrangements enabling him to work at home when in excessive pain; and a full display screen equipment (DSE) risk assessment being carried out in both the work and the home environment.

## Case 3 — Accommodations and self-managing osteoporosis for a university lecturer

The case is that of a female lecturer in her early 50s working in a university environment. She was diagnosed with osteoporosis (a condition that weakens the bones) 6 years ago. While she was suffering back pain at that point, she did not want to take sick leave because of work commitments. She reported her diagnosis to her line manager and other colleagues. From a self-management perspective, she sought information about her condition and made lifestyle and work changes. In the workplace, she is not required to carry heavy items and is trying to control her screen time. As part of this, she ensures that she takes regular screen breaks, to enable her to move and help prevent stiffening of her back. No additional equipment was required in this case.

## Case 4 — Early intervention and accommodations for upper limb problems — research and data entry work

The case is that of a female researcher in her early 60s. She has been working in the same organisation for the past 10 years. Some years ago, she faced a problem with tingling and pins and needles in her fingers when typing. She is currently waiting for a formal diagnosis for her symptoms, but her workplace has been assessed under the national regulations implementing the provisions of the DSE regulations, and additional support has been given to her by her general practitioner (GP), an occupational health advisor and ergonomists. Several solutions have been trialled with the worker, some of which have been more helpful than others. These have included installing a purpose-built shelf below her desk, enabling her to lower her keyboard; ensuring that screen breaks are taken; and facilitating working from home. Data entry tasks that she previously had to undertake have also been transferred to other workers to reduce the need for continuous typing. Finally, a voice recognition system (VRS) is also being trialled. Early intervention and continued evaluation have enabled the worker to continue in her full-time role.

## Case 5 — Return to reception work after bone fractures due to osteopenia

The case is that of a female receptionist in her early 60s. She was diagnosed with osteoarthritis (joint pain and stiffness) and osteopenia (thinning of the bones) 6 years ago. As a result of a fall at home, she broke two vertebrae and damaged her knee and ankle ligaments. After 6 months of sick leave, the worker started a phased return to work over a 3-month period; since her return, she has been using crutches. Her line manager, colleagues and human resources (HR) maintained contact with her (both formally and informally) during her absence. Her workstation was risk-assessed and a larger flat footrest provided to improve stability when seated. She was also provided with a hands-free Bluetooth headset for the telephone, and space was created around her desk to enable her to move every 30 minutes. The worker continues to receive physiotherapy treatment and is able to access ergonomics support when needed.

## Case 6 — Task changes for a podiatrist with neck problems

The case is that of a female podiatrist in her early 40s who has worked for the same organisation for the past 16 years. Eight years ago, she was diagnosed with a herniated neck disc, resulting in symptoms of stiffness and pain, together with pressure on the nerves leading to her hands. As a podiatrist, the worker treats patients' feet, requiring her to work bent over to reach the patient. She also has to manoeuvre wheelchair-bound patients and carry out office-based tasks, including writing up case notes and typing. After a discussion with her line manager and colleagues, she was given advice on adopting neutral postures when possible. Her office workstation was assessed under national legislation implementing the provisions of the DSE regulations, and the workstation was changed, with an adjustable seat, an adapted mouse and a new keyboard provided. Attempts are under way to improve the workplace and reduce the amount of bending and neck flexion required. This has included removing the need for the worker to manoeuvre wheelchairs.

## Case 7 — Workplace stretching and other accommodations to enable return to work after a back problem — public administration

The case is that of a female project manager in her early 60s. She has worked for the same organisation for 21 years in a desk-based role. Her job involves project management, administration and desk-based research. She has faced problems with pain in her lower back for the past 7 years, and, after several medical examinations, she was diagnosed with piriformis muscle syndrome. The main symptom of this is acute pain, especially when sitting. The worker was absent from work for 1 year, and she then went through a planned phased return to work, after discussions with her line manager and other health professionals. Her line manager and colleagues maintained contact with her during her absence. Several changes were implemented to facilitate her return. These included providing access to a sit-stand desk, VRS, a 'stick stool' for use during events involving standing, a wheelchair cushion for comfort when sitting and a restroom for stretching. The worker also has to travel by air as part of her work. To facilitate this, her organisation ensures that she has an aisle seat on the plane so that she can move around. In addition, hotels providing access to gym facilities are routinely booked for her trips. Now working at 80 % of full-time hours, the worker has been able to continue in her role in a way that is sustainable in the long term.

## Case 8 — Job role changes and equipment accommodations for a police officer with multiple chronic MSDs

The case is that of a male police officer in his early 50s. He has three types of chronic MSD: sciatica (where the sciatic nerve is irritated); costochondritis (inflammation of the cartilage between the ribs and the sternum); and finger pain. As a police officer, he was previously required to drive for long periods and was required to wear personal protective equipment (PPE) (including a heavy anti-stab vest). After discussions with his line manager and an occupational health provider, he was moved to a new role. The role is office-based and does not require him to wear PPE or drive. His office has been adapted by the installation of a sit-stand desk, enabling him to readily change his working posture as required. He has also been provided with an adapted mouse and keyboard. The worker also sought information himself on his various conditions and has increased his level of physical activity. Although he has moved away from his former colleagues and their support, his new role enables him to continue to work full-time.

## 5 Analysis

### 5.1 Breakdown of the cases

A breakdown of the types of cases is presented in Table 2. As can be seen from this table, the majority of participants recruited were female and worked in mostly static roles, either manual or sedentary. The cases that were successfully recruited involved organisations of different sizes and participants in different professions, as well as six people who had stayed at work and two who had returned to work.

Table 2. Comparative description of the cases

Information	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Size of company	Medium	Medium	Large	Medium	Medium	Large	Medium	Large
Static postures in job	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector	Retail	ICT	Education	Research	Research	Health	Administration	Public
Male/female	Female	Male	Female	Female	Female	Female	Female	Male
Return to work	No	No	No	No	Yes	No	Yes	No
MSD type	Chondromalacia	Knee osteoarthritis	Osteoporosis	Hand and wrist problems (undiagnosed)	Osteoporosis and osteopenia	Herniated neck disc	Piriformis syndrome	Sciatica, finger pain, costochondritis
Years in current organisation	17	12	11	10	5.5	15	21	31.5

Table 3 presents information from the pre-interview questionnaires in relation to whether or not the organisations have return-to-work programmes, flexible working and teleworking practices available. As can be seen, there are mixed responses. It can be seen from this that, while all organisations had a return-to-work policy, only two workers actually went through a phased return to work. What is also interesting to note is that flexible working was available to six of the workers and five workers were able to telework.

Table 3 Work organisation policy

Work organisation policy	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Do you have access to a return-to-work programme?	Yes							
Did you return to work?	No	No	No	No	Yes	No	Yes	No
Is flexible working available to you?	No	Yes	Yes	Yes	No	Yes	Yes	Yes

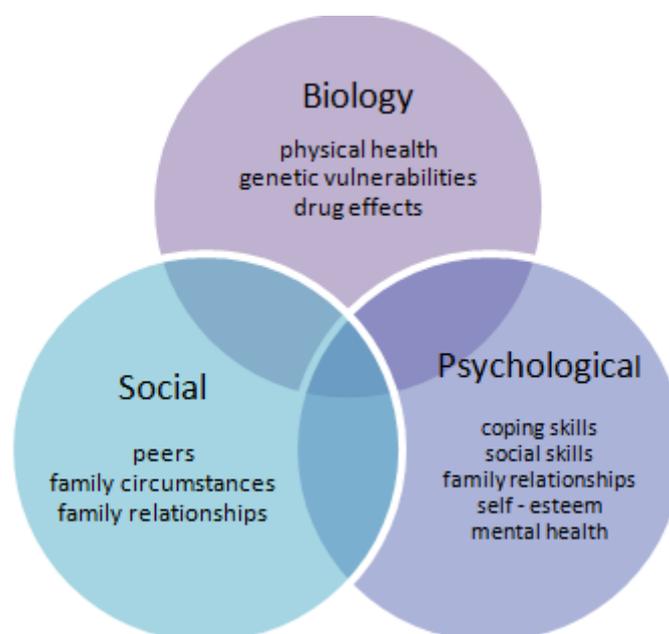
Work organisation policy	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Are you able to work from home (telework)?	No	Yes	Yes	Yes	No	No	Yes	Yes

Note: Greece has a return-to-work programme at national level, but it is not phased (graduated).

## 5.2 Good practice findings from the cases

Various themes and sub-themes have been identified in the cases using the BPS model. The BPS model was developed by Engels (1977) as a response to the traditional medical model of illness and disease, in which illness is treated only by medical means. In contrast, in the BPS model the social and psychological influences on a person's health are also considered, recognising that thoughts and beliefs can influence a person's physical state. Figure 1 presents the model, illustrating the different influences on health, including physical health, psychological factors and social factors. The cases have been analysed using this framework to take into consideration the different influences acting on the workers and their retention at work.

Figure 1 The BPS model



Source: [https://commons.wikimedia.org/wiki/File:Biopsychosocial\\_Model\\_of\\_Health\\_1.png](https://commons.wikimedia.org/wiki/File:Biopsychosocial_Model_of_Health_1.png)

### 5.2.1 Biophysical

#### ▪ Physical tasks

Physical tasks are those that involve body force and/or body movement. Since these tasks may be difficult for or pose a risk to a worker with a chronic MSD, the interviews focused on how the workers had made changes to their tasks. In the eight cases, different aspects of physical tasks were identified, as well as a number of solutions.

Two cases (1 and 5) involved risks from handling loads, and, in both cases, when colleagues were made aware of the health issues, there was a willingness to help. However, no mention was made of the provision of additional handling aids in the two organisations as a further means of facilitating such work.

In another two cases (7 and 8), the workers are now using sit–stand desks, enabling them to change posture during the working day and, when seated, to select a good height to allow pain-free working. While standing for prolonged periods was an issue for two workers, the impact of this had been reduced by the provision of a stick stool or a stool to enable them to sit when possible.

Having access to a restroom was highlighted by several of the workers as an important factor. This provides them with a degree of privacy for resting or for undertaking exercises such as stretching. As highlighted by one of the worker, people may not want to stretch in an open-plan office.

Two of the workers have also changed their role within the organisation (cases 2 and 8) because of the physical nature of their previous work (lifting, handling and kneeling) or their workplace and equipment (needing to wear an anti-stab vest and prolonged vehicle use). This has resulted in the retention of the workers in the organisation (retaining their skills and knowledge), albeit in new roles.

Problematic work tasks were also identified in case 4. Data entry work caused the worker problems, but it proved possible to give this task to one of the secretarial staff in the organisation. This has the dual benefit of enabling a worker who is specifically trained in data entry work to take on this role and removing the requirement for the worker to undertake this activity.

#### ▪ Tools and equipment

A variety of tools and items of equipment were either changed or introduced to the workers' workstations, to enable them to work more safely and in a more comfortable way. The tools and equipment identified are summarised in Table 4.

A number of technological interventions were made in the cases, including the use of Bluetooth headsets, to allow movement away from the desk when talking to clients, and in two cases VRS was provided. While this software does enable a person to work without using a keyboard or mouse, it has to be acknowledged that time is needed for the user to learn how to use a VRS system and for the VRS system to learn the voice of the user. Furthermore, consideration needs to be given to where the VRS is going to be used, as it has to be in a quiet environment to ensure that the system understands the user's speech and that the user does not disturb others.

Different items of DSE, such as adapted keyboards, adapted mice and adjustable chairs, were also offered as solutions to retain the workers at work. In the case of keyboards, this included lowering a keyboard to enable the user to sit with her feet on the floor (rather than on a footrest) to make her feel more stable. While these do not have to be expensive options, it is important that an understanding is reached with the worker that the different items offered may not provide an immediate solution. Trialling different tools is important if the right solution is to be found. In the context of DSE use, case 3 highlighted the importance of having control over screen time to enable breaks to be taken.

Other simple support mechanisms included inflatable cushions that the worker could use when travelling, an alternative (horizontal) footrest and the replacement of a drawer set so that it could be more easily manoeuvred.

While manual handling was mentioned in three of the cases and there was a willingness from colleagues to help, there was no indication that risk assessments had been used to evaluate the need for lifting aids in these environments; these aids could have avoided the need for other workers to take on these tasks.

**Table 4. Useful tools and equipment used by the workers**

Case	Tools and equipment
1	Stool
2	Cordless headset
3	None
4	Wrist splint; lowered keyboard, VRS, smaller mouse;

Case	Tools and equipment
5	Footrest; cordless headset; adapted chair; easily handled office furniture
6	Adjustable chair; adapted mouse and adapted keyboard
7	VRS; cushion; cordless headset; lightweight stick stool; sit–stand desk; two adapted chairs
8	Sit–stand desk; adapted keyboard and mouse

#### ▪ Range of measures

It is noted that, in the eight cases, a range of measures was taken to facilitate the workers' retention or return to work. This included trialling different equipment or ways of working before an acceptable solution was identified. It is important that the different measures implemented do not create new risks, so an evaluation of the impact of the measures is important. There also needs to be consideration of how quickly a number of different measures are brought into the workplace, as there must be enough time for equipment to be trialled and, if it works, adopted by the end user.

#### ▪ Identifying OSH risks

OSH risks are those risks related to a job or work tasks that are likely to cause harm or injury to a worker. Risk assessment is the formal process that identifies those risks. However, the cases included in this report did not always involve a formal risk assessment process; in some cases, changes were made after the condition was disclosed and after conversations with line managers.

Formal DSE workstation assessments were completed in five of the cases, where the person's work involved the use of computers. In three of the cases (cases 1, 2 and 3), changes were made to remove physical risks following conversations with line managers, advice from medical professionals and self-management of computer use. This underlines the importance of communication between workers and line managers and being able to talk freely about problems and potential solutions.

#### ▪ Travel/commute

Commuting to work can be a problem for a worker with a chronic MSD. The cases identified that useful changes including increasing the extent of teleworking and varying work times (including enabling working at home) to avoid the need to travel during rush hour periods. In cases 3, 6 and 8, the workers modified their behaviour by introducing more walking into their day, with movement being recognised as a valuable therapy (and lack of movement as a common cause of discomfort).

In some cases, it is not just a question of the commute to work but additional work travel if it is required. Case 7 identified changes that have been made in relation to work travel, including minimising trips where possible, packing light, taking taxis to avoid prolonged sitting, booking an aisle seat on an aeroplane to be able to get up and move, and carrying cushions to provide additional support when required.

#### ▪ Stretching/exercise

Physical exercises and stretching are often recommended for managing chronic MSDs. This was highlighted by the cases. Examples included formal activities such as Pilates, yoga and using gym facilities, as well as simply standing and moving as part of the working day.

When regular exercises are required to alleviate symptoms, it was highlighted that having access to a restroom is helpful, as people may not wish to do exercises in a more public area of their workplace. This was emphasised in cases 3 and 7. Furthermore, advertising the availability of a restroom and encouraging its use would be beneficial to everyone.

## 5.2.2 Social/organisational

### ▪ Flexibility in employment

In the cases, we identified various routes to enabling flexibility in employment to support a worker with a chronic MSD. The findings emphasised the importance of having an open culture in which issues can be discussed and work can be arranged around medical appointments or treatment.

Clearly, an employer needs to acquire a good understanding of the restrictions or needs that the worker's condition imposes; therefore, discussions with the employee are essential. These discussions should be supplemented by advice and guidance from a health professional as necessary.

Shift changes can be made to reduce the number of hours that a person works or to alter when they start work. Case 7 involved the need for a later start to enable stretching exercises to be completed before coming to work. Case 1 highlighted the opportunity to swap shifts with another colleague to be able to attend appointments.

Flexibility can also be considered in relation to where a person works. Thus, the worker in case 2 is able to telework from home when his pain is an issue. This reduces his need to travel and the need to physically be in the workplace. However, the organisation usually has to supply suitable equipment for use at home to enable this to happen. In some situations, time in lieu can be accrued to enable a worker to take more time away from work when necessary (cases 2 and 4).

Flexible working (reduced hours or flexitime) was also available to two workers, and this enabled them to manage their working time and symptoms.

### ▪ Sickness absence and return to work

The majority of cases included in this analysis, the workers did not take sick leave. Sickness absence legislation and levels of support from various organisations vary by Member State. For the two workers who did take sick leave, both went through a phased return to work that was planned and agreed with their line manager. What was also important was the support that the workers received from their managers, health professionals and colleagues during this time. In addition, all workers had access to a return-to-work programme should they require it.

### ▪ Changes made to work

This section focuses on changes that were made to work tasks or the workplace to enable worker retention. These were found to be varied and included a change in job role in cases 2 and 8, to remove physical risks. Work tasks were also changed in cases 1, 5 and 6 with the removal of or a reduction in the need to carry out manual handling tasks. Self-management of screen time to reduce time spent sitting still was highlighted by case 3. Finally, moving to a new individual office to reduce the impact of noise when using VRS was helpful for the worker in case 7.

### ▪ Taking a multidisciplinary approach

Taking a multidisciplinary approach to improving retention of those with chronic MSDs was found to be helpful in several of the cases. This included general medical practitioners, physiotherapists and occupational physicians giving advice to the workers on health issues and return to work (where relevant). Two of the workers received support from professional ergonomists who worked with them, their line manager and an HR manager. Further support was also given by line managers, HR managers and staff representatives in each of the cases. The cases emphasised the importance of having different actors with different skill sets involved in the retention process to support the worker. Good, open communication also needs to be part of this process.

## 5.2.3 Psychological/individual

### ▪ Support from line managers

Line managers have a key role in supporting a worker's decision to return to or stay at work. In all the cases, it was down to one line manager in each organisation to help the worker to plan their return to work or deal with the ongoing MSD issues. All workers in the cases thought that this was an essential part of the process, as line managers have the authority to make changes in the workplace, to change

equipment and to alter working time. Maintaining contact (both formal and informal) with the two workers who had time away from work helped to make them feel valued in the organisation.

- **Support from colleagues**

All the cases emphasised the importance of having support from colleagues during return to work or retention at work. While this was not always formal support in relation to helping with manual handling, informal support, such as staying in contact with workers who were on sick leave, was appreciated in the cases. It was noted by the two workers who went through a return-to-work process that being in touch with colleagues helped them stay in touch with what was going on at work. A change in job role in case 8 meant moving to a new team and working with new colleagues, and the worker would have liked more time to inform his previous colleagues about the role change. An open communication culture is required to enable support from colleagues, and this could help to encourage workers to talk about any health problems they are experiencing.

- **Communication**

In the context of this report, communication is important on two levels: first, good, open communication is required in the workplace and, second, being able to communicate with the worker while the worker is on sick leave is also helpful. However, it is recognised that there may be confidentiality issues preventing contact with people on sick leave or stopping organisations sharing the reasons for their absence with others; such measures should always be undertaken with the consent of the person concerned. However, confidentiality can still be maintained, leaving workers with chronic MSDs in control of their personal information. The cases highlight that sharing information about health status can help to gain support from colleagues (both physical and psychological). Furthermore, with regard to communication, there has to be a working environment in which the worker feels safe to communicate health information and is not concerned about how it could be misused.

- **Seeking advice**

Some of the workers sought advice in addition to the information that they had received from healthcare professionals. This included using web-based sources such as Versus Arthritis, the Escape Pain app, the UK National Health Service (NHS) website and the Lydia Osteoporosis Project website. Such sources can enable people to gain additional information that can help them in the self-management of their condition.

- **Having control over the return-to-work process and other interventions**

At an individual level, having control over the return-to-work process is essential. Trying to return to full-time work too quickly may cause symptoms to return or worsen. Both the timing of the phased return to work and understanding that someone may need to take a step backwards at times and reduce their working hours are important. The worker needs to be able to do this without pressure to ensure a successful return to work. Likewise, if the worker has control over how they work, how they carry out their tasks and when they can take breaks, they can self-manage their condition more effectively.

### **Examples of factors that supported retention at work**

#### *Physical workplace changes — tasks that require bodily force or new equipment/tools*

- removal or help with lifting and handling;
- passing tasks on to others, such as data entry work;
- the provision of sit–stand desks to allow posture changes;
- having access to a restroom to carry out stretches;
- technological interventions, adapted technology and VRS;
- testing interventions and taking a trial and error approach;
- assessing interventions to ensure no new risks are introduced;
- use of teleworking or not travelling during rush hour periods;
- careful planning and booking of international travel.

#### *Social/organisational changes*

- changing working hours to fit around appointments;
- ensuring the employer understands the restrictions on the worker and has the required conversations;
- a phased return to work worked out with the line manager and other stakeholders;
- a multidisciplinary approach, including health professionals, occupational health professionals, ergonomists, HR, line managers and the worker.

#### *Psychological/individual changes*

- line manager support;
- support from colleagues;
- open communication, while the worker is on leave and during the return phase;
- the worker having control over the return-to-work process.

#### *Work organisational policy and practices*

- a good health and safety culture and the promotion of musculoskeletal health;
- facilitating early disclosure and early intervention;
- a return-to-work policy;
- a flexible working policy;
- a teleworking policy;
- being able to stretch and exercise;
- worker control over how they carry out tasks and when they can take breaks.

## 6 Discussion

### 6.1 Limitations and strengths of the study

The aim of this case analysis was to examine the journey of either returning to work or staying at work with a chronic MSD and to identify facilitators of and barriers to worker retention. One of the main limitations in the study was that there were only eight workers. Although the project team did recruit 18 workers overall, six withdrew before any data had been collected and a further four completed only stage 1.

The study was qualitative by design and enabled the research team to gain information about the process of returning to work or staying at work, as well as interventions that had been made and what had worked during the process. The use of semi-structured interviews enabled the research team to gain an in-depth understanding of the process that the worker in question had experienced as well as allowing flexibility in the discussion. Furthermore, the focus on different sectors and job types provided a broader range of information to inform the retention of workers with a chronic MSD in the future.

### 6.2 Facilitators of success in returning to work or staying at work

In their report on how to respond to chronic health problems, Eurofound (2019) highlighted that a quarter of the EU working population had a chronic disease. While the present project focuses on chronic MSDs, there continues to be an increase in the number of people working with chronic health problems of all kinds across all age groups. This section aims to identify what can help in enabling the retention of workers with chronic MSDs, although some of the recommendations may also be applicable to those with other chronic health problems.

Wanting to return to work was found to be important in the case analysis. This suggests that people who feel that they are a valued part of the workforce and who feel positive about their work may be more ready to stay at work or return to work. This is likely to be facilitated by maintaining contact with the worker when they are on leave, should local legislation allow this (and with the agreement of the worker). As EU-OSHA (2016, 2018b) has identified, encouraging a positive attitude and having a supportive policy that sees workers as an asset rather than a problem will help to reinforce workers' feelings of being valued.

Flexibility and adaptability in being able to make changes at work to working hours, work equipment, work tasks or job roles is also perceived as a facilitator in enabling retention. These do not have to be expensive changes and, as the cases described here illustrate, in the majority of cases, simple changes can be made to help people to continue to work. Individual changes were made in each of the cases; these included the use of DSE risk assessments to identify risks and to support changes to computer technology, such as the introduction of VRS. However, a report by EU-OSHA (2020) emphasises that small changes are often enough to help retention. Furthermore, all the cases reported here were in either medium-sized or large enterprises, where support may be more readily available. According to Eurofound (2019), workplace size is not necessarily a factor in whether adjustments or adaptations are made. This relates more to whether the worker feels able to share relevant health information and whether they have high levels of support from managers and colleagues.

Having supportive policies in place, such as a clear return-to-work policy, was a factor in all of the cases, although six workers did not take any time off. EU-OSHA (2020) reports that having such policies integrated into wider company policies can help to encourage the sharing of information about workplace accommodations that can be made and that this may help a larger number of people.

The cases demonstrate that taking a multidisciplinary approach to retaining people at work — with healthcare professionals, HR, the line manager and the worker involved — is helpful. Although several of the cases involved such an approach, it was not evident in all the cases. It is important to have a joined-up approach involving all contributors; however, the driver of change does appear to be primarily the interaction between the worker and the line manager. This suggests a number of important points. In particular, line managers need to be aware of the potential impact of chronic MSDs on their workers and understand how best to manage this issue when it arises. Open communication between the line manager and the worker is also essential.

In relation to communication, while a worker does not need to declare a health problem, declaring relevant aspects of such a problem will help them to obtain guidance and potentially gain access to other support measures such as those provided by occupational health and ergonomics. In some countries, when the health problem in question is recognised as an occupational disorder the right to such support is enshrined in legislation. It must be acknowledged, however, that it can often be difficult for a worker to declare that they have a problem. This can depend on the nature of their relationship with their line manager and the company culture. EU-OSHA has published a report on conversation starters for workplace discussions about MSDs (EU-OSHA, 2019). This document provides a number of scenarios to help foster group discussions on MSDs that can increase awareness of the topic at all levels in an organisation. Furthermore, the person who is told about the chronic health problem (which may be the line manager) also has to take steps to work with the worker when they are told about their health status. EU-OSHA provides guidance on this (EU-OSHA, 2018a), including:

- show empathy and understanding of the situation;
- discuss with the worker their wishes regarding disclosure;
- discuss the legal rights and duties of both the employer and the worker regarding sick leave;
- discuss whether the worker could possibly stay active at work and to what extent in terms of workload, tools and assistance;
- if the worker cannot stay active, discuss the timing of a substitute.

As sharing the diagnosis may be difficult for the worker, the EU-OSHA report on conversation starters also includes advice for workers on planning what they want to say and the topics they want to cover (EU-OSHA, 2019), for example:

- the condition that they have;
- the symptoms they experience;
- how their condition can make them feel on a bad day;
- the effects of any medication they are taking;
- tasks that they may need some help with;
- how their symptoms can vary on a daily basis;
- why they feel that, with some support, they'll be able to do their job very well;
- the adjustments or support that could be put in place to help them (thinking about themselves, their manager and their organisation).

Supportive colleagues were also found to be important in the cases, providing both physical and social support in both informal situations (e.g. grabbing a coffee) and formal workplace meetings. This suggests the need to keep the worker informed about workplace activities and events. In their research on returning to work after cancer, Crawford et al. (2016) found informal meetings and calls to be important.

Early intervention was also identified in the cases, and this included one case where interventions were made before a formal medical diagnosis of the worker's condition. In this regard, it is important to emphasise that a worker does not have to be 100 % fit to return to work (EU-OSHA, in press) and that intervening as early as possible can help to prevent the progression of MSD symptoms.

While a person need not be 100 % fit to return to work, using a graduated or phased return to work for those who had been absent was found to be beneficial in two of the cases. This was a planned process agreed with the worker. In both cases, the workers were able to work fewer hours at first and then progressively build back up to working hours that they were happy to continue with. A number of other factors should also be considered when carrying out a graduated return to work. These include ensuring that there is enough time for the process to be successful. It should be recognised that it might be necessary to decrease the hours worked if symptoms worsen, either because of the natural fluctuations in symptoms that accompany some conditions or because the returning worker has tried to do too much too soon (Crawford et al., 2016; EU-OSHA, 2016, 2018b). Furthermore, it is essential to ensure good communication between the worker and the line manager (or other company representative), with regular reviews of the return-to-work process to check that the worker is managing (EU-OSHA, 2016, 2018b).

One of the other facilitators identified in the cases was the opportunity to trial new equipment or new ways of working. It should be recognised that measures implemented may not always be successful. It is important that the worker is aware of this and is not downhearted when new devices do not work for them (EU-OSHA, 2020). Often, these are not expensive interventions and, in the case of computer equipment in particular, new purchases may be useful to other workers in the same organisation.

All the cases took place in the context of organisations that had a good health and safety system, took the promotion of musculoskeletal health seriously and showed a commitment to supporting retention at work.

### 6.3 Challenges encountered in returning to work or staying at work

Risk assessment, workplace modifications and work accommodations all require a solid OSH system and support system within an organisation, which in turn require knowledge and awareness among all parties. These may be provided at an expert level (e.g. by an occupational health or ergonomics service), but there is also the opportunity to increase knowledge and awareness among supervisors in relation to chronic MSDs. As more workers are staying at or returning to work with health problems, awareness of these issues is becoming increasingly essential.

The time taken to implement change was also seen as a challenge. In two of the cases, the process took place over several years. Early intervention is very important, but it also needs to be recognised that the process can take time.

Guidance and information were available in all the cases, and this included facilitating access to relevant expertise as well as enabling access through the internet to specific websites. The sources listed in the cases are all authoritative sources that should provide good-quality information. However, not all websites provide good-quality or up-to-date information, so there needs to be guidance on where good information is available.

### 6.4 Factors that contribute to success

A number of factors contribute to successful worker retention. These include having an understanding and supportive line manager who wants to understand the situation and work with the worker to provide solutions. This was the situation in all the cases identified and was highlighted by the workers as a positive feature.

Flexibility in relation to working time and job roles, on the part of both the organisation and the worker, was also seen as a contributing factor in success. While it is appreciated that changing job roles may not always be possible, especially in small and medium-sized enterprises (SMEs), being able to take a more flexible approach to working time and getting to medical appointments was important. The worker, as well as their employer, needs to be receptive to the idea of change, and, in several of the cases studied, that flexibility extended to other workers in carrying out work the worker could no longer do or even changing shifts to accommodate their needs. Again, communication and understanding between all parties is essential.

The worker understanding that immediate interventions may not help and that different methods may need to be tried was also a success factor. Having this adaptable and flexible mindset allows different devices or processes to be trialled but avoids undue despondency if the first measures adopted do not work. As the cases show, some of the different approaches taken to enable worker retention were simple changes to equipment. Even here, however, an apparently 'simple' solution such as finding a suitable alternative design of computer mouse may require several attempts before the best one is identified. Some alterations may also require the worker to change their habitual way of working, again pointing to the need for all parties to be flexible and adaptable.

In two of the cases, the worker searching for information themselves was also helpful, not only as it increased the worker's knowledge of their MSD and its prognosis but also in helping to find solutions that were effective for both the worker and the organisation.

### 6.5 Any particular interesting or innovative features

While having access to a restroom is a legal requirement in the EU, there is likely to be some discussion about what a restroom actually is and what it might look like in practice. Two of the workers indicated

that they had access to restrooms where they were able to stretch and exercise. In one instance, exercise balls and equipment were available. There perhaps needs to be consideration within organisations of providing a more accessible space to exercise, as this would benefit all workers.

VRS was used in two of the cases. This technology enables the user to speak to a computer, to dictate text or input data. In one of the cases, the worker did need to be moved to a room on their own to enable them to use the VRS. This might be a constraint where space is an issue. However, VRS moves with the computer, so it can be used in any quiet room in a building. It also has to be acknowledged that VRS takes time to learn, and this time has to be built in when using it as an intervention.

### 6.6 Transferability

At some level, all the cases have aspects that are transferable, such as new computer equipment, an adapted mouse or keyboard and sit–stand desks. Factors such as having a supportive manager or being able to stretch and exercise are independent of the size of the organisation. However, changing job roles is possible only in organisations where there are enough job roles to enable a change. The same can be said for flexibility in relation to working time and teleworking, as this is possible only where there are enough workers to provide cover and where the main tasks are computer-based.

## 7 Advice for micro and small enterprises based on the case studies

Although small organisations have fewer resources and less flexibility to adapt work or provide flexible working and a gradual return to work, simple steps can often be taken through discussions with the worker with the health problem to support them to continue to work. In some EU Member States employers and workers may have access to support from external return-to-work programmes or work insurance organisations. Some of the measures applied in the cases are easily transferable to small businesses, and others, particularly policy and procedural elements, could be applied in a simpler form in small businesses. The advice for small employers from the case studies is as follows.

### ▪ General approaches suggested by the case studies

- Ensure workers know that the employer has a positive attitude to valuing workers and supporting them, even if a formal policy is not in place.
- Be open to exploring ways to support someone to continue to work. Take a positive attitude by starting with the idea of 'let's see what might be possible', rather than assuming from the outset that it will be impossible. If in the end it proves too difficult to accommodate a worker, they will leave with a positive attitude, knowing that you at least tried, and other workers will see this as well.
- Discuss with the worker their problems with work, wishes and ideas for measures that could be taken. Often in smaller organisations communication is better, as everyone knows each other.
- Get simple advice from relevant non-governmental organisations, work insurance organisations, and national health and safety websites. Involve the worker in this, for example by asking the worker to find and share relevant information. Ask them if they have had any advice given to them by their medical physician, physiotherapist, etc. Check if there are any external programmes that provide support to employers and/or workers.
- Make a simple plan in writing, for example a bullet point list of steps and measures agreed on. This will help to make the approach more systematic and avoid misunderstandings. In some countries, external return-to-work programmes have the role of developing return-to-work plans.

### ▪ Simple measures and suggestions from the case studies that could be adopted

#### *Tools and equipment*

- Provide seats to rest in a standing workplace.
- Provide sit-stand desks in a largely seated workplace.
- Trial computer input devices — these can be inexpensive devices, such as a keyboard or computer mouse.
- Provide cushions for greater comfort while sitting — this could also be applicable to sitting while travelling.
- Consider changing the keyboard position, for example lowering the keyboard.
- Consider introducing a cordless headset.
- Consider introducing an adapted chair.

#### *Social/organisational*

- Allow changes to start and finish times so that the worker can avoid rush hour traffic or to allow time in the mornings for physiotherapy exercises before work.
- Allow rearrangement of working hours around medical appointments.
- Facilitate the self-management of work, including allowing the worker to control their own screen time and limit prolonged sitting and allowing breaks when required.
- Consider who is best placed to conduct a task, for example support staff trained in data entry might be able to assist with data entry tasks and colleagues could assist with lifting tasks.
- Consider minimising work travel or, if necessary, allowing the use of taxis to avoid the worker carrying luggage, booking an aisle seat to facilitate movement, providing a cushion for extra support and booking hotels with gym facilities for daily exercise/stretching routines.
- Where applicable, consider providing the worker with the opportunity to swap shifts with colleagues (as appropriate and agreed) to ensure attendance at medical appointments.
- Consider role change in discussion with the worker where appropriate and possible.

*Workplace policies and practices*

- Conduct risk assessments to identify risks and support changes.
- Provide the option of teleworking or working at home and ensure that the relevant infrastructure is in place to do this (e.g. a laptop and internet connection).
- Involve a multidisciplinary team in return-to-work or retention-at-work processes.
- Ensure line manager support, both formally (e.g. in a meeting) and informally (e.g. catching up over a coffee), whether the worker is away from work, in the process of returning to work or remains in work.
- Encourage open communication between line managers and workers so that all parties feel comfortable discussing the process.
- Provide access to a space in the workplace for stretching and exercises. This space may be multifunctional, with different people using it for different activities, for example stretching and meditating.
- Encourage all staff to minimise prolonged sitting by taking mini-breaks and stretching.
- Trial different options and tools, as there may be a need for some trial and error before finding a solution that works for the person.
- Ensure line managers have an awareness of the potential impact of chronic MSDs on their workers and understand how best to manage issues when they arise. This does not need to be an expert level of knowledge, as there are occupational health and ergonomics services that can be called on if necessary; it is more that managers need to gain a general understanding of the potential impact and how to manage issues as they arise.

▪ **Conclusions for small businesses**

There are many simple steps illustrated by the cases that even a small business can take to support an employee to continue to work. This is in line with the advice compiled and reviewed in other parts of the project (Graveling, 2019; Woolf, 2019; EU-OSHA, in press). Factors such as having a supportive manager or being able to stretch and exercise are independent of the size of the organisation. Nevertheless, the likelihood of MSEs providing support, and also finding the optimum solution, is greatly increased in circumstances where companies and employees have access to coordinated external multidisciplinary programmes and financial support, for example for making adaptations; medical treatment includes return to work and retention at work as a clinical outcome; and the company and employee have access to occupational health services, for both early detection of problems and support for making workplace adaptations. A system is needed that encourages clinicians and employers to focus on workers' capabilities and not their disabilities. The burden on small businesses can be reduced not only by providing financial and technical support but also by simplifying return-to-work systems and procedures. A focus on prevention and early intervention is paramount.

## 8 Overall conclusions

Good communication, good organisation, flexibility and an open culture in combination with new (simple or sophisticated) technology can lead to successful retention. Successful workplaces are those free from stigmatisation and barriers to workers who have a passion for their job. They provide a good health and safety culture, promote musculoskeletal health and facilitate early reporting of problems and early intervention. The eight cases presented here (see Table 5) show that simple accommodations can lead to economic benefits because workers can continue their employment and the organisations do not lose experienced workers.

**Table 5 Summary of case outcomes**

Case	Transferred to a new role	Support given and by whom	Easy or difficult to implement the advice	Transferability
1	No	Colleagues help with heavy items	Easy	Yes
2	Yes	Manager changed his job role	Easy	Yes
3	No	Colleagues keep an eye on her when she is on a ladder	Easy, but personal knowledge is needed	Yes
4	No	Colleagues and an ergonomist provide solutions	Easy, except the VRS	Yes
5	No	Colleagues and an ergonomist provide solutions	Easy	Yes
6	No	Colleagues and friends provide support	Easy, but more changes are needed	Yes
7	No	Manager approves changes and colleagues keep in contact while she is on leave	Easy, but personal knowledge is needed	Yes
8	Yes	Manager changed his job role and colleagues help him work flexibly	Easy, but the changes happened very quickly	Yes

What does this mean for the future of return to work and chronic MSDs? As with other research on return to work and worker retention, there are some key points that need to be addressed, several of which are discussed elsewhere (EU-OSHA, 2018a, 2018b, in press), including:

- good organisational culture;
- open communication;
- valued workers seen as assets not problems;
- policies available to support return to work and workplace accommodations;
- knowledge and awareness of chronic MSDs across the workforce.

To improve knowledge, it is important that more information about the impact of chronic MSDs is provided to those responsible for line-managing workers. While expertise to support individuals returning to work is available in larger organisations, there may be concerns about such availability in SMEs; thus, making line managers (in some cases the owners) aware of the issues is essential. As the cases show, many of the interventions were simple changes to keep people at work. In some countries, the infrastructure to provide relevant support to SMEs to assist them in this process already exists, and it may be worth others exploring ways of creating such support.

As noted earlier, travel to the workplace may create further challenges, and employers should be prepared, where possible, to adopt a degree of flexibility to help overcome such problems.

Looking to the future, considering universal or inclusive design for workplaces may also be helpful to ensure accessibility for everyone at the design stage of a workplace, rather than having to take remediation measures later on.

The main facilitators of success identified in this case analysis are:

- the worker having a supportive line manager and colleagues;
- using multidisciplinary support;
- having an open communication culture so that people raise problems;
- providing flexibility in working time and the opportunity to telework;
- being aware that not all interventions will work first time and that they need not be expensive or complex;
- the worker having personal agency to search for information on their health condition.

## 9 The cases

### 9.1 Case 1 — Shop worker with chondromalacia assisted by simple accommodations and supportive colleagues

**Sector:** Retail

**Job:** Shop assistant

**Size:** Medium-sized enterprise

**Country:** Greece

**Health problem:** Chondromalacia

#### *Context/background*

The company has several shops in one city that sell books and toys. Each shop has its own group of managers who plan and arrange workers' shifts. The shops are open from 09.00 to 21.00, 6 days a week, and staff are able to work full-time (an 8-hour working day) or part-time (a 4-hour working day), in line with national opening hours for urban shops. Workers in the same shop who carry out the same roles and tasks are able to exchange shifts. There is a policy whereby workers are able to change working hours from full-time to part-time whenever they need to, providing this is agreed and arranged with the manager.

#### *Demographic and health information*

The case is that of a female shop worker who is 48 years old. She has had chondromalacia in her wrist and knee joints for 2 years and is receiving medical treatment and physiotherapy for it. Chondromalacia is a general term meaning abnormal softening or deterioration of cartilage. The process of deterioration continues and worsens, but, with proper treatment, this process can be delayed or stabilised. The main symptoms include pain and swelling of the affected joints. The worker's chondromalacia in her knee is grade IV, which means that the damage is already advanced and the bone is unprotected by cartilage tissue. In addition to the chondromalacia, the worker is also experiencing hypothyroid problems, although these do not particularly affect her work.

The worker has received both medical treatment and physiotherapy for the chondromalacia. The worker has not taken sick leave from her job, despite her being eligible to do so.

The main problem with chondromalacia is that it can progress and permanently damage the joints. Repetitive movements or movements that involve flexion can cause more damage to the affected joints; therefore, depending on the location of the affected joints, some tasks should be modified. Prolonged standing and static positions are not recommended for the worker, and intense manual work is not good for the wrists and knees.

According to her doctors, the condition can be stabilised, and the painful symptoms can be alleviated with medication and appropriate physical exercises.

#### *Work, job and tasks*

The female worker currently works full-time (8-hour shifts) and has worked with the same organisation for 17 years. Her main tasks are providing customer support while selling items in the shop, contacting suppliers and arranging deliveries for the shop. During her working day, she is mainly standing, and she has a 30-minute lunch break and one coffee break.

One of her duties is to understand the costs of goods in the sector. For example, she must make decisions about the procurement of new items on the basis of her experience, and therefore she is required to assist with deliveries. Some tasks involve prolonged standing and carrying heavy items. During large deliveries to the store, staff are responsible for carrying items into the shop or storing them in storage areas.

## ***Process for retention at work***

The worker has stayed at work and has been able to continue working full-time in the same job. She has never wanted to give up her job. While the organisation has not implemented a flexible shift system and the worker has to work her timetabled shifts, there is the opportunity to exchange shifts with colleagues and she finds this helpful. Currently, the worker works the afternoon shift, as she prefers it; this means working 5 days a week for 8 hours per day from 13.00 to 21.00. This enables her to complete her physical exercises and attend physiotherapy appointments in the morning. This change to working afternoons was agreed with her colleagues. When her shift is on a Saturday, she works from 09.00 to 17.00.

### **▪ Support given and by whom**

The worker's GP advised that she should not carry heavy items, particularly when feeling pain in her joints. The worker discussed the problem that she has with carrying heavy items with her colleagues and the impact it could have on her chronic MSD. This resulted in an offer from all her colleagues to help when large deliveries arrive.

A stool is available to sit on in the shop, and the worker is allowed to use it when there are no customers inside. Worker. She has been given access to the employer's restroom should she feel the need to rest.

### **▪ Workplace changes**

## ***Tools and equipment***

No additional tools and equipment were provided for lifting and handling; however, the worker can ask colleagues for assistance when moving heavy items. It is unclear if lifting aids are available to workers. A stool is always in the shop and can be used by the worker when there are no customers inside.

## ***Workplace***

An existing restroom for the employer and the manager can also be used by this worker.

## ***Tasks***

While the worker is still able to continue with her work tasks, she is not obliged to perform tasks that involve lifting or carrying heavy items. Her main activities now involve light physical work inside the shop — as she is frequently changing departments, from books to toys — and carrying out customer service duties.

## ***Work travel***

The worker commutes to and from work using the bus. At the moment, she does not have any problems with using this method of transport. By working the afternoon shift, she is able to avoid busy periods such as rush hour.

## ***Working time***

The worker has changed to working the afternoon shift, which has been made possible by the employer. She is also able to exchange shifts with other workers should she need to attend a physiotherapy appointment. The opportunity to exchange shifts is available to all staff and helps the worker to continue to work.

## ***Health and safety risks identified***

There appears to be a number of manual handling risks associated with the work tasks, but at the present time these have not been assessed. However, the use of handling aids would benefit everyone in the workplace, not just the worker who is the focus of this case study.

## ***Ease or difficulty of implementing the advice***

Because the worker has been employed by the same organisation for 17 years, she has established a good and open relationship with her employer and colleagues. This has enabled her to stay at work and

to ask for help when required. She also finds the physiotherapy exercises quite easy; however, she would like to find more information regarding her MSD.

### ***Transferability***

Seeking help with work tasks from colleagues is one aspect of this case that is transferable. This is a small organisation in which an individual receives support from her colleagues when having to handle heavy items. However, it is important to highlight that no worker should be lifting heavy items without appropriate risk assessment, prevention measures and relevant equipment in place. Other factors that could be considered by other businesses include the provision of a stool to rest on during a full working shift.

### ***Lessons learned***

The lessons learned from this case include the following:

- Good communication and relationships with the employer and colleagues are important to support continued working.
- Flexibility about shifts can help a lot when a worker has to attend medical appointments, especially where this means that annual leave does not need to be used for appointments.
- Good relationships with colleagues and managers help with good communication and establishing a mature relationship.
- Access to a restroom can be beneficial for taking breaks.

In summary, some important factors in this case include good relationships with colleagues and line managers, as their support can be essential to enable a worker suffering from an MSD to stay at work.

### ***Costs and benefits***

The cost of physiotherapy is covered by the national health system, and in this case no other costs were identified. Among the benefits, it is important to underline that the worker has continued to work full-time and does not need any other financial support.

### ***Summary of changes***

The worker decided not to take sick leave, mainly because she could work around her medical and physiotherapy appointments by changing shifts. The worker is helped by her colleagues and assisted when necessary to carry heavy items.

#### **▪ References and resources**

Healthline, 'Chondromalacia', <https://www.healthline.com/health/chondromalacia-patella>

## 9.2 Case 2 — Accommodations and task changes to enable an ICT worker to manage knee osteoarthritis

**Sector:** ICT

**Job:** Technical collaboration specialist

**Size:** Medium-sized enterprise

**Country:** International

**Health problem:** Knee osteoarthritis

### **Context/background**

The case involves an information and communications technology (ICT) sector organisation that supports video conferencing and teleconferencing across the globe from three offices located in different countries. The organisation is able to offer both flexitime and teleworking to most workers, but workers in the United Kingdom who are part of the support team have to work different shifts, either 8.00 to 17.00 or 9.00 to 18.00, to ensure that support is available to clients during these hours. Outside these times, other offices in the USA and Singapore take over. One advantage of having flexibility in where work is done is that no one is stigmatised if they want to work at home. The organisation completes regular risk assessments covering all work activities, as it provides support to large international clients that require them to show that all health and safety risks when installing new equipment and supporting clients have been considered.

### **Demographic and health information**

The worker is a male ICT worker in his early 50s. He has worked for the company for the past 12 years. He was diagnosed with moderate knee osteoarthritis 2.5 years ago. This is thought to be the result of a knee injury that occurred when he was 16 while he was playing football and which resulted in an operation to remove bone fragments. He continued to play other, contactless sports until his recent diagnosis. His knee had been stable until he reached the age of 50, at which point pain, discomfort and locking of the joint started to happen. After he consulted his GP and underwent an X-ray, moderate knee osteoarthritis was diagnosed, and he has been using pain medication ever since. The worker also has asthma, but this does not interfere with his ability to work.

While the worker accepts that the knee osteoarthritis will continue to worsen over time, he has sought additional advice from the charity Versus Arthritis. The worker has also tried the Escape Pain app for self-management of symptoms and exercise. Medical treatment has continued, including physiotherapy treatment to strengthen the muscles around his knee. Furthermore, the worker is currently waiting for an appointment for 'Exercise by Prescription', which provides free access for 3 months to a local gym with support from a qualified instructor. This focuses on knee strengthening as well as ensuring whole-body exercise.

### **Work, job and tasks**

The worker is a technical collaboration specialist and his main tasks involve technical support in relation to computers and video conferencing, as well as upgrades to pre-existing networks when required. He works full-time, and before he was diagnosed with knee osteoarthritis he also worked with the installation teams that set up and build video-conferencing rooms. This involved handling large televisions and display screens, and running cables through ducting, so both manual handling and working while kneeling were involved.

### **Process for retention at work**

- **Support given and by whom**

After the diagnosis, the worker's tasks changed so that he is now completely desk-based, no longer being involved in the installation team's activities. This was negotiated with his line manager, and it was

agreed that, because of the osteoarthritis, it was sensible to reduce the physical handling aspects of the job and the amount of kneeling, especially handling items on stairs, as this could be dangerous for the worker and result in damage to the equipment. His line manager has been very supportive and has been aware of his MSD since the diagnosis. Colleagues have also been supportive in understanding the need for task changes and embedding the worker into the support team.

Since becoming office-based, he has received further training in the equipment that the organisation supports, to enable him to support clients with a variety of different ICT products.

A formal plan has not been put in place for the worker, but when the knee pain becomes too much he is able to work at home. The worker is also confident that, in the future, should knee surgery and recuperation time be required his organisation will fully support him.

- **Workplace changes**

#### ***Tools and equipment***

The desk and equipment of the worker were reviewed to ensure that they were compliant with the DSE regulations. It is important to the worker that he is able to get up and move around before the onset of pain. He has been provided with a Bluetooth headset, which allows him to talk to clients and walk at the same time. Short breaks from a seated static position are recommended for his knee, and this gives him the flexibility to move.

#### ***Workplace***

No further workplace changes were required. However, when it was decided that the worker would be working at home, consideration also had to be given to his home workplace. A docking station was provided for use at home, to enable him to link to the workplace without the need to continually use a laptop computer, and an additional keyboard and mouse, similar to those used in the office, were provided. The worker has his own computer at home and uses his own computer screens when working at home.

#### ***Tasks***

The worker's tasks have changed to remove the need for heavy physical work installing video-conferencing equipment and kneeling when running cables. The worker now has a desk-based role and is encouraged to get up and move at regular intervals, even when talking to clients.

#### ***Work travel***

The worker commutes by car, and it is a 15-minute journey each way. At the moment, he does not feel that driving is affecting his knee, but he would be concerned if he had to travel long distances.

#### ***Working time***

The worker has not changed his working hours, but he can take a more flexible approach to where he works. This includes working at home when the pain is causing problems, and this can mean a full day at home or a move between the office and his home office at lunchtime. As mentioned above, all workers in the organisation can do this, so this is not an adjustment just for the worker.

#### ***Health and safety risks identified***

While formal risk assessments are completed by the organisation, there were no additional risk assessments in relation to the workplace changes made. It was agreed that manual handling of heavy items was a risk for both the worker and the items. By changing the worker's role to an office-based role, this risk was removed. While there are still risks when working in a desk-based role, these are managed through regular assessment using the DSE regulations and by ensuring that he does not sit still for prolonged periods of time.

### ***Ease or difficulty of implementing the advice***

This case highlights the job changes that were required to enable the worker to continue his employment in a sector in which he has vast expertise. Within his organisation, different job roles are available to all workers, and this was implemented easily. This may not be so easy to do in SMEs or other organisations.

Risk assessments and prevention measures are also used regularly within the organisation to ensure that they are compliant for their larger clients; this includes assessments and measures relating to work at home. This enabled the worker to highlight risks and work on solutions with his line manager. Having assessments in place and good communication helped in this case.

### ***Transferability***

The accommodations are transferable to other companies where there are different roles available for individuals to pursue. However, there was a need for further skills training for the worker; this was provided by the organisation to enable him to take on an office-based role.

### ***Lessons learned***

The lessons learned from this case include the importance of:

- being able to have open communication when an MSD is diagnosed;
- using risk assessments and prevention measures to support role change;
- keeping change simple, such as increasing the flexibility on where an individual can work;
- understanding that every case is different and individual needs should be considered;
- a good pre-established workplace policy around teleworking and working at home, which all workers can take advantage of;
- ensuring that the equipment used for home working is compliant with the DSE regulations.

In summary, the minimal changes that have been made in this case are thanks to a pre-existing policy that enables teleworking.

### ***Costs and benefits***

The main benefit was that the worker was able to continue in his job. Although he changed job role, the organisation has benefited directly from retaining a worker who is an expert in ICT and able to train others. While the cost of the docking station at home has to be considered, this was reduced by bulk buying for all workers in the organisation.

### ***Summary of changes***

In this case, the accommodations included changes to work tasks, from installing video-conferencing equipment to an office-based role, and the introduction of simple tools such as a Bluetooth-connected headset when speaking to customers.

#### **▪ References and resources**

Escape Pain, <http://escape-pain.org/>

Versus Arthritis, <https://www.versusarthritis.org/>

## 9.3 Case 3 — Accommodations and self-managing osteoporosis for a university lecturer

**Sector:** Education

**Job:** University lecturer

**Size:** Large organisation

**Country:** United Kingdom

**Health problem:** Osteoporosis

### **Context/background**

The worker in question is a female senior lecturer in a university. The organisation is able to support its staff with flexible working, including part-time working, and it has a teleworking agreement that covers the majority of staff. The organisation also has an established return-to-work policy that involves agreeing a return-to-work plan should any individual be absent for a prolonged period.

### **Demographic and health information**

The worker is a woman in her early 50s, who has worked for the organisation for 11 years. She currently works full-time (37.5 contracted hours per week) and has a number of roles within the organisation, including lecturing, applying for research funding and carrying out research activities. Her previous roles, before she moved into teaching, included nursing.

The worker was diagnosed with osteoporosis 6 years ago. While women become more at risk of osteoporosis after the menopause, the worker also has an overactive thyroid, and this is known to be linked to an increased risk of developing osteoporosis. In the worker's case, a bone scan 6 years ago identified vertebral fractures due to osteoporosis. Osteoporosis happens because of a lack of calcium in the bones, which makes the bones more fragile. The condition is progressive, with a tendency to worsen over time. The main symptoms are bone pain, and the main risk is fracturing bones as a result of a fall or heavy lifting. New treatment and advice such as taking higher impact exercise and eating a healthy diet can prevent progression of the disorder and enable continued healthy living.

The worker is also under constant consultant care as a result of the osteoporosis diagnosis but does appreciate that she was diagnosed very early in the progression of the disorder.

### **Work, job and tasks**

The worker's main tasks involve lecturing and mentoring postgraduate and undergraduate students, guiding students and contributing to their education. She is also a programme leader responsible for a variety of research projects and for continually applying for research funding. She also contributes to the development of students' research. The majority of her tasks are office-based, with prolonged sitting and use of DSE. However, some of her teaching activities are conducted in lecture rooms, in special laboratories or out in the clinical environment.

### **Process for retention at work**

Because the worker was suffering from back pain due to the osteoporosis, she had thought about taking sick leave when she was originally diagnosed. She decided to continue working because of the demands of various ongoing projects. However, she was able to search for information about her MSD to find out how to support herself at work, and as a result she did not consider changing employment. Finding this information enabled her to consider the health impacts of prolonged sitting for people with osteoporosis, and she therefore made changes during her working day, including taking control of her computer time and ensuring regular movement during the working day.

- **Support given and by whom**

The worker sees her specialist osteoporosis consultant every 3 years and a specialist osteoporosis nurse annually. Continued support is provided by her general practitioner medical team.

In addition to adopting healthy lifestyle behaviours, the worker also found an excellent Pilates teacher, who has enabled her to increase her core strength to try and prevent future fractures. Her medical team have been impressed with Pilates as a means of increasing strength and protecting the bones from further damage.

The worker did tell her line manager about her diagnosis but has not required further input from him. Other colleagues have also been told, and because of this she is not allowed to carry heavy items. However, she reports that most of the support she receives is from family (her daughter motivates her to continue exercising and working).

- **Workplace changes**

#### ***Tools and equipment***

No particular tools were required by the worker and she continues to work with the same DSE.

#### ***Workplace***

While no workplace changes were made, the worker did highlight that she is not comfortable stretching in the open-plan office where she works. However, she does have access to a restroom and an on-site gym facility should she wish to use them.

#### ***Tasks***

There has been no need to change her work tasks, but she is more aware of activities that may put her at increased risk, such as lifting heavy items and sitting for prolonged periods. Colleagues are happy to help her with any such lifting.

#### ***Work travel***

Her work travel has been modified; she now prefers to complete her commute, which is by car, with a 10-minute walk. She achieves this by parking her car a couple of miles away from her workplace. This helps to introduce movement into her daily routine.

#### ***Working time***

The worker's working hours were not modified, and she continues to work full-time. However, she does have some flexibility in where she works and, when she can take advantage of it, teleworking (at home) enables her to work and take breaks to stretch every 30 minutes.

Her main difficulty at work is the amount of DSE work required to carry out her role. She has been self-managing screen time and has introduced regular screen breaks to ensure that she is able to move.

#### ***Health and safety risks identified***

Prolonged working with DSE has been identified as a risk factor, and recommendations have included taking control of computer time and building in rest breaks. This is supported in the organisation by the use of online risk assessments.

Heavy lifting and carrying are considered a major risk factor, so the worker seeks help if any loads need to be manoeuvred.

#### ***Ease or difficulty of implementing the advice***

While complying with the DSE regulations is important in relation to good posture and creating opportunities for movement in the workplace, the individual worker has to be able to control their work tasks and thus their screen time. For individuals using DSE, it is set down in legislation that they should take screen breaks before the onset of discomfort or fatigue. If someone feels uncomfortable, they should be able to stand up and move around.

The worker found that doing Pilates helped her, and she feels that this has been an important adjustment in her life to delay the progression of the osteoporosis. She has also increased the amount of walking she does between her parked car and her office. This has been an easy change for her to make, as the worker understands the importance of physical activity in maintaining general health.

### ***Transferability***

While the case does not involve particular workplace adjustments, it does highlight the importance of access to health care and advice in supporting workers with osteoporosis. Self-management of the worker's MSD has been helped by her having access to the correct information and seeking help from others.

### ***Lessons learned***

The lessons learned from this case include the following:

- Early access to diagnostic procedures helps people with a high risk of MSDs.
- Exercise programmes and physical activity can help in delaying the progress of osteoporosis.
- Access to a restroom may be beneficial for stretching exercises.
- Having control over work time and taking regular screen breaks are important.
- Having access to the latest scientific information and treatment is important for managing the disorder.

In summary, early diagnosis and intervention, the availability of a restroom and having control of her work tasks enabled the worker to remain in work.

### ***Costs and benefits***

The worker maintained the same work role, with no changes being made to her working hours; this was at no cost to the organisation. The organisation retained a valuable and expert worker who is involved in many professional roles in the organisation and could not therefore be easily replaced.

### ***Summary of changes***

In this case, the changes included adopting a healthier lifestyle, undertaking physical exercise, avoiding heavy lifting, and stretching and moving even in office settings.

#### **▪ References and resources**

Lydia Osteoporosis Project, 'About osteoporosis', <https://www.lydiaosteoporosis.com/about-osteoporosis>

## 9.4 Case 4 — Early intervention and accommodations for upper limb problems — research and data entry work

**Sector:** Research

**Job:** Scientist

**Size:** Medium-sized enterprise

**Country:** International

**Health problem:** Sore wrists and painful symptoms in fingers

### ***Context/background***

The research organisation in question has in-house ergonomists who carry out regular risk assessments, including for DSE work. The organisation provides sit–stand desks, restrooms and alternative equipment such as VRS, non-conventional mice, touchpads, fully adjustable chairs, and individual adjustments to chairs and desks when needs are identified through risk assessments (e.g. cushions, two or three screens, laptop raisers).

The organisation allows flexible working, including start and finish times, and teleworking, so that individuals can work at home or in other external locations. The company also offers the opportunity to use time in lieu, meaning that a worker can work more hours if there is a need to do this at a certain point and then later take this time off work.

### ***Demographic and health information***

The worker is a woman in her 60s who has worked for the same organisation for the past 10 years as a researcher and consultant. Her main tasks include data collection on site, data entry, report writing, and liaising with project leaders and study workers.

While diagnosis of her particular disorder is currently under way with the help of her GP, the main issues are sore wrists when typing and feelings of numbness and pins and needles in her fingers. The worker received an initial diagnosis of carpal tunnel syndrome. However, this has not been confirmed by further tests, and the symptoms have worsened over the past 4 months. A further issue highlighted by the worker is shoulder discomfort that has occurred over the preceding 3 to 4 years. The worker is continuing to discuss her symptoms with her GP and is seeking advice from the in-house ergonomists and a company occupational health provider.

### ***Work, job and tasks***

The worker's main job as a researcher is to analyse and evaluate research, as well as direct and conduct new scientific research. She is office-based for much of her working time. She mainly works with a computer and multiple screens for prolonged hours, and her tasks involve a lot of typing for report writing and entry of data from workplace visits into spreadsheets. However, she can manage her own workload and is actively encouraged to do so.

### ***Process for retention at work***

The worker has remained at work without taking any sickness leave. On the advice of her line manager and GP, an ergonomist carried out an additional DSE risk assessment (in addition to the regular risk assessment), which included an examination of the workplace, desk layout, postures adopted and work tasks. The work tasks that mainly cause problems are those that involve typing; however, the worker is in control of her working time and can build in breaks from typing, depending on timescales and deadlines. At times, the worker's tasks can include large amounts of data entry, and this can be to tight deadlines. The worker is able to take advantage of flexible working and thus can maintain control of when she starts and finishes work and where she wishes to work (in the office or at home). Her office workplace has been assessed under the DSE regulations, and there is a process of continuous follow-up to ensure that equipment or methods of working are not causing further discomfort.

The company has adopted flexible working for all, so there is no stigma when a worker prefers to come into the office later or earlier.

- **Support given and by whom**

The line manager has been supportive throughout the whole process of the ergonomic risk assessment and during the trial of novel equipment. The team of in-house ergonomists and the worker's line manager have been involved since MSD issues were first reported, to try to enable the employee to accomplish her work tasks in relative comfort.

The HR function in the organisation has also organised an appointment with an occupational health physician to enable a professional assessment of the disorder.

Most chronic MSDs are difficult to diagnose, and the initial diagnosis by the GP has changed, with a formal diagnosis yet to be made. Therefore, it is important, during the process of adjustment for the worker, to try out various tools and strategies.

- **Workplace changes**

#### ***Tools and equipment***

A range of different measures have been tried, including the provision of a wrist splint, which continues to be used by the worker. The worker, on the advice of the in-house ergonomists, has been provided with a range of interventions, including an upright mouse, a smaller mouse, a wrist rest (no longer used) and VRS. The opportunity to trial different items of equipment to find out if something would help was important in this case.

While VRS is a useful tool, consideration must be given to what the individual is using the equipment for. For example, VRS is not always helpful when working with data and spreadsheets. Furthermore, the location of the individual needs to be considered, for example if they are working in an open-plan office and their talking might disturb other people. In addition, the learning time for both the worker and the VRS, to ensure it works efficiently, needs to be considered.

#### ***Workplace***

As a result of a DSE assessment, the worker's desk area has been rearranged on the advice of an ergonomist, with her keyboard being positioned under the desk on a movable shelf, to allow her to sit with her feet on the floor rather than on a footrest. This was to reduce the feeling of being too high up on the seat to reach the desk surface, as she is small in stature.

#### ***Tasks***

Methods were also identified to reduce typing tasks for the worker, as these can cause discomfort. Some data entry tasks have been passed to other support staff in the organisation. This intervention was requested by HR and the worker's line manager. This has reduced the need for continuous typing under time pressure and for extended periods of time or to input data using VRS, which can be difficult.

#### ***Work travel***

The worker works flexibly, so does not need to be at her workplace for a specific time. She commutes by car but does not have any issues when driving. Travelling to external workplaces and meetings is not considered a problem or to trigger her symptoms, and for this reason no specific adjustments regarding travelling have been made.

#### ***Working time***

Working flexibly allows the worker to arrange her appointments with various specialists. Since her condition is not yet fully understood or diagnosed with certainty, it is quite important for her to be able to arrange her working time around her medical appointments.

#### ***Health and safety risks identified***

A health and safety risk identified was continuous working without breaks, and as part of this continuous typing was identified as a risk. The employee was advised to take frequent breaks and to avoid typing

when she feels pain, if possible. In addition, she was advised by the ergonomics team not to overuse her wrists and to try to use her keyboard without twisting her wrists in the horizontal plane.

### ***Ease or difficulty of implementing the advice***

The changes that have been implemented have been minimal in relation to ensuring that the worker understands she can take a flexible approach to work. They have included simple changes such as new equipment (e.g. a new mouse) and moving the height of the keyboard (e.g. the moveable shelf).

What has been more difficult has been the introduction of VRS, as how long it takes to learn how to use the software and how long it takes the software to learn the voice of the user were not anticipated. While this was a challenge, it was important to ensure that technical support was made available to the worker and that time to learn how to use the software was negotiated with the worker's line manager.

A difficulty with the workplace changes was the need for various options to be tried and tested before successful solutions could be identified. During this process, it is important to ensure that the worker is aware that the first solution tried may not be effective. Ensuring that new equipment or new desk layouts are tested by the user is important to ensure that they are effective.

### ***Transferability***

The trying out of potential solutions could be transferable. While many MSDs do not have an exact and immediate diagnosis, early intervention is important to prevent worsening of symptoms. It is important therefore to try to alleviate discomfort or pain even without a proper diagnosis, and this implies trials of different items of equipment. From the viewpoint of a small business, this need not be a wasted investment, since these tools may be used by other workers.

The process of identifying problems using the DSE risk assessment method (a requirement under the DSE regulations) and as a result of this suggesting interventions and evaluating the results (both positive and negative) is also transferable to all organisations. Taking a structured approach helps in identifying what tools or changes work and why some tools do not work.

### ***Lessons learned***

The lessons learned from this case include the following:

- Continued support from the line manager and HR is important.
- Access to ergonomics expertise informs the decisions made and the interventions trialled.
- Support measures can be put in place as soon as the worker raises the issue, whether or not there is a diagnosis.
- It was important that the healthcare professionals, HR, the line manager and the worker were able to work together to resolve issues.
- It is important to ensure that time is allocated to learning how to use new equipment.
- Trialling different items of equipment should be included in the process of accommodation.

This case teaches us that MSDs are problems that need to be addressed through a multidisciplinary approach. This includes line managers, HR, occupational health physicians and ergonomists. Good organisational support is important, and in this case the national health system was important for the worker, who was able to access help from her GP. The employee hopes to obtain a formal diagnosis soon for her MSDs and knows that her company are ready to support her with workplace accommodations.

Taking a structured approach to identifying problems, suggesting interventions and evaluating the results helps in identifying what tools or changes work and why some tools do not work.

### ***Costs and benefits***

Beyond the direct benefits of keeping an expert employee at work, the case shows that novel solutions, such as technological tools and workstation transformation, can be employed quite simply and can present an immediate and easy solution, thus enabling the employee to continue working. While some items of new equipment, such as the upright mouse and the wrist rest, were rejected by the worker, such equipment is not expensive and can be easily replaced. Some such new computer tools, for

example VRS, can be used by other colleagues, too, contributing to transforming the workplace into a more inclusive one.

The support provided by the worker's colleagues to help to ensure that data entry tasks are finished on time has also proven to be very helpful, and there needs to be organisational commitment to continuing this. Similar support is available to all within the organisation.

### ***Summary of changes***

A full DSE assessment of the workplace by in-house ergonomists and advice from an occupational physician resulted in workstation modification (lowering of the keyboard) and the introduction of new technologies, including a smaller mouse and VRS. Furthermore, the removal of high-intensity data entry work, as perceived by the worker, has reduced both the physical and psychosocial pressure on her.

## 9.5 Case 5 — Return to reception work after bone fractures due to osteopenia

**Sector:** Research and consultancy

**Job:** Receptionist

**Size:** Medium-sized enterprise

**Country:** International

**Health problem:** Osteoarthritis and osteopenia

### *Context/background*

The organisation is a research organisation that carries out research and consultancy work for a variety of clients. The organisation carries out regular risk assessments of all activities, including DSE risk assessments. The organisation provides a restroom and sit–stand workstations throughout the office building. Additional equipment, such as different designs of mouse, touchpads and equipment enabling individual adjustments, is regularly used for all workers. The organisation has a return-to-work policy for any prolonged absence, and this involves a graduated return to work over a period of weeks, building up working hours until the worker is back to full-time employment.

### *Demographic and health information*

The worker is a woman in her 60s who has worked for the same organisation for the past 5 years as a receptionist. Her work is mainly computer-based, so she spends much of her working time sitting at a workstation. The worker has had osteoarthritis and osteopenia for the past 6 years. Osteoarthritis can cause joint pain, stiffness and impaired mobility in the affected joint. Osteopenia is the stage before osteoporosis is diagnosed, when the person has lower bone density than would be expected at their age. These conditions were diagnosed before the worker was employed by the organisation. While no particular workplace problems were identified when she joined the company, a standard DSE risk assessment was carried out upon employment and repeated every second year. As a result of these standard risk assessments, the worker was provided with a new chair with a back support and armrests to help her stand up when moving away from her seat.

The worker subsequently had an accident at home in which she fractured two of the vertebrae in her back (thoracic 7 and thoracic 8), tore her ankle ligaments and stretched the cruciate ligament in her right knee. This resulted in 6 months off work. While the accident was related to the osteopenia, the recovery time and the severity of the consequences were related to other existing health conditions.

### *Work, job and tasks*

The worker's main tasks are managing the telephone switchboard and dealing with telephone enquiries. She also manages the reception email account and arranges postal and courier deliveries into and out of the business. She works at a reception desk that has had a number of changes to it over the years, to keep it up to date with the technology being used. Currently, it includes a dual-screen computer, a standard keyboard and a mouse. The phone system can be answered using a handset but more frequently the headset is plugged in and used. The worker reports that she can get up and move around between prescribed breaks (a morning tea break, a 1-hour lunch break and an afternoon tea break).

### *Process for return to work*

After the accident, the worker was away from work for a 6-month period. During this time, she recovered from the accident and, when well enough, started physiotherapy treatment. Her return to work was graduated, and she worked part-time for 1 month and 7-hour days for the following month before returning to her full-time role at 7.5 hours per day. The worker is still receiving treatment from a physiotherapist.

### ▪ **Support given and by whom**

The worker received medical support from her GP and physiotherapist in relation to pain management and joint mobility.

Both her line manager and the organisation's HR function made contact with her during her absence. This was with the aim of checking how she was, sharing news from the workplace and supporting her in her decision to return to work. The worker was also invited to all social events that the company organised during this period of absence.

Colleagues in the organisation also offered support, making regular informal contact during the period of absence.

The organisation has an ergonomics team, which evaluated and re-evaluated her workstation during the return-to-work period. It is important to understand what works and what can be done to prevent worsening of symptoms and minimise any pain and discomfort. It is understood in the organisation that a workstation assessment can be done at any time, not just during the biennial DSE assessments.

### ▪ **Workplace changes**

#### ***Tools and equipment***

Since her return to work, the worker has been using crutches, which means that she cannot carry any heavy postal deliveries. Colleagues have been drafted in to help her with these duties. When she returned to work, a risk assessment focusing on her DSE work was carried out. This identified a number of required changes, including:

- a better designed telephone headset that requires minimal hand movement when using it;
- a new footrest with a larger surface area on the horizontal plane to support her feet and legs;
- the continued use of an adapted chair;
- easier to move multi-drawers for storing personal items.

The space around the reception desk was being used to store deliveries and post. This space has been freed up to allow easier access for the worker. Deliveries are picked up as soon as possible by the responsible people to prevent any access problems for someone on crutches.

#### ***Workplace***

The reception desk in use at the present time is due to be changed, as part of a process of modernisation in the organisation. This will enable more space for the worker and allow her to change from a seated to a standing position, thus enabling some postural change during her working day.

#### ***Tasks***

Changes to work tasks have included the removal of manual handling tasks, which are difficult to carry out when using crutches. This intervention was requested by HR and implemented by the worker's line manager. It has also been recommended that the worker gets up and moves around every 30 minutes to ensure that she does not become stiff from sitting for long periods.

#### ***Work travel***

The worker drives to work on a daily basis, and, although she was not feeling particularly uncomfortable when driving, during the graduated return to work she started work later to avoid rush hour. When working her normal hours, she could spend 40 minutes driving each way. She is not required to undertake business travel.

It has also been recommended that the worker park in one of the disabled spaces in the car park, as they are the closest spaces to the building.

#### ***Working time***

The worker had a phased return to work and arranged different working times as she increased her hours. Initially, she started gradually, working up to doing a shift from 10.00 to 16.00. Now that she has

returned full-time, she works from 10.00 to 18.00. This was agreed between the worker and her line manager.

### ***Health and safety risks identified***

Health and safety risks identified were carrying items delivered by postal and courier services and preparing items to go out to the courier. There were issues around working in a restricted space, using crutches and having storage space that was difficult to access. These risks were addressed through colleagues helping with deliveries and the storage space being changed. In the longer term, a new reception desk will be provided that will be assessed to ensure it is appropriate for the worker.

Regular DSE assessments as well as more specialist assessments have ensured that the worker is able to work without pain and has access to support at all times as her health problems continue.

### ***Ease or difficulty of implementing the advice***

The implementation of the return-to-work process has enabled the worker to return to her original job with minimal changes to her work tasks. While the implementation of changes has involved specialist advice from in-house ergonomists, this has all been in the context of the DSE regulations. The measures should therefore be transferable to all organisations, but ergonomics expertise would be beneficial.

From an organisational point of view, changes were made thanks to good communication between the worker, her line manager and HR. This resulted in an agreed return-to-work plan and ensured that the worker's duties were covered by others in her absence.

The measures that were implemented to ensure a return to work included the involvement of the worker's line manager, colleagues and in-house ergonomists. The worker suggested that one of the major factors in her return was how understanding her line manager and colleagues were. Although at the moment she continues to use crutches, she hopes that she will soon be able to stop using them as she recovers.

The workplace is to be modernised, with a new reception desk, and the worker will be part of the decision-making team for this.

### ***Transferability***

A number of transferable factors were identified in this case. These include the graduated return-to-work process that was enabled by HR. Ensuring that the workplace is accessible to people using aids such as crutches could be beneficial to all workers with limitations on their movement.

### ***Lessons learned***

The lessons learned from this case include the following:

- An employee who is involved in decision-making when planning a return to work is likely to feel more confident on their return.
- Healthcare providers, HR, line managers and workers worked together to find a solution that was effective.
- Maintaining contact with the worker while she was on sick leave had a positive impact in this case and showed how valued the employee was. One of the major decisions that people make after injury is whether or not they can continue working. Feeling valued increases the likelihood of a successful return to work.
- Line managers, colleagues and HR are important actors in facilitating a successful return to work.

### ***Costs and benefits***

The worker returned to work after 6 months of absence; during this time, the organisation had to cover a second salary for a temporary receptionist. However, as a result, it has managed to retain an experienced worker. While the temporary worker was brought in through a temporary work agency, this worker will remain with the organisation for the time being, so a second job has been created.

## ***Summary of changes***

A graduated return-to-work plan was agreed by HR, the worker's line manager and the worker. A full ergonomic assessment of the workplace was carried out by in-house ergonomists and a plan for the modernisation of the work area that will involve the worker, HR and ergonomists was created.

### ▪ **References and resources**

Harvard Health Publishing, 'Osteopenia: when you have weak bones, but not osteoporosis', <https://www.health.harvard.edu/womens-health/osteopenia-when-you-have-weak-bones-but-not-osteoporosis>

UK National Health Service, 'Overview: osteoarthritis', <https://www.nhs.uk/conditions/osteoarthritis/>

## 9.6 Case 6 — Task changes for a podiatrist with neck problems

**Sector:** Public sector/health sector

**Job:** Podiatrist

**Size:** Large organisation

**Country:** United Kingdom

**Health problem:** Stiff neck, neck pain from disc herniation, vertebral pressure on the nerve

### *Context/background*

The worker works for a national health service that completes regular risk assessments for all workers in relation to safety and health. The risk assessments include assessment of DSE work and assessment of patient handling and manoeuvring using wheelchairs. The worker is currently employed part-time, working two full days a week (7.5 hours each day).

There is a flexitime agreement covering all staff, which allows staff to vary their start and finish times within certain core hours, and there is also a policy entitling staff to request reduced working hours.

### *Demographic and health information*

The worker is a woman in her early 40s who has worked for the same organisation for 16 years. During the past 8 years, she has been working with a stiff neck due to pain from her neck vertebrae. The vertebrae are irritating a nerve, and this causes tingling, pain and muscle spasms in the neck, arms and hands. While these symptoms are intermittent, they can flare up unpredictably and without a recognised trigger.

### *Work, job and tasks*

The main work tasks involve managing and handling patients. As a podiatrist, when the worker is treating patients she has to frequently bend and adopt awkward postures to reach their feet. When treatment has been concluded, the worker has to manoeuvre the patients, which can include carrying, handling and using a wheelchair. The worker also has to handle and position her own equipment when working. After treatment is concluded, the worker has to complete some computer tasks in an office environment; this takes approximately 2 hours per day. This work involves both typing and writing.

### *Process for retention at work*

The worker is currently employed part-time, 2 days per week; this decision was her choice and is not related to her MSD. After the worker received her diagnosis, she communicated it to colleagues. She receives a lot of advice from colleagues, who frequently ask her about her overall health. While working with physiotherapists, she has been shown how to carry out her work tasks by adopting neutral postures. At the moment, however, this advice cannot be fully implemented, as she is still having to bend to treat patient's lower limbs. A new, targeted plan is being prepared for implementation, at the request of her line manager and a physiotherapist, to evaluate options to enable her to continue working in comfort.

#### ▪ **Support given and by whom**

The worker's line manager maintains contact with the worker, asks about her MSD and shows a willingness to help.

As she works in a health service, workplace colleagues and friends are available to give her advice. As they are physiotherapists and physicians, she has received advice on how to perform her work tasks and minimise the negative impacts on her MSD. Colleagues also help her to manoeuvre the heavier wheelchairs that are less easily transported. This shows support from colleagues and a willingness to help.

## ▪ Workplace changes

### *Tools and equipment*

Several equipment trials were ongoing at the time of the interview for this case study. These trials were mainly for office work and included a new adjustable chair and a computer with a modified keyboard.

### *Workplace*

The workplace has not yet been modified, but there is a plan for future modifications that will enable the worker to adopt better postures and remove the need to bend to reach patients' feet.

### *Tasks*

The worker has been advised not to carry heavy items or manoeuvre wheelchairs. Her colleagues are able to offer her support to do this. Her office tasks have been modified through the use of new equipment. Support is ongoing, and further changes are also being examined, including to the work tasks and postures of the worker during treatment. Research is being carried out to find new modifications to working practice that will reduce the poor postures that currently have to be adopted.

### *Work travel*

The worker commutes by bus for 15 minutes and then walks to her workplace, which takes a further 10 minutes. During her working day, she spends approximately 45 minutes walking around as part of her normal routine. Her job does not involve travelling to anywhere apart from her workplace.

### *Working time*

The worker currently works 2 days per week (7.5 hours per day). Her choice to work part-time is a result of family obligations.

### *Health and safety risks identified*

The worker has several work tasks that may have an impact on her existing MSD. The highest postural stress is found when she is carrying out treatments on patients' feet and has to bend to reach their feet. This is where the majority of the issues have been identified, because bending her neck while treating a patient's feet can cause major discomfort.

Using a standard DSE assessment, further adjustments have been made to the office tasks that she needs to carry out, including by providing the worker with a new adjustable chair, keyboard and mouse.

### *Ease or difficulty of implementing the advice*

The worker has had good access to advice from her colleagues. Ensuring that the worker had access to an adjustable chair and different computer input devices was easy to implement. There needs to be further consideration of how the workplace can be changed with regard to her main job as a podiatrist. This may include raising patients' feet to reduce the need to adopt a poor neck posture. Discussions with an ergonomist would help with this.

### *Transferability*

The use of new equipment for office tasks is easily transferable, including the trialling of a new keyboard and mouse. The use of a new chair that complies with the DSE regulations has also been beneficial and can be transferred.

The culture that the worker works in is an open culture, where she was able to share her diagnosis with her line manager and colleagues. This has enabled her to receive formal and informal advice, as well as physical help with manoeuvring patients.

### *Lessons learned*

The lessons learned from this case include the importance of:

- having and continuing to have contact with the line manager and support from colleagues regarding MSD symptoms;
- having an open and understanding workplace culture that enables work task changes;
- trialling new devices and ways of working.

### ***Costs and benefits***

The direct benefit is that the organisation has kept an expert worker. The worker has chosen to work part-time, but this is because of family circumstances, not her MSD. Beyond the benefits of a salary, she wants to keep her job, as she really likes it, and she is optimistic about the future modifications.

### ***Summary of changes***

In this case, the changes included the introduction of a new keyboard and mouse, a new chair that is compliant with the DSE regulations and a reduced need to manoeuvre patients. In addition, further workplace changes are planned, although they have not yet been implemented.

#### **▪ References and resources**

WebMD, 'What is a herniated cervical disk?', <https://www.webmd.com/pain-management/what-is-a-herniated-cervical-disk#1>

## 9.7 Case 7 — Workplace stretching and other accommodations to enable return to work after a back problem — public administration

**Sector:** Administration

**Job:** Project manager

**Size:** Medium-sized enterprise

**Country:** International

**Health problem:** Piriformis muscle disorder

### *Context/background*

The organisation has a return-to-work policy that involves establishing a return-to-work plan and that sets out how the organisation will remain in contact with the worker during their absence. The organisation carries out regular risk assessments, including for DSE work, and provides sit–stand desks (these were introduced in a stepwise process, following the purchase of the first one to enable the return to work of a person with a lower back problem). The organisation provides alternative mouse devices, shorter keyboards and different kinds of ergonomic seating for staff members where a need is identified through risk assessment.

The organisation has a teleworking agreement (on remote work at home or elsewhere) that covers all staff and allows them to telework on a regular or irregular basis. Likewise, there is a flexitime agreement covering all staff, which allows staff to vary their start and finish times within certain fixed core hours. The organisation also has a policy allowing workers to work part-time following a health problem, for up to 6 months as part of a return-to-work process, if medically justified. In addition, staff can also request reduced working hours. The organisation has weekly lunchtime stretching classes for staff, run by a local physiotherapist.

### *Demographic and health information*

The worker is a woman in her early 60s, who has worked for the same organisation for 21 years. She has faced problems with MSDs for 7 years. The worker has piriformis syndrome with the main symptom being pain, which can be brought on by prolonged sitting, standing even for short periods of time, walking for any length of time, and lifting or carrying even relatively small weights.

Piriformis syndrome is a condition in which the piriformis muscle, located in the buttock region, spasms and causes acute pain. The piriformis muscle can also irritate the nearby sciatic nerve, causing pain, numbness and tingling along the back of the leg and into the foot. This MSD is often confused with sciatica and therefore can be difficult to diagnose. In this worker's case, when sitting in an upright position, the seat bone puts pressure on the piriformis muscle below it, which can cause the muscle to contract and result in pain.

While the condition has been gradually improving over time, the worker has been experiencing a return of symptoms, especially when she 'overdoes' something, for example exercise or sitting for too long.

### *Work, job and tasks*

The worker's main tasks are managing contracts, associated administrative tasks and desk-based research. Some international travel is involved in the job. The job involves a large amount of computer-based work. Her current role involves working 80 % of full-time hours. In general, she has control over the organisation of her own work; however, there can be busy times when the workload increases and there are fixed deadlines that must be met.

### *Process for return to work*

The worker was absent from work for 1 year because of piriformis syndrome symptoms (which were initially diagnosed as problems related to a small disc hernia). She had previously worked full-time (a

40-hour week). Following her absence, a return-to-work plan was agreed with her employer and she gradually returned to work. She first discussed her proposed return to work with her staff representative during her 1-year absence. Following this, the plans were discussed with her line manager and adopted as a formal plan. At the very beginning, for the first month or so, she worked for 1 hour at home in the morning, checking emails, followed by 3 hours in the office. During the first 6 months of the return-to-work process, she was working part-time (4 hours per day), and later her hours were extended to 80 % of full-time hours (6.5 hours per day).

#### ▪ **Support given and by whom**

Several actors were involved in supporting the return-to-work process for the worker.

The worker's line manager and the head of the organisation were helpful in supporting the phased return to work.

From the workplace, the staff representative, the worker's line manager and other colleagues maintained contact during the worker's absence, through both formal and informal meetings (e.g. meeting for coffee). These meetings enabled workplace information to be communicated to the worker and helped her to continue to feel a valued member of the team throughout the process.

An occupational health physician gave advice on the setting up and use of her workstation and facilitated the organisation's understanding of the changes required in the workplace. For example, they suggested the use of an alternative type of seat that allowed a more dynamic way of sitting, and this was purchased. Further medical support continues to be received through a sports physiotherapist who advises the worker on exercises and stretching to be performed before and during working hours, as well as other regular physiotherapy sessions to relax muscles when they become over-contracted. The worker's physiotherapist recommended a sequence of exercises to be completed in the morning, and on the physiotherapist's recommendation she starts work slightly later in the morning than normally allowed under the flexitime scheme to facilitate this.

The worker was involved in developing the plan for the return-to-work process, and she proposed when and how she would return to her previous duties.

The worker was impressed by the trust that her colleagues demonstrated to her, and the clear intention to work with her to enable her to return to work. This made her realise how important and valued her work for the organisation is. This was made evident by the continuing contact and formal and informal discussions about her needs in relation to work.

#### ▪ **Workplace changes**

##### ***Tools and equipment***

To enable the worker to avoid sitting at a computer or laptop for typing tasks, the employer provided VRS and a cordless headset. She was also provided with a dictation machine; this can be used away from the office and the recording can then be imported into a computer file using the VRS. This type of software recognises the user's voice and automatically converts spoken words into written text. The introduction of this software involves the software learning the user's voice. The benefit of the software and the cordless headset is that they can be used while sitting, standing or moving around. The worker also finds that she can dictate faster than she types, which has the added advantage of making her more productive.

The worker was provided with a seat cushion designed for wheelchair users to use when sitting. This cushion helps to relieve some of the pressure felt when sitting and can be easily moved around the office as needed by the worker. The worker had bought herself the same cushion for use at home when on sick leave, so she knew that it was effective for her. Furthermore, the worker has procured a lightweight folding 'stick stool' to perch on when she would otherwise be standing for long periods. This stick stool allows her to take the weight off her legs, for example during breaks in meetings or while queueing when travelling.

An alternative type of seat was also purchased, following recommendations from the occupational health physician, that allows a very dynamic way of sitting. This can be used for sitting or perching at her sit-stand desk. She swaps between this and her 'traditional' ergonomic chair, which helps her to vary her

postures. This same type of seating has subsequently been purchased for another person with an ongoing back problem.

The worker also initially used a watch with a vibrating alarm mechanism (marketed as a device to help children with incontinence problems or to remind adults when to take tablets) to remind her to get up every 20 minutes while sitting. She has subsequently bought herself a smartwatch that performs the same function.

Additional equipment provided by the worker included a cheap child's sloping desktop writing stand, which improves posture when writing or reading documents, and a lumbar support cushion.

Ergonomic equipment that had previously been given to this worker included a small, left-handed upright mouse, and a shorter keyboard (she is right-handed but switching to using the left hand enables a more even distribution between the use of the upper limbs).

### ***Workplace***

The main change in the workplace has been a move to a single-occupancy room so that VRS can be used in confidence and without disturbing others.

An existing restroom — for use by, for example, pregnant workers — was further equipped, including with a supplementary topper for the couch, an exercise mat and a lattice ball. The room allows space to rest and perform stretching exercises when required, and is used by other workers as well, for example if they experience back pain.

### ***Tasks***

The worker is able to continue with her work tasks, but how these tasks are carried out has been changed to avoid continuous static postures that might trigger pain. The worker is now able to move freely at her workstation, standing up and moving around whenever she experiences any discomfort. It is very important that she can get up and move every 20 to 30 minutes. It is commonly accepted that, during meetings, the worker will stand up or move around when she needs to to avoid discomfort.

### ***Work travel***

It was agreed between the organisation and the worker that business trips would be minimised, especially long-distance ones, because of the discomfort caused by sitting on aeroplanes for long periods. Where possible, she participates in external meetings by video conference, which also creates cost savings for the organisation. Learning to prepare a PowerPoint presentation with a voiceover would be another means of avoiding travel, and she would like to explore this. When she must travel, the worker is allowed to book a hotel with a fitness room so that she can perform her physiotherapy exercises in the morning. She is allowed to take taxis, if necessary, when she is on work trips. This gives her the reassurance that, if she should start to feel pain, she has a means of avoiding public transport and carrying luggage. In relation to handling luggage, she ensures that she packs lightly, taking the minimum required, when travelling. For plane trips, the worker books an aisle seat and carries a lightweight blow-up cushion and blow-up lumbar support. She can also take her folding stick stool with her. These items were identified and procured by the worker. At meetings, she prefers to sit at the back of the room, on the end of a row near the door, even if she has to present, since she needs to move around. She informs the organisers and anyone sitting next to her of this before the meeting begins.

### ***Working time***

During her phased return to work, the worker was able to progressively build up to her current working hours; she started working half-days and then increased her hours to 80 % of her full-time hours, which she feels is sustainable in the long term. The flexitime scheme allows her enough flexibility to attend physiotherapy sessions. Although she has the option of teleworking, she prefers to come into the office, as the ergonomic working conditions are better and she would have to carry a laptop to and from work to telework.

### **Health and safety risks identified**

The advice of workers in the return-to-work process, including the worker's occupational physician, line manager and staff representative, and the view of the worker herself, was that she should avoid sitting for long periods and avoid static postures by taking frequent breaks and alternating between the two types of seat. The worker has a desk-based job, in which she is free to stand up and move around whenever she feels this is necessary. She does not use the sit–stand desk for continuous standing work, but it allows her to adjust the desk to exactly the right height for comfort.

### **Ease or difficulty of implementing the advice**

In addition to receiving professional advice and advice from the company as mentioned above, the worker conducted her own research, looking at advice on patient support, disability and healthcare websites. She searched for specific equipment (on both orthopaedic equipment websites and general online purchasing websites), looking at the online reviews left by purchasers. She found it straightforward to implement the changes in the workplace. During the interview, the worker highlighted that the decision to return to work was the most important first step. Once that decision had been made, she researched information on how to support her working routine. Fundamentally, the worker felt that she was in control of the return-to-work plan, and that there was no pressure on her to return to work before she was ready. She also found the phased return to work essential, feeling that she would never have been able to make the leap straight from being off work to working full-time without the condition worsening.

### **Transferability**

The process documented is transferable, depending on the internal regulations of the organisation in question. The case demonstrates that a return-to-work plan developed with the worker and flexible working are successful tools for retaining valuable workers and not losing their expertise. These measures should be accessible to all workers who are returning to work after a period of ill health. The equipment (the stick stool, cushion and VRS) can be easily obtained and the cost is not high. However, implementing technology such as VRS does require consideration of where a person works and the possibility of disturbing others in close proximity. There is information regarding helpful tools on many different websites for those with disability, dexterity or fatigue issues. These tools are not specifically recommended for MSDs, but they can be helpful under specific circumstances, for example the cushion for improving comfort and circulation during prolonged sitting.

### **Lessons learned**

The lessons learned from this case include the importance of:

- the worker having and continuing to have contact with their line manager and colleagues;
- continued support from healthcare professionals and the worker's line manager and colleagues;
- trialling different aids and simple supports, such as cushions, document slopes and voice recognition systems;
- the worker having access to a restroom;
- the worker having control over their work time;
- an open and understanding workplace culture to aid task changes;
- a proactive approach on the part of the worker and their being supported in self-management.

The case teaches us that chronic MSDs are problems that need a combination of measures and a multidisciplinary approach, for example combining physiotherapy, occupational health and ergonomics. In addition, such cases need not only good support from the organisation but also the personal investment of the worker to find out what will work best for them and a willingness to work with others involved in the process.

### **Costs and benefits**

The worker returned to her work tasks after 1 year of absence. Since her return, both the worker and the organisation have directly benefited financially, as the organisation has not lost an expert worker and the worker is still in her paid role.

It was important to the organisation to retain a valuable worker, and most of the solutions were relatively simple and low cost.

Experience with this worker's return to work has since been used to inform the return-to-work process for a colleague, following an absence because of a broken bone. Other workers have benefited from the restroom improvements.

### ***Summary of changes***

In this case, the changes included a proper return-to-work scheme, a reduction to 80 % of full-time working hours, simple equipment, including a wheelchair cushion to reduce pressure when seated, a stick stool to avoid prolonged standing, VRS and acceptance from the worker's colleagues and others of her need to move around at regular intervals. Having the full support of colleagues encourages an attitude of wanting to return to work, which is one of the core factors for a successful return to work.

#### **▪ References and resources**

Spine-health, 'What is piriformis syndrome?', <https://www.spine-health.com/conditions/sciatica/what-piriformis-syndrome>

## 9.8 Case 8 — Job role changes and equipment accommodations for a police officer with multiple chronic MSDs

**Sector:** Public

**Job:** Police officer

**Size:** Large organisation

**Country:** United Kingdom

**Health problem:** Lower back pain, finger pain and costochondritis

### **Context/background**

The organisation in question is a public sector emergency service. The organisation has an absence management system in place that records both certified and/or self-certified sickness absences. If the sickness absence period is longer than 3 weeks, a review process is instigated. The review process was established to enable an understanding of the causes of sickness absence, and to identify the issues affecting the individual and their ability to work and what can be done to support the worker.

The organisation has a return-to-work programme in place, allows flexible working where possible and carries out frequent risk assessments, including DSE assessments.

In particular cases, such as where there are health-related issues, the organisation has a policy that enables the transfer of workers from one job role to another job role within the organisation.

### **Demographic and health information**

The worker is a male police officer in his early 50s. He has worked for the same organisation for 31 years. Approximately 10 years ago, he developed a lower back disorder, which consisted mainly of painful symptoms. This was thought to be mechanical lower back pain associated with stress, but the disorder was not properly diagnosed. More recently, his back pain has been diagnosed by the organisation's occupational health provider as sciatica or pain caused by pressure on the sciatic nerve. Despite the pain, the worker continued working and his work tasks involved working on the street (e.g. walking the beat) and wearing PPE, including a protective stab vest, which is a heavy protective tunic. Approximately 1 year ago, the worker began to suffer from costochondritis in the lower ribs and tingling and pain in the fingers. Costochondritis is a disorder that affects the cartilage of the rib joints and causes pain that can be mild to severe. The finger pain is triggered by typing.

The worker did not change or modify his work tasks as a result of the lower back pain until the costochondritis and finger pain appeared. During the years that he worked with back pain, he had several line managers who did not acknowledge the health issue, as their perception was that non-specific lower back pain does not result in serious consequences.

### **Work, job and tasks**

The worker's job role involved duties such as driving, walking the beat and inspecting, and carrying out those tasks while wearing PPE. The worker works 5 days out of 7 and is on a rotating shift system including night shifts. The worker's PPE, in particular the protective stab vest, was reported to be uncomfortable, and it restricted his mobility. In his opinion, his MSDs could be attributed to his work tasks. A risk assessment was carried out for all three health issues, and following this he was transferred to a new job role. The worker's duties have changed, as he is now office-based and does not have to wear PPE or spend long periods driving in static postures. The decision was made quickly by his line manager to change his job role, but one downside has been that he misses working with his colleagues in his previous department.

### **Process for retention at work**

Although the worker had access to sick leave and a return-to-work scheme, he chose not to use these because of perceived possible negative impacts on his career progression. Now he is office-based, he

is trialling a number of changes and modifications with different equipment. He has been given a new and different mouse and keyboard. In addition, he is working alongside a colleague, and they can both take advantage of flexitime within the shift system to ensure that all shifts are covered as necessary. One of the main changes that has been made has been in relation to the sciatic nerve pain: he has been provided with a sit–stand desk. The worker thinks that the desk in the standing position is better for him, as shifting positions between sitting and standing could disturb the sciatic nerve or his ribcage.

▪ **Support given and by whom**

The majority of changes were implemented because his line manager during the past 12 months took the issues seriously and wanted to provide effective solutions. The workplace changes were supported by the occupational health provider and senior officers within the service.

The worker has also sought information himself about his MSDs in relation to slowing the progression of disorders and improving his work tasks. In particular, he found the website of the UK National Health Service helpful and informative.

▪ **Workplace changes**

***Tools and equipment***

The worker has been provided with a sit–stand desk so that he can undertake DSE work while standing. He perceives this as the best solution for him. His job role has changed, and he does not have to wear PPE in the office and spends less time working in a vehicle. A new mouse and keyboard have also been provided, on a trial basis to find out if they work. If they do not help the worker, other equipment will be procured.

The worker does not have to wear heavy PPE now, but in addition it is important to emphasise that the organisation has replaced older anti-stab vests with new, lighter ones for all police officers.

***Workplace***

The worker's new workplace is an office environment where he is able to move around more frequently and change position. He is currently working with a colleague, and this permits them both to access flexitime.

***Tasks***

The worker's tasks are now office-based, which involves computer work and paperwork. The worker states that he has more control over his workload than he did in his previous role. He has organised his time and work tasks to be able to spread the tasks throughout the working day, to keep control of deadlines and to avoid the stress of intense working.

***Work travel***

The worker was previously commuting by car, which involved a 15-minute journey each way and long hours spent in a vehicle. He is trying to be more active and walks to work as part of his daily exercise.

***Working time***

The worker is currently working five days per week for eight hours per shift. His shifts have not changed, and he still works the night shift and other shift patterns as required. He is currently working with a colleague, and this permits them both to access flexitime.

***Health and safety risks identified***

The risk assessments carried out identified that prolonged sitting in a vehicle and wearing PPE were having an impact on the worker's MSDs. In practice, prolonged sitting in a vehicle affects the ribcage and sciatic nerve as a result of the postures adopted.

Trialling different keyboards and an alternative mouse is continuing, to try to alleviate the worker's finger pain.

### ***Ease or difficulty of implementing the advice***

The use of new equipment, including computer input devices and a sit–stand desk, has been easy to implement. Further advice sought by the worker on lifestyle, exercise, and increased walking and movement has been easy to follow, and the worker has felt a lot of benefits from changing his behaviour. Self-management of stress has also been found to be beneficial, as has the use of the sit–stand desk, in relation to back pain. The only negative factor that has been identified has been that the worker misses his former colleagues in the department he worked in before.

### ***Transferability***

The major change required here was a role change, which may not always be possible in every organisation. However, trialling modifications, such as sit–stand desks and different computer input devices, including mice and keyboards, is easily transferable to other working environments.

### ***Lessons learned***

The lessons learned from this case include the following:

- It is important not to neglect the initial symptoms and to discuss these with your line manager.
- Ensure that line managers are aware of the impact of chronic MSDs on the workforce.
- Risk assessment should be provided for PPE in terms of its impact on health, beyond the scope of protection.
- The ability to organise one's own workload can be important.
- Understanding line managers are key people within organisations for leveraging change.
- Tools such as different mouse designs and keyboards need to be trialled.
- A change in role may be required to retain a worker.

### ***Costs and benefits***

The worker continued his salaried employment and the organisation did not lose an experienced police officer. The cost of a sit–stand desk also needs to be factored in, but the benefit is having someone continue in employment pain free.

Beyond the occupational perspective, the worker now has a healthier lifestyle, and this is a benefit in his personal life too.

### ***Summary of changes***

In this case, the changes included the worker's role within the organisation being changed, trialling of tools and equipment (mouse, keyboard), and the implementation of a sit–stand desk.

#### **▪ References and resources**

UK National Health Service, 'Sciatica', <https://www.nhs.uk/conditions/sciatica/>

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## Appendix 1 — Email invitation to participate

Dear Participant [will be named]

Thank you for allowing us to contact you with regard to this project. The aim of the case study is to identify the views and experiences of individuals who have returned to work or stayed at work with a chronic musculoskeletal disorder. We want to understand better your experience of returning to or staying in work and as a first contact point we would like you to read the participant information sheet, sign the consent form and then complete the attached questionnaire if you are willing to take part in this first stage of research.

While we are recruiting 15 participants for this stage of the project, we will be inviting 10 out of this group to be interviewed in their own language by a local interviewer. You can choose where the interviews happen and if there is agreement from you and others involved in your retention at work such as your line manager or occupational health or safety, we would like to interview them too. We appreciate this may not be possible.

Should you have any further questions please contact me so I can respond to any queries. I am also happy to have a telephone conversation if that helps you.

Thank you

## Appendix 2 — Participant information sheet

### The project

The Institute of Occupational Medicine (IOM) is leading a project funded by the European Agency for Safety and Health at Work (EU-OSHA) to examine knowledge and helpful practices to support individuals with chronic MSDs to either stay in work or return to work. This project aims to communicate good practice around staying in or returning to work with a chronic MSD.

We are inviting you to participate in this study, but you do have the right to decline or withdraw at any point before or during data collection without any adverse consequences.

### What do we mean by chronic MSDs?

Musculoskeletal problems that persist for three months or more including chronic back pain or chronic upper limb disorders, as well as rheumatic diseases, degenerative conditions such as osteoarthritis or osteoporosis or non-specific pain syndromes.

### Project case studies

The aim of the project case studies is to identify the views and experiences of individuals and others such as their line manager or occupational safety and health representative involved in enabling a worker to return to or stay in work with a chronic MSD. To identify what has been most helpful and unhelpful we are looking to identify views and experiences of the practices used, and how and from where any support, advice and information were accessed.

### Why take part?

By taking part in a case study you will be helping to share good practice and show how barriers have been overcome to allow others to learn from your experiences. The output of this work will be good practice that others can learn from and adopt in their workplaces. We will feed back good practice anonymously to you and others involved in the case study.

Taking part is voluntary and consent can be withdrawn at any time. However, your withdrawal of consent will mean that we need to withdraw all participation from your case study.

### Who can take part?

Employed people affected by a chronic MSD who have been able to successfully return to or stay at work because their organisation has taken measures to support them. We will interview the individual worker and then others who are willing to be interviewed who supported the return to work. No data will be shared with your organisation from the individual interviews. We aim to identify good practices at the workplace which have enabled workers to either stay at or return to work. Any good practices identified will be shared anonymously as part of final reporting.

We aim to identify 15 potential case studies across the EU of individuals who have successfully returned to or remained in work with chronic MSDs, in the previous 12 months (Stage 1), covering representatively a range of EU-28 countries, sectors, organisation sizes and types of chronic MSD. From the 15 cases identified, 10 of these will be conducted as case studies involving the participation below (Stage 2).

### What does participation in the case studies entail?

#### Stage 1

Completion of the consent form and short questionnaire by the worker that has returned to work or stayed in work with a chronic MSD. This will be completed by 15 workers and returned to IOM researchers.

#### Stage 2

Following the short questionnaire above, 10 participants will be invited to complete face-to-face interviews to identify what has been helpful and unhelpful in the process of them returning to or staying in work with a chronic MSD. Ideally, with the agreement of the affected person, others who may have been involved in the process, if permission given by the worker, would also be interviewed. For example: line manager, supervisor, occupational physicians, safety practitioners, physiotherapists, ergonomists, human resources, trade unions or others.

Each of the interviews will be undertaken separately and will last up to 1 hour. Each interview will be audio-recorded on either a smartphone, iPad or Dictaphone. All recordings will be stored securely at IOM headquarters. The completion of the interviews for this case study work will take place between July and November 2019.

**How will the data we collect from you be treated and used?**

Any information you provide us will be completely confidential and used only for the purposes of this research study. If consent is withdrawn we will remove that participant's data from the study during data collection; as well as information from others involved in that particular case study.

The information we gather will be used to identify the views and experiences of different people involved in enabling a worker to return to or stay in work with a chronic MSD. The results of the interviews will be anonymised and collated into a case study on return to work, or on individuals staying at work with chronic MSDs, to identify good practice.

No companies, organisations or individuals will be identifiable in our results and all information we collect from you will be treated confidentially in accordance with the EU General Data Protection Regulation (GDPR) 2016, and the UK Data Protection Act (DPA) 2018. The IOM is registered (Z6005419) with the UK Information Commissioner's Office as a Data Controller and has implemented the appropriate technical and organisational measures to ensure that we comply with our GDPR obligations.

We will provide a summary of good practice to participants as well as final project outputs to help ensure sharing of good practice.

Further information on how IOM processes personal data is available from the Privacy Policy on our website (<https://www.iom-world.org/privacy-policy/>)

For further information, or to identify your interest in taking part, please contact:

**Name:**

Tel:

Email:

## Appendix 3 — Confidential pre-interview questionnaire

The Institute of Occupational Medicine (IOM) is leading a project funded by the European Agency for Safety and Health at Work (EU-OSHA) to examine knowledge and helpful practices to support individuals with chronic MSDs to either stay in work or return to work.

Currently we are carrying out case studies, for which you have expressed an interest in taking part.

As part of this case study we are asking individuals to complete a short pre-interview questionnaire. The aim of this is to gather information about your experience of chronic MSDs and work before we complete an interview with you about your experience of returning to work or continuing to work with a chronic MSD.

The results of the case study questionnaire and interviews will be anonymised and collated into a case study on return to work or staying in work for individuals with chronic MSDs.

### How will the questionnaire data we collect from you be treated and used?

Any information you provide us will be completely confidential and used only for the purposes of this research study.

The information we gather will be used to identify the views and experiences of different people involved in enabling a worker to return to or stay in work with a chronic MSD. The results of the interviews will be anonymised and collated into a case study on return to work, or retention of individuals at work with chronic MSDs, to identify good practice.

No companies, organisations or individuals will be identifiable in our results and all information we collect from you will be treated confidentially in accordance with the EU General Data Protection Regulation (GDPR) 2016, and the UK Data Protection Act (DPA) 2018. The IOM is registered (Z6005419) with the UK Information Commissioner's Office as a Data Controller and has implemented the appropriate technical and organisational measures to ensure that we comply with our GDPR obligations.

Further information on how IOM processes personal data is available from the Privacy Policy on our website (<https://www.iom-world.org/privacy-policy/>). We would be grateful if you could complete the attached pre-interview questionnaire — it should take only a few minutes — and then return it directly to the project team using either email or scanning and returning the document to us. We can also offer a password protected Word document if you prefer. If there are any questions you would prefer not to answer then please feel free to leave them blank.

As mentioned in the consent form you do not have to complete the questionnaire and are free to withdraw from the study at any time. If there are any questions below that you would prefer not to answer, then please leave them blank.

### Your organisation

What is the size of your organisation? Large, > 500 employees/Medium, 50-499 employees/Small, < 50 employees

What sector do you work in? (e.g. agriculture, services, manufacturing, healthcare)

What country do you work in?

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### Your work

What is your current job title/position?

Please give a brief description of your current position/work tasks (please identify if this is manual, physical, office based or sedentary).

What is the nature of your current work? (Please identify all that apply.) Full time/Part time/Shift work/Night work

How many years have you worked for the company?

Is this job a permanent job or a fixed-term contract?

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### Your MSD experience

What type of chronic MSD have you been diagnosed with or experiencing?

What treatments are you receiving (for example physiotherapy etc.)?

How many years have you worked with this musculoskeletal condition?

Do you suffer from any other related health conditions?

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### Other Support

Does your organisation have a return-to-work programme?

Is flexible work available to you?

Are you able to work from home (telework?)

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## Appendix 4 — Consent form for questionnaire

I understand that the study aims to examine knowledge and improve access to communication around the key issues in supporting individuals with chronic MSDs to either stay in work or return to work.	<input type="checkbox"/>
I have read the information sheet, which provides an outline of this study. I have had the opportunity to raise and discuss any questions via email or telephone, and these have been answered to my satisfaction.	<input type="checkbox"/>
I understand that any identifiable information collected about an individual or company will only be available to the project team and will be anonymised in the results of the study.	<input type="checkbox"/>
I understand that I am completely free to withdraw myself from the study, or any part of the study, at any time and without giving reason.	<input type="checkbox"/>
I agree to take part in the survey and be contacted about the second stage of the research.	<input type="checkbox"/>

I hereby fully and freely consent to participate in the study.

Name (please print): .....

Signature: .....

Date: .....

I confirm that I have explained to the participant named above the nature and purpose of the interview.

Signature of researcher: .....

Date: .....

## Appendix 5 — Interview pro forma for workers with chronic MSDs

Introduction by interviewer

Remind the participant that any information they share with you will remain confidential.

If during the interview process there are any questions you would prefer not to answer or are unaware of the answer to, please indicate this to the interviewer and they will move on to the next question.

### Your MSD experience

1. How long have you been working with a chronic MSD?
2. Have you experienced symptoms that prevent you from working?
  - a) Prompts; description of disorder, symptoms, impact on work and getting to work — your experience of working with a chronic MSD.
3. Do any other medical conditions impact on your ability to work?
  - b) If so, did the other condition play a role on the choices made in your workplace?
4. Were there particular aspects of your job that you found difficult whilst working with a chronic MSD?
  - c) If yes, please provide detail.
5. How do you travel to/from work?
  - d) Car, as driver
  - e) Car, as passenger
  - f) Train
  - g) Walk
  - h) Bus
  - i) Bicycle
  - j) Motorbike/Scooter
  - k) Other
6. How long does your commute take? (hours/minutes)

### Context and background

7. Were you away from work, or did you continue to work with chronic MSDs?
  - a) If you were away from work, what was the total amount of time you were away?  
\_\_\_\_\_years \_\_\_\_\_ months
  - b) If you continued to work, please describe the work hours, tasks, etc.

### Occupational safety and health risks identified

8. Were any occupational safety and health risks identified in relation to your chronic MSD?
  - a) If yes, when were these risks identified?
  - b) If yes, how were these risks identified?
  - c) If yes, which of the following were involved in identifying the occupational safety and health risks:
    - i. Manager
    - ii. Occupational health professionals
    - iii. Doctor
    - iv. Physiotherapist
    - v. Ergonomist
    - vi. Complementary therapies providers

- vii. Safety reps/TU reps
- viii. Other (please specify)

## Organisation and/or workplace adjustments made

### ▪ Planning adjustments

- 9. Were tasks, equipment or your workload altered?
  - a) If so, how?
    - i. Were these altered in consultation with you, their representatives and others affected?
    - ii. What other alterations were considered? Why were these not chosen?
    - iii. Were the alterations helpful?
    - iv. Did you make any adjustments yourself to how you work? (these might be formal, but also small ways to adjust the way they work to help yourself, e.g. making sure that you do not sit for longer than half an hour without getting up or bringing a cushion to work)
- 10. Were temporary measures agreed? (e.g. reduced hours to avoid peak travel times, lighter duties)
  - a) If yes, what did this include?
- 11. Were permanent measures agreed? (e.g. introducing lifting aids to reduce manual handling)
  - a) If yes, what did this include?

### ▪ Using professional advice/services

- 12. Which of the following professionals/services were involved/consulted in planning adjustments:
  - a) Manager
  - b) Occupational health professionals
  - c) Doctor (Occupational Physician)
  - d) Physiotherapist
  - e) Ergonomist
  - f) Complementary therapies providers
  - g) National/regional return to work schemes
  - h) Insurance organisations
  - i) Other (please specify)
- 13. Was advice/support provided by the relevant above professionals?
  - a) If yes, what did this advice/support involve?
  - b) Was this support funded by the employer (or others such as social insurance, government funding or self-funding)?
  - c) At what stage were they involved?
- 14. Was guidance/guidelines used to direct the workplace changes or adjustments?
  - a) If yes, what did this involve?

## Questions for individuals who returned to work (e.g. had time off work but returned to the same employer)

### ▪ Keeping in contact

- 15. Was contact made? (e.g. while away from work)
  - b) If yes, who made the contact?
  - c) If yes, how was contact made?
    - I. Email
    - II. Phone
    - III. Letter
    - IV. Visit
    - V. Other (please specify)
  - d) If yes, what was the nature of this contact?
  - e) If yes, was this contact helpful for you? What aspects were helpful, what aspects were less helpful?

▪ **Agreeing a return to work plan**

16. Was a return to work plan agreed by those involved?
  - a) If yes, was this a formal or informal work plan?
  - b) If yes, what did this plan include?
  - c) If yes, who was involved in making this plan?
17. Was a risk assessment or evaluation carried out during the return to work process?
  - a) If yes, what did the risk assessment cover, for example physical hazards or psychosocial risks?
  - b) If yes, who undertook this risk assessment?

▪ **Coordinating the return to work process**

18. Was there a coordinator or case manager for the return to work?
  - a) If yes, what is their role in the organisation?
19. Did contact continue when you had returned to work? (e.g. regular discussions and reviews)
  - a) If yes, are there meetings about the return to work process?
    - I. Are these formal or informal meetings?
    - II. Who is involved?
    - III. Are actions distributed?
    - IV. How frequent are these meetings?
20. Was the return to work process reviewed to ensure actions had been effective?
  - a) If yes, how frequent is this?

**Questions for individuals who stayed at work (e.g. adjustments have been made but they have not taken any time off work)**

21. Have you ever considered taking a long absence from work?
  - a) If yes, why did you stay at work?

▪ **Contact**

22. Who did you first contact at work about your chronic MSD(s)?
  - a) Who was this with?
  - b) What did this contact involve?
23. Was there a continuation of contact/communication after you first made contact about your chronic MSD? (e.g. after agreeing to stay at work)
  - a) If yes, who made the contact?
  - b) If yes, how was contact made?
    - Email
    - Phone
    - Letter
    - Visit
    - Other (please specify)
  - c) If yes, what was the nature of this contact?
  - d) If yes, was this contact helpful for you?

▪ **Agreeing a plan to support your continued working**

24. Was a plan agreed for you to stay at work?
  - a) If yes, was this a formal or informal work plan?
  - b) If yes, what did this plan include?
  - c) If yes, who was involved in making this plan?
25. Was a risk assessment carried out during the continuation of work?
  - a) If yes, what did the risk assessment cover (e.g. physical hazards or psychosocial risks)?
  - b) If yes, who undertook the risk assessment?

▪ **Coordinating the process**

26. Was there a coordinator or case manager?

- a) If yes, what is their role in the organisation?
- 27. Was contact maintained while changes were made?
  - a) If yes, were there meetings about proposed changes?
    - Are these formal or informal?
    - Who is involved?
    - Are actions distributed and to whom?
    - How frequent are these meetings?
- 28. Were the work or workplace changes reviewed to find out if they had been effective?
  - a) If yes, how frequently was this carried out?

## Support given and by whom

- 29. Who was involved in implementing any changes?
  - a) What is their role in the organisation?
- 30. What role did your line manager have in the process?
  - l) What support did your line manager offer you
  - m) What was positive or negative about this?
- 31. Who did you speak to for agreement of changes?
  - b) Manager
  - c) Online information
  - d) Immediate work supervisor
  - e) Union representative
  - f) Human resources
  - g) Occupational nurse
  - h) Health and safety manager
  - i) Occupational therapist
  - j) GP
  - k) Counsellor
  - l) Other (please specify)
- 32. Was support offered by colleagues/peers?
  - a) If yes, what is their role in the company?
  - b) If yes, what did this involve?
- 33. Was the support of others important for you to return to or stay in work?
  - a) If yes, who and why?
  - b) If no, who and why not?

## Outcomes/impact

- 34. What have been the impacts of any changes?
- 35. What was the timescale of any changes?
- 36. Has consideration been made of the potential for ongoing health problems (in relation to ongoing communication, evaluation, workplace accommodations, working hours, etc.)?
  - a) If yes, how?
- 37. What was the goal of the process? (e.g. return to hours previously worked?)
- 38. How do you see your situation in the future regarding working?

## Ease or difficulty of implementing the advice

- 39. Did you find it easy or difficult to put into practice any advice provided?
  - a) If easy, why was it easy?
  - b) If difficult, why was it difficult?

## What was helpful and unhelpful in the process?

### ▪ What was helpful?

- 40. Did you experience anything that was helpful in the process?
  - a) If yes, what were these?

b) If yes, who was involved in these?

▪ **What was unhelpful?**

41. Did you experience anything that was unhelpful in the process?

a) If yes, what were these?

b) If yes, who was involved in these?

42. In your opinion, was it difficult to implement any changes?

a) If yes, please provide detail.

▪ **Factors that contributed to success**

43. What do you think has been most important, or contributed most to the success of you being able to return to or stay in work (for example, specific adjustments or good practice or support from someone)?

a) Please provide details.

44. In your opinion, was the process on this occasion appropriate?

a) If yes, why do you think it was appropriate?

b) If no, why do you think it was not appropriate?

45. What was the biggest influence on your decision to stay at work?

## Transferability

46. Do you think this process is transferable to other individuals/companies?

a) If yes, who and what types of companies/sectors?

b) If yes, what are the main learning points?

c) If no, why not?

## Costs and benefits (if measured)

47. Were there any costs involved in the process? (quantitative and/or qualitative)

a) If yes, please provide detail.

48. Were there any benefits to the process? (quantitative and/or qualitative)

a) If yes, please provide detail.

## Further relevant information

49. Have there been any unintended consequences (positive/negative) identified after the change to the workplace or work process?

a) If yes, please provide detail.

50. Did you seek information independently about the return to work or staying in work process? If yes, where from:

a) Online information (please specify website/organisations)

b) Immediate work supervisor or line manager

c) Union representative

d) Human resources

e) Occupational nurse

f) Health and safety manager

g) Occupational therapist

h) GP

i) Counsellor

j) Other (please specify) \_\_\_\_\_

51. Was it easy to obtain the information on return to/remain in work with chronic MSDs?

a) If yes, what made this easy?

52. Are you aware of any external sources of information on return to/remain in work with chronic MSDs?

a) If yes, which sources?

## Appendix 6 — Consent form for interview

I understand that the study aims to examine knowledge and improve access to communication around the key issues in supporting individuals with chronic MSDs to either stay in work or return to work.	<input type="checkbox"/>
I have read the information sheet, which provides an outline of this study. I have had the opportunity to raise and discuss any questions via email or telephone and these have been answered to my satisfaction.	<input type="checkbox"/>
I understand that the information gathered will be used to identify the views and experiences of different people involved in enabling a worker to return to or stay in work with a chronic MSD. The results of the interviews will be anonymised and collated into a case study to identify good practice.	<input type="checkbox"/>
I understand that any identifiable information collected about an individual or company will only be available to the project team and will be anonymised in the results of the study.	<input type="checkbox"/>
I understand that I am completely free to withdraw myself from the study, or any part of the study, at any time and without giving reason.	<input type="checkbox"/>
I agree to volunteer as an interviewee for the case study described in the information sheet.	<input type="checkbox"/>

I hereby fully and freely consent to participate in the study.

Name (please print): .....

Signature: .....

Date: .....

I confirm that I have explained to the participant named above the nature and purpose of the interview.

Signature of researcher: .....

Date: .....

**The European Agency for Safety and Health at Work (EU-OSHA)** contributes to making Europe a safer, healthier and more productive place to work. The Agency researches, develops and distributes reliable, balanced and impartial safety and health information and organises pan-European awareness-raising campaigns. Set up by the European Union in 1994 and based in Bilbao, Spain, the Agency brings together representatives from the European Commission, Member State governments, employers' and workers' organisations, as well as leading experts in each of the EU Member States and beyond.

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