

3.0 Human Engineering

3.1 General

The subject of Human Engineering covers aspects of the design that permit effective, appropriate, safe and dignified use by people including those with disabilities.

The disability standards and codes cover certain aspects of design for Access and Mobility for people with disabilities. These are often referred to in these Guidelines and should be followed in relevant areas. Human Engineering for able bodied persons also requires careful consideration.

Some of the common issues are covered in this section.

There is increased public awareness of barriers that make reasonable utilisation of facilities difficult or impossible for the physically impaired. A hospital facility will have a high proportion of occupants, patients and visitors, who are unable to function without some form of assistance. Some staff may also be impaired. To ensure minimum patient dependence on staff, consideration should be given to design provision for optimum patient independence. Consideration must be given to the wide range of disabilities including:

- Mobility impairment
- Visual impairment
- Hearing impairment.

3.1.1 *Planning*

To minimise overall costs and to avoid the need for expensive modification of finished work, initial designs shall include specific consideration of the needs of the physically impaired. The majority of requirements can be easily accommodated during the planning stage at little or no additional cost; modifications required at a later time may be prohibitively expensive or impractical.

3.1.2 *Fixtures & Fittings*

Grab rails, handrails, vertical adjustable shower supports, towel rails, soap holders, footrests and any other fixture that may be used for support, shall have sufficient anchorage and strength to resist the sustained concentrated load of a falling heavy human.

Note: This effectively means that towel rails should be designed in a similar manner and strength to grab rails

3.1.3 *Hand washing - Staff*

Location and arrangement of fittings for hand-washing shall permit their proper use and operation. Particular care should be given to the clearances required for elbow action type handles. Non-thermal transmitting standard handles are preferred, with effective finger grips. Heights are to suit the particular function, such as paediatric, disabled and standard.

Hand-washing facilities shall be securely anchored to withstand an applied vertical load of not less than 115 kg on the front of the fixture.

3.1.4 *Staircases and Ramps*

Where ramps are required for patient access, minimum gradients are to comply with the requirements of the Building Codes.

Ramps in other areas such as service roadways shall comply with good design practice and be suitable for the task. If a ramp is unavoidable, the floor covering must be carefully chosen to reduce forces required to move wheeled equipment.



The Indian Health Facility Guidelines recommends the use of **HFBS** “**Health Facility Briefing System**” to edit all room data sheet information for your project.

HFBS provides edit access to all HFG India standard rooms, departments, and more than 40 report templates.

HFBS Health Facility Briefing System



Briefing Module

The Health Facility Briefing System (HFBS) has numerous modules available via annual subscription. It suits healthcare Architects, Medical Planners, Equipment Planners Project Managers and Health Authorities.

Use the HFBS Briefing Module to quickly drag in health facility departments or pre-configured room templates from the HFG standard, edit the room features such as finishes, furniture, fittings, fixtures, medical equipment, engineering services. The system can print or download as PDF more than 100 custom reports including room data sheets, schedules, and more...

To learn more about the HFBS web-based Healthcare Briefing and Design Software and to obtain editable versions of the “Standard Components” including Room Data Sheets (RDS) and Room Layout Sheets (RLS) offered on the HFG website, signup for HFBS using the link below.

Get Started Now:
hfbs.healthdesign.com.au

- ✓ HFG India Room Data Sheets and Departments are instantly editable in the HFBS software available online in the HFBS India Domain.
- ✓ You can access hundreds of report templates to print your HFG India room data in HFBS.
- ✓ HFBS has a onetime free 3 day trial available to all new users – signup for the HFBS India Domain today.

Get Started Now:
hfbs.healthdesign.com.au



HFBS

Health Facility Briefing System

hfbsinfo.com | techsupport@healthdesign.com.au