

## Information sheet: Joint Occupational Safety and Health Objective 2013 – 2018 "Reduction in work-related health hazards and musculoskeletal disorders"

### Background

Illnesses and disorders of the locomotor apparatus are some of the most frequent health problems that occur. It is therefore essential to reduce the relevant load situations especially in view of the longer-term safeguarding of work ability and employability given the conditions of the demographic change. In view of the still high proportion of musculoskeletal disorders (MSDs) among the factors causing incapacity to work, companies also have a pronounced economic interest in this.

The subject is also of key importance for workers. Illnesses and complaints of the locomotor apparatus are among the most frequent and – if they become chronic – one of the most painful health problems.

Working conditions play an important role in the occurrence and progress of musculoskeletal disorders. Inappropriate strains on the musculoskeletal system arise, among other things, from lifting and carrying heavy loads, from constrained postures and vibrations as well as physically one-sided work or work with little movement (e.g. performing an activity continuously sitting or standing) or work design with little movement. In this context, the combination with inappropriate mental loads, triggered by work intensification, time pressure, limited scope for action or a lack of social support can result in an increased risk.

Complaints and diseases of the musculoskeletal system can be efficiently influenced by measures of circumstantial prevention (ergonomic and ageing-appropriate work design) and behavioural prevention (health promotion activities).

### Working conditions

In the modern world of work, numerous working conditions result in various occupational strains on the musculoskeletal system.

According to a survey of the Federal Institute for the Vocational Education and Training (BIBB) and the Federal Institute for Occupational Safety and Health (BAuA) in 2005/06<sup>1</sup>, about a quarter (7.6 million) of all workers frequently still move heavy loads at work; agricultural occupations, transport and warehouse jobs, food occupations, certain metal, care and health occupations, but construction and related occupations in particular are affected to an above-average extent.

4.8 million workers work in constrained postures (bent over, squatting, on the knees, above the head), roughly half of them finding this burdensome.

Another problematic aspect is the high proportion of people whose daily lives are dominated by an increasing lack of movement (e.g. school pupils or workers at VDU workstations) and/or one-sided load situations, e.g. through prolonged standing or sitting without effective breaks. 18.8 million workers stand while working. About a quarter of them feel stressed as a result. In the case of seated activities (17.7 million workers), the number of those who feel stressed is 20%.

These high workload levels are also confirmed by the results of the company and worker survey<sup>2</sup> conducted by TNS-Infratest as part of the evaluation of the Joint German Occupational Safety and Health Strategy (GDA).

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<sup>1</sup> BIBB/BAuA worker survey 2006 & Arbeitswelt im Wandel, edition 2011, BAuA

<sup>2</sup> Company and worker survey as part of the GDA umbrella evaluation, results not yet published, contracting authority: General Office of the National Occupational Safety and Health Conference (NAK) at the Federal Institute for Occupational Safety and Health (BAuA)  
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21% of the companies and 22% of the workers indicated that they suffer from load situations due to activities with little movement. Roughly one quarter of the workers and 19% of the companies were subjected to load situations owing to heavy physical work.

The proportion of children and young people with MSDs is also considerable. While the proportion of abnormal MSD findings in the school entrance examination is still roughly 8%<sup>3</sup>, the number of young people with MSDs rises considerably with age. About 39% of the 12-17-year olds exhibit such strong MSD deficiencies that there is a need for intervention according to a study in Saarland.<sup>4</sup> The cause of these disorders is largely due to an undemanding activity through a lack of movement.

Furthermore, there is a volume of work-related psychosocial risk factors which are linked to back pains that should not be underestimated. This includes a fast work pace, no control over one's own working conditions, monotonous activities, gratification crises, a lack of feedback, little support from colleagues and supervisors, social conflict at the workplace and resulting job dissatisfaction<sup>5</sup>.

### **Absenteeism and costs**

Work-related musculoskeletal disorders cause the highest direct costs (costs of treating the illness) and indirect costs (loss of productivity due to incapacity to work), and for years they have been top of the list of statistics of days lost due to illness according to diagnosis groups.

Musculoskeletal disorders accounted for 95 million days lost due to illness in 2010; that is just under one quarter (23.3%) of the total number of days lost. The resultant loss of production totalled €9.1 billion in 2010.

In the same year, a good 26,000 people retired prematurely owing to MSDs, that is roughly 15% of all early retirements attributable to health. Musculoskeletal diseases continue to be the second most common cause of early retirement.<sup>6</sup>

### **Activities of the Joint German Occupational Safety and Health Strategy**

The reduction of work-related health hazards and illnesses in the musculoskeletal area has already been a joint occupational safety and health objective since 2008. The activities in the period 2013 – 2018 will be based on the experience gained so far and the tools and concepts developed. Here, the GDA bodies will concentrate in particular on supporting companies and workers with the healthy design of activities with little movement involving one-sided strain, on the one hand, and activities with high physical load situations, on the other.

The overriding goal is the development of a prevention culture in companies and the promotion of the workers' health skills.

In specific terms, the number of companies with ergonomically optimised workplaces, workshops and work sequences is to be increased for example, also allowing for the aspect of ageing-appropriate workplaces. The aim is also to increase the number and quality of the

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<sup>3</sup> Rüdiger Jacob, Richard Wallraven, Reinhard Steinmeyer (2008): Zum Gesundheitsstatus von Vorschulkindern: Ergebnisse der Schuleingangsuntersuchung in Rheinland-Pfalz aus dem Jahr 2006. Publ. by the Ministry for Labour, Social Affairs, Health, Family and Women in the Rhineland Palatinate (MASGFF). Mainz.

<sup>4</sup> Ludwig, Oliver (2009): Neue Ansatzpunkte der Beurteilung von Haltungsschwächen bei Kindern und Jugendlichen. In: Die Säule 19th year, vol. 4., pp. 172 – 177 (p.175)

<sup>5</sup> Stadler, P & Spieß, E. (2009): Arbeit – Psyche - Rückenschmerzen: Einflussfaktoren auf die Beschäftigungsfähigkeit und betriebliche Präventionsstrategien; Zeitschr. f. Arbeitswissenschaften, 04, pp. 331-338. Ergonomia Verlag, Stuttgart.

<sup>6</sup> Sicherheit und Gesundheit bei der Arbeit 2010, BAuA

risk assessments for physical and mental load situations as well as to promote the take-up of prevention offers in relation to musculoskeletal disorders or complaints among the workers. Furthermore, schools as well as pupils in particular are to be sensitised to the subject of MSDs and, for example, efforts are to be made towards improving the equipment in educational facilities with ergonomic and movable furniture.

The activities are to impact on a broad basis (sector-wide) and also set focal points geared to specific target groups.

For implementation purposes, various prevention activities - campaigns, company support by the supervisory services, training courses – are to be combined and supplemented with research activities. The aim of the latter is to develop new and practicable methods for the risk assessment, e.g. for forced body postures through prolonged standing or working above the head.

In order to also reach the individual level of workers, cooperation with the trade unions and employers' associations as well as cooperation partners, including the health insurance funds, is planned.

The health insurance funds have a time-tested set of tools as well as considerable experience in the field of the prevention of musculoskeletal diseases caused by the world of work as they already set a clear focus of their activities on workplace health promotion in 2008.

Important momentum and contributions towards reducing work-related health hazards and musculoskeletal diseases are also provided by the 2013/2014 campaign of the German Social Accident Insurance (DGUV) to reduce work-related back disorders. This prevention campaign is integrated into the overall package of activities of the GDA bodies as a preliminary measure.