



Occupational health fundamentals

Guidance for
creating and
maintaining a
healthy work
environment

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“Nothing is more important than the safety and health of the people who work in the steel industry.”
worldsteel Board of Members

Definitions and calculations related to this publication are available in the Safety and health section of worldsteel.org.

Photos by order of appearance: BlueScope, Usiminas, Qatar Steel, Tata Steel, InfraBuild, Tenaris, and Baowu Steel.

Introduction

The World Steel Association (worldsteel) aims to provide our members and the industry with actionable recommendations and guidance to create safer and healthier workplaces.

Occupational health management is one of our four focus areas. We must take preventative measures to create and maintain a healthy work environment.

A healthy workforce contributes to happier and more engaged employees and maintains business continuity.

In its broadest sense, occupational health management is about safeguarding the overall well-being of individuals working within a company. This includes looking after their physical, mental, and social health.

Occupational hygiene specifically focuses on averting health issues in the workplace by effectively managing risks. This involves measures such as controlling employees' exposure to hazardous substances. Such exposure can lead to various health problems ranging from allergic reactions and skin or respiratory issues to more serious conditions like cancers.

The health of workers is, of course, broader, and influenced by multiple factors, including workplace conditions that can contribute to illnesses such as cancers, musculoskeletal diseases, respiratory issues, hearing loss, circulatory diseases, and stress-related health conditions.

Organisations are increasingly acknowledging how employees' psychological well-being impacts job performance, satisfaction, and the overall dynamics of the workplace.

This evolving perspective underscores the necessity for comprehensive approaches and health strategies that not only address physical health but also prioritise mental health to foster a supportive and resilient workforce.

This document is based on analysis of previous winners of worldsteel's Safety and Health Excellence Recognition Programme and data sourced from OSHA (Occupational Safety and Health Administration and IOSH (The Institution of Occupational Safety and Health)), complemented by feedback from worldsteel's members.

Six safety and health principles for the steel industry

1. All injuries and work-related illness can and must be prevented.
2. Management is responsible and accountable for safety and health performance.
3. Worker engagement and training is essential.
4. Working safely is a condition of employment.
5. Excellence in safety and health drives excellent business results.
6. Safety and health must be integrated into all business management practices.

Four focus areas



Safety Culture and Leadership



Occupational Safety Management



Occupational Health Management



Process Safety Management

Six occupational health fundamentals

01

Make a policy-driven organisational commitment to protect, support and promote workforce physical and mental health.



02

Ensuring effective controls to protect from, prevent and mitigate illnesses at work through best practices in industrial hygiene, ergonomics and work-related stress management.



03

Foster a health-conscious culture through ongoing education, training, and active workforce engagement.



04

Establish continuous programmes to promote health.



05

Create healthy workplaces by improving work process design and investing and modernising workstations, offices and common areas.



06

Ensure medical and psychological support is available.



Make a policy-driven organisational commitment to protect, support and promote workforce physical and mental health.

An organisational commitment starts with leadership.

Leaders can visibly show their commitment to occupational health within the organisation by:

- Emphasising the importance of occupational health and hygiene.
- Supporting the development and implementation of policies and action plans focused on the promotion and protection of workforce health.
- Allocating resources to deliver a holistic occupational health strategy.
- Encouraging the open discussion of psychological safety and mental health.
- Ensuring that responsibility for workforce health is explicitly allocated to a senior leader, for example, the Chief People Officer or equivalent.
- Setting an example through their own actions and priorities.



An example of a BlueScope Steel application of fundamental 1 is available on worldsteel.org. Follow this [link](#).



Ensure effective controls to protect from, prevent and mitigate illnesses at work through best practices in industrial hygiene, ergonomics and work-related stress management.

A proactive approach is important.

- Traditional approaches can be reactive, with action taken only after a worker is injured, becomes sick or an issue is identified that must be corrected.
- Finding and addressing health and hygiene hazards by proactively understanding and managing hazards before they cause illness is a far more effective approach. Doing so avoids the direct and indirect costs of worker illnesses and promotes a positive work environment.
- Pay specific attention to safety critical work, especially tasks where the ill health of an individual may compromise their ability to do that task, therefore posing a significant risk to the health and safety of others, as well as to the plant, premises and environment.
- Use leading health indicators (LHIs), objectives selected to drive action toward improving health and well-being. Most LHIs address important factors that impact major causes of death and disease, and they help organisations focus their resources and efforts to improve the health and well-being of all people.
- Ensuring organisational surveys periodically incorporate health and well-being aspects.
- Ensure monitoring of health aspects during the employee career life cycle (pre-screening checks, baseline checks, periodic checkups etc).



Putting fundamental 2 into practice:

Health evaluation of employees:

Pre-assignment, periodic medical surveillance, post-illness or post-injury review, termination or post-employment exams. The results of every evaluation should be communicated to the employee whether or not abnormalities were detected. When appropriate, follow-up evaluation and/or treatment should be arranged with the employee's own physician.

Participation in wellness programmes:

Tracking the number of employees actively participating in wellness programmes can indicate a proactive approach to health.

Stress and mental health indicators:

Tracking indicators such as stress levels, job satisfaction, and mental health-related absences can provide insights into the psychological well-being of employees.

Work-life balance indicators:

Assessing factors such as working hours, overtime, and time off can provide insights into the work-life balance of employees.

Well-being social risk factors:

Assessing psychosocial factors such as job demands, role clarity, bullying and harassment can provide insights into the risks impacting employees.

Actively manage health risks, with a focus on hazard identification and the effectiveness of controls.

- Management of occupational health hazards is mostly aligned in principle with the management of other hazards.
- Conduct comprehensive and holistic risk assessments to identify potential health and hygiene hazards and risks within the workplace, and implement effective hazard control measures to minimise or eliminate these risks.
- Health controls are often in place – but they are not always effective, nor do they address all issues, such as musculoskeletal issues, ergonomics, mental health and stress.
- Include work-related stress, which can lead to burnout and illness, considering:
 - Work pressure, which can lead to or exacerbate mental health issues
 - Relational aspects (considering management and peers)



An example of a Qatar Steel application of fundamental 2 is available on worldsteel.org. Follow this [link](#).

Foster a health-conscious culture through ongoing education, training, and active workforce engagement.



Promote a health-conscious culture.

- Promote a proactive health culture in which workers willingly participate to actively improve their own physical and mental well-being and that of their colleagues and their families.
 - Make sure that all the workers have access to the information and knowledge they need at all times.
 - Include health aspects in inductions.
 - Invest in educational and skill development programmes to equip employees with the knowledge and abilities required.
 - Provide regular and tailored training to employees on health practices relevant to their roles. Training should cover emergency procedures, proper use of protective equipment, and general awareness of workplace health hazards and occupational hygiene.
- Building a health-conscious culture requires making use of all available means to increase general awareness, knowledge and understanding of the concepts of hazards and risks and how they may be prevented or controlled.
- Ask workers for ideas on improvements and follow up on their suggestions. Provide them time and opportunities during work hours, if necessary, to research solutions and participate in health programmes.
- Engage contractors - it is important that all workers, including contractors and temporary workers, understand their roles and responsibilities and what they need to do to carry them out effectively.
- Ensure workers are encouraged and have means to communicate openly with management without fear of retaliation or discrimination.
- A trust culture sees employees confident that their colleagues, managers, and leaders are looking out for their best interests.



An example of a Tata Steel application of fundamental 3 is available on worldsteel.org. Follow this [link](#).



Establish continuous programmes to promote health.



Deploy health campaigns to support the elimination of harmful habits and to promote better choices.

- Occupational health and hygiene issues are often long term in nature.
- Many employees are ill-informed regarding the future effects of risks and exposures.
- Some employees have some information, but as the effect will appear in the future, do not recognise the risk or act to control it.
- Strong health campaigns can play an important role in helping employees understand and make changes to improve their health (for supporting those impacted by tobacco, alcohol, drugs, COVID, HIV, etc.)
- Surveys and other such tools can help understand the needs of employees and what promotion activities are best suited for the particular workers. Consider identifying Health Champions who can help drive engagement and delivery of programmes.
- Conversely, it is also important to create and promote health programmes that include incentives and perks to increase workers' physical and mental activities.
- Encourage a healthy lifestyle among employees by offering targeted wellness programmes and resources.

Putting fundamental 4 into practice:

Topics that might be addressed as part of health campaigns could include:

- Nutrition at home and work
- Workplace stress management and prevention of burnout
- Fitness activities and resources
- Hygiene and illness prevention
- Workplace hygiene
- Mental health support including mental health first aid and post-incident support
- Gender specific (women's/men's) health services
- Campaigns covering tobacco, alcohol, drugs, HIV, bullying and harassment can provide insights into the risks impacting employees.

An example of a Liberty Steel application of fundamental 4 is available on worldsteel.org. Follow this [link](#).



Create healthy workplaces by improving work process design and investing in and modernising workstations, offices and common areas.



Creating a healthy as possible workplace will improve employee health and reduce occupational health and hygiene risks.

Issues to consider include:

- Workstation design and ergonomics. Ensure that workstations and equipment are ergonomically designed to reduce the risk of musculoskeletal disorders and other physical strains
- Chemical agents and other contaminants
- Loud noise
- Vibration
- Display screen equipment ergonomics
- Extreme temperature
- Work design. Ensure adequate resources to support job demands
- Employees should be provided with proper tools and guidelines to set up their workstations correctly
- Consider ergonomics and health during the design and commissioning phase of tasks, equipment and workstations
- Ergonomic approaches need to involve workers to be effective

Ergonomics cannot be approached in isolation but must always be associated with the management of psychosocial risks and the development/maintenance of physical fitness to be effective.



An example of a Tenaris application of fundamental 5 is available on worldsteel.org. Follow this [link](#).



Ensure medical and psychological support is available.



Ensure both medical and psychological support are available to all workers.

Provide or facilitate:

- Emergency medical services
- Access to occupational and preventative health services, such as pre-employment medical examinations to check if a worker is fit for the job, robust occupational health surveillance for early detection and intervention for emerging occupational health diseases.
- Management and support of pre-existing health conditions (e.g. diabetes, obesity, cardio issues).
- Discrete and low-barrier access to counselling services and mental health first aid and support.
- Access to vaccinations, health promotion and awareness activities.



An example of a Baosteel application of fundamental 6 is available on worldsteel.org. Follow this [link](#).

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