

*National Institute for Occupational Safety and Health (NIOSH) Publication:*

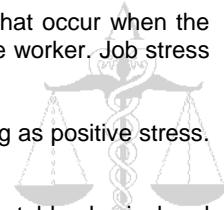
*Stress at Work*

This new reference work can be downloaded as a .pdf file from <http://www.cdc.gov/niosh>.

*Definition of work stress*

“Job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury.”

The definition of stress used here is that it is inevitably harmful, there is no such thing as positive stress. This accords with UK definitions.



It is not clear from this definition whether stress would include unpleasant or uncomfortable physical and emotional responses as distinct from harmful ones. Unpleasant and uncomfortable feelings are not harmful per se, but could be assumed by some to be precursors to harm. In our view, definitions of stress should be clear about this.

*Common Causes*

**The Design of Tasks.** Heavy workload, infrequent rest breaks, long work hours and shift work; hectic and routine tasks that have little inherent meaning, do not utilize workers’ skills, and provide little sense of control.

**Management Style.** Lack of participation by workers in decision-making, poor communication in the organization, lack of family-friendly policies.

**Interpersonal Relationships.** Poor social environment and lack of support or help from coworkers and supervisors.

**Work Roles.** Conflicting or uncertain job expectations, too much responsibility, too many “hats to wear.”

**Career Concerns.** Job insecurity and lack of opportunity for growth, advancement, or promotion; rapid changes for which workers are unprepared.

**Environmental Conditions.** Unpleasant or dangerous physical conditions such as crowding, noise, air pollution, or ergonomic problems.”

These should be familiar subjects, but with different vocabulary to UK guidelines. HSG 218 uses the following headings:

- culture,
- demands,
- control,
- interpersonal relationships,
- change,
- role clarity, and
- individual factors such as training/skills/previous episodes.

The NIOSH guide is much more specific than HSG218.

*Outcomes*

“Short-lived or infrequent episodes of stress pose little risk. But when stressful situations go unresolved, the body is kept in a constant state of activation, which increases the rate of wear and tear to biological systems. Ultimately, fatigue or damage results, and the ability of the body to repair and defend itself can become seriously compromised. As a result, the risk of injury or disease escalates.”

This is stated as fact. The conflict with the definition of stress becomes quite apparent at this point. Harm is not the same thing as risk of injury or disease, nor is a state of activation necessarily harmful.

“Evidence is rapidly accumulating to suggest that stress plays an important role in several types of chronic health problems—especially cardiovascular disease, musculoskeletal disorders, and psychological disorders.”

What it does not say is that work stress can be the sole cause. It does say that stress can be a factor when addressing problems caused by chronic health. The additional difficulties with work, caused by the combination of existing ill health and work stress, are not seriously disputed, but it is something of an extrapolation to say that the work caused the health problem in the first place.

#### **“Cardiovascular Disease**

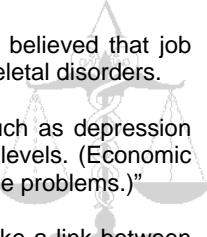
Many studies suggest that psychologically demanding jobs that allow employees little control over the work process increase the risk of cardiovascular disease.

#### **Musculoskeletal Disorders**

On the basis of research by NIOSH and many other organizations, it is widely believed that job stress increases the risk for development of back and upper-extremity musculoskeletal disorders.

#### **Psychological Disorders**

Several studies suggest that differences in rates of mental health problems (such as depression and burnout) for various occupations are due partly to differences in job stress levels. (Economic and lifestyle differences between occupations may also contribute to some of these problems.)”



To our knowledge, the studies linking control over work to heart disease actually make a link between control and blood pressure. Blood pressure can be an indicator of risk of heart disease, but this may depend on many other factors.

To our knowledge most research into musculoskeletal disorders actually shows that the rate of complaints about pain is increased in workplaces where there are several adverse psychosocial conditions. Complaints are not the same as actual harm. Rate of complaint can be moderated by many factors. Some research shows that complaints of pain occur even after allowing for any physical risk factors.

Overall it seems to us that NIOSH is making some extrapolations from what the evidence actually says, perhaps in order to emphasise their belief in the need to manage work stress.

#### *Control*

“As a general rule, actions to reduce job stress should give top priority to organizational change to improve working conditions. But even the most conscientious efforts to improve working conditions are unlikely to eliminate stress completely for all workers.”

- Ensure that the workload is in line with workers’ capabilities and resources.
- Design jobs to provide meaning, stimulation, and opportunities for workers to use their skills.
- Clearly define workers’ roles and responsibilities.
- Give workers opportunities to participate in decisions and actions affecting their jobs.
- Improve communications—reduce uncertainty about career development and future employment prospects.
- Provide opportunities for social interaction among workers.
- Establish work schedules that are compatible with demands and responsibilities outside the job.”

All seem like reasonable and laudable aims, but their effect on actual ill health outcomes is a matter for some conjecture. The effect of each or any of these measures on the health of an individual is unpredictable. However, it would seem that records showing an attempt to comply with this advice could be a useful basis for demonstrating compliance with a duty of care towards a population, but it is not clear it would be influential in dealing with individuals.

Advice on identification and elimination of risk factors follows the example of guidance produced in the UK HSG 218.

There is no advice on what to do if such interventions fail or how to rehabilitate an individual with a stress problem.