

ASTRAZENECA SAFETY, HEALTH AND ENVIRONMENT (SHE) GLOBAL STANDARD

Ergonomics and Human Factors

This Global Standard specifies the minimum standards for the identification and assessment of ergonomic hazards and other human factors, specifies the minimum standards for the management of ergonomic hazards and ensures compliance with local legislation, regulatory standards and requirements.

Who is this Standard for?
 Compliance with this Global SHE Standard is mandatory for all AstraZeneca
 Group sites and across all business functions.

1. PURPOSE

The purpose of this Standard is to:

- specify the minimum standards for the identification and assessment of ergonomic hazards and other human factors.
- specify the minimum standards for the management of ergonomic hazards in order to manage the risk of work related musculoskeletal disorders (MSDs), including the provision of a hierarchy of control for use in the control of physical ergonomic exposure, to prevent work related illness and injury.
- specify the minimum standards to ensure compliance with local legislation, regulatory standards and requirements.

MSDs are one of the most common health risks within our industry. Many factors (physical, psychological, organisational and individual) can contribute either singularly or in combination to the onset of MSDs. Some of the most common causes of MSDs are:

- workplaces, equipment and tasks not being compatible with the individual carrying out the activity leading to unnatural postures
- heavy, static or repetitive work
- mental strain/stress can cause muscular tension and exacerbate the physical impact

Minimising the risk of MSDs, by improving the consideration of the ergonomic design of workplaces, equipment and tasks, will contribute to a 'Great Place to Work'.

2. AUDIENCE AND SCOPE

Compliance with this Global SHE Standard is mandatory for all AstraZeneca Group sites and across all business functions.

The scope of this standard covers ergonomic hazards that can cause work related MSDs. See figure 1 below. People-machine interaction (ergonomics), people-people interaction and psychosocial hazards all sit under the Human Factors part of the AstraZeneca hazard tree. Ergonomics is also represented under Physical hazards in the hazard tree.

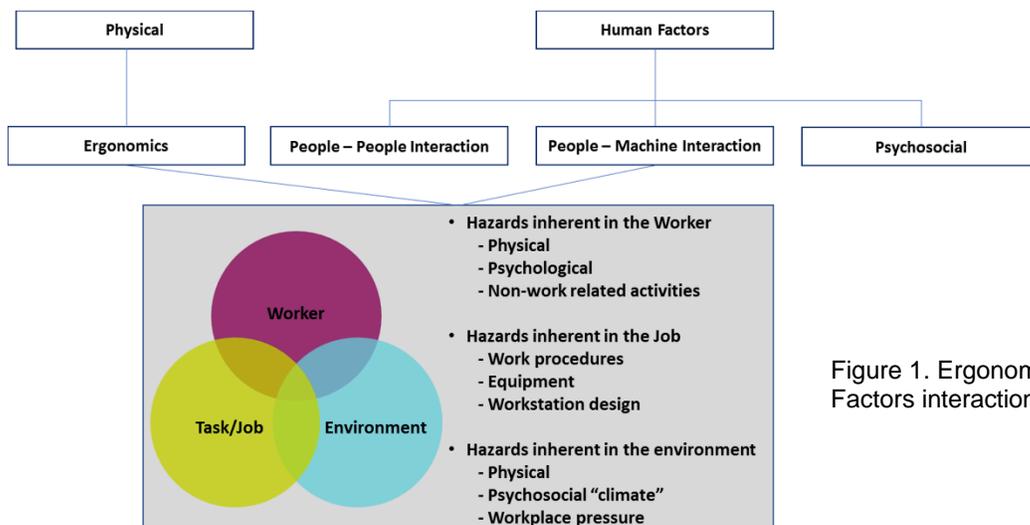


Figure 1. Ergonomics and Human Factors interaction

3. REQUIREMENTS

Sites/Functions must have local arrangements in place that meet the minimum standards set out in this document and that also satisfy any local legislation.

Risk assessment and review

Ergonomic and associated human factor hazards and risks must be considered as part of the SHE risk management process.

Equipment / machinery / vehicles / furniture etc must be suitable for the task and take account of the users. Consideration must always be given to:

- How it will be operated
- Where it will be used
- Who will be using it - including the extremes of the user group
- The duration of use
- The frequency of use

Where possible, trials before equipment purchases must be performed to ensure risk is minimized. Consider whether the individuals' requirements necessitate any specific modification to the equipment. Take into account individual factors like pre-existing conditions and extreme physical characteristics. Consideration must also be given to how cleaning, maintenance and repair work will be completed.

For both existing and new equipment / machinery / vehicles / furniture etc, ergonomic and associated human factor hazards within an area of responsibility must be identified. This includes activities such as manual handling, work with display screen equipment (DSE), animal handling, driving, laboratory work etc.

When assessing ergonomic risks the following must be considered (as set out in figure 2), alongside the human factor elements:

- Postures
- Force needed
- Rate of repetition and/or duration



Figure 2. Primary MSD risk factors

Risk assessments must be conducted by competent persons and shall be reviewed periodically and whenever there is a significant change to the task, equipment, environment as well as individual factors, and in case of an accident or incident.

Control of Ergonomic Risks

Where ergonomic and associated human factor risks have been identified and assessed, action must be taken to reduce health risks in consultation with the affected employee(s). Identified risks must be eliminated or reduced to a minimum and managed by applying the following principles.

The controls must be applied in accordance with the following hierarchy:

1. Eliminate or replace hazards with alternatives that present a lower overall risk.
2. Re-design or modify workplaces, equipment or tasks to minimise the potential for exposure.
3. Apply appropriate engineering measures, including the use of personal tools and aids, to control exposure.
4. Minimise any residual risks through the use of administrative control measures, for example procedures, instructions, training, appropriate working practice, job design, work pace, job rotation and other controls (such as exercise breaks, stretching)
5. Provide personal protective equipment (PPE, for example back spacers, straps) for use only as secondary controls.

Information, instruction and training

The line manager must ensure that the user has sufficient knowledge concerning:

- Suitable work postures and working movements in all work areas for how the activities should be undertaken.
- The risk entailed by unsuitable work postures, working movements and unsuitable manual handling.
- The proper use of technical equipment and aids.
- Signs and symptoms of MSD and what to do if they present.
- The outcome from the risk assessments.

Reporting

Employees must follow local procedures and instructions and report early symptoms of work related MSDs to their supervisor or line manager, who must refer them to an occupational health specialist, where available. If not available, advice should be sought from AstraZeneca Global SHE. All records must be kept in accordance with the Global Retention and Disposal Schedule (GRAD).

Further information

More detailed guidelines on control of ergonomic hazards are available from many sources including AZ's Ergonomic Guideline. Ergonomic training, ergonomic guides (office work, packing work, laboratory work, driving), ergonomic risk assessment tools and ergonomic good practice and other types of ergonomic information can be found on the Global SHE Ergonomic web page.

4. INTERPRETATION OF THE REQUIREMENTS

Functions/Locations/Sites may implement arrangements and allocate responsibilities to cover the above requirements on a function-wide or site-wide basis rather than leaving the execution of the above steps to individual managers

5. RESPONSIBILITIES

The AstraZeneca SHE Policy sets out the responsibilities for the line management of SHE across the company. Those responsibilities extend to the implementation of, and compliance with, this mandatory standard supporting the application of ergonomic and human factors principles and practice.

Line/Project managers are responsible for ensuring competent persons conduct the necessary ergonomic risk assessments described in this standard and that appropriate controls in accordance with the hierarchy of control are implemented to manage ergonomic and associated human factors risks to an acceptable level.

In order to be considered a competent person, the individual must have sufficient training, experience and knowledge to be able to undertake their responsibilities. The competent persons can be either AstraZeneca staff, with appropriate skills, or external contractors who have been appropriately assessed.

Employees must follow local procedures/instructions and report to management where faults and deficits could have an adverse effect on health. They have to report any pre-existing medical conditions that could be affected by use of the equipment / machinery / vehicles / furniture etc, so as to ensure the right support is offered to them. They must be aware of the ergonomic and associated human factors hazards and risks within their areas of work and the systems incorporated to control the identified risks to tolerable levels.

6. GLOSSARY

Display Screen Equipment (DSE) - A device or equipment that has an alphanumeric or graphic display screen, regardless of the display process involved; it includes both conventional display screens and those used in emerging technologies such as laptops, touch-screens and other similar devices.

Ergonomics - The science of fitting workplace conditions and job demands to the capabilities of the working population

Human factors - The science concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

Note: The terms Ergonomics and Human Factors can in many countries or situations be used interchangeably. In AstraZeneca, we see ergonomics as a sub set of Human Factors, which is reflected in our hazard tree

Manual handling activities - Any transporting or supporting of a load (including lifting, putting down, pushing, pulling, carrying) by hand or by bodily force

Work related musculoskeletal disorders (MSDs) - Disorders of the muscles, nerves, tendons, ligaments, joints, cartilage, or spinal discs that are caused by sudden or sustained physical exertion and are related to work activities