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## **Ergonomics — General approach, principles and concepts**

*Ergonomie — Approche générale, principes et concepts*



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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 26800 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 1, *General ergonomics principles*.

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## Introduction

Human, technological, economic, environmental and organizational factors all affect the behaviour, activities and well-being of people in work, domestic and leisure contexts. The science of ergonomics has evolved from its origins in the context of work to embrace many other fields of application, such as home and leisure. However, whatever the context, the underlying principles of ergonomics remain the same, although the relative emphasis placed on them will vary. These principles are fundamental to the design process wherever human involvement is expected, in order to ensure the optimum integration of human requirements and characteristics into a design. This International Standard considers systems, users, workers, tasks, activities, equipment and the environment as the basis for optimizing the match between them. These principles and concepts serve to improve safety, performance and usability (effectiveness, efficiency and satisfaction), while safeguarding and enhancing human health and well-being, and improving accessibility (e.g. for elderly persons and persons with disabilities).

Ergonomics covers a wide range of issues, including physical, cognitive, social and organizational. These are ideally addressed within an integrated framework. A substantial number of ergonomics standards have been developed to cover specific issues and different application domains. All depend upon the basic principles and concepts that are fundamental to the ergonomics approach to design. This International Standard has been developed in order to provide an integrated framework, bringing together the basic principles and concepts of ergonomics in one document, and thus providing a high-level view of the way in which ergonomics is applied.

NOTE 1 ISO 6385<sup>[2]</sup> remains a high-level International Standard for work systems.

NOTE 2 A complete list of current published ergonomics International Standards can be accessed via [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_tc/catalogue\\_tc\\_browse.htm?commid=53348&published=on&includesc=true](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_tc_browse.htm?commid=53348&published=on&includesc=true).