

Housing Health & Safety

The quality of housing plays a decisive role in health. The home should provide a healthy environment as well as protection against the elements, but houses can be the source of a wide range of physical, chemical and biological hazards.

Many health problems are either directly or indirectly related to the building itself, due to the construction materials that were used and the equipment installed, or the size or design of the individual dwellings.

Healthy housing must be a comprehensive concept taking into consideration a variety of factors contributing to the quality of housing and housing environments. The housing and health regulations targets various aspects directed at controlling:

- ▲ **the immediate environment and neighbourhood** – can be a source of problems such as noise; but can also be a source of pleasure with green spaces and safe public areas for artistic reasons and for giving opportunities for a healthy lifestyle.
- ▲ **the materials used in construction** – regulations have been developed to control the quality of materials used and to prohibit the use of certain materials such as asbestos (see our Factsheets on Asbestos).
- ▲ **the design and layout of the dwelling itself** – this should ensure accessibility for specific users such as children, the elderly or those with physical limitations. The design of dwellings can affect the likelihood of accidents and unintentional injuries.
- ▲ **the amenities to be provided** – space for the preparation and cooking of food and readily accessible sanitary accommodation (at least one bathroom and toilet) are required.

- ▲ **the use and maintenance of the dwelling and its basic equipment** – availability of drinking water supply, heating facilities, appropriate ventilation, natural light and carbon monoxide/smoke detectors (though not compulsory) are important for the health of the occupants and should be made available.

Housing Health and Safety Rating System (HHSRS)

The Housing Act 2004 changed the way local authorities assess housing conditions. They now assess the conditions of properties using the Housing Health and Safety Rating System (HHSRS) – a health based risk assessment system for housing. It is a purely qualitative approach for the assessment of conditions in existing housing, and evaluating the potential effect of any faults on the health and safety of occupants, visitors, neighbours and passers-by. This system requires an assessment of the potential threat from the condition or lack of adequate facilities or amenities and includes 29 potential hazards.

Assessment

The principles which underlie it are that:

- ▲ any dwelling should be free from both unnecessary and avoidable hazards
- Where any hazards is necessary and unavoidable:
- ▲ the likelihood of an harmful occurrence and the potential harm which could result should be reduced to a minimum.

The HHSRS recommends that the first step in checking the state of a dwelling is an inspection to identify deficiencies that could cause problems for the dwelling as a whole. A deficiency might arise because of the way the dwelling was designed or built in the first place, wear and tear, lack of care and

repair over a period of time, or activities of the occupiers. As far as the HHSRS is concerned, a deficiency is important when it can be seen as able to cause harm when it results in a hazard.

When assessing a dwelling, the local authority officer should take account of

- ▲ the average likelihood for a particular hazard for that type and age of dwelling given in the main guidance
- ▲ any deficiencies which may increase the likelihood of an occurrence
- ▲ how serious the outcome of such an occurrence will be to the age group(s) most at risk

The local authority (LA) then weighs up the risk from any hazard that might affect the potential occupants.

The LA considers the most practical solution and the age of the building. It then takes the most suitable form of action which will be one of the following:

- ▲ serve an improvement notice
- ▲ make a prohibition order
- ▲ emergency action
- ▲ serve a hazard awareness notice
- ▲ demolition orders
- ▲ clearance

To prevent any of these actions, the landlord should inspect the entire property room by room to check if there are one or more of the 29 hazards and decide on remedial work to be done to reduce risks as low as reasonably practicable. The landlord should keep a record of work done and record dates when work(s) are finished, then re-inspect property and check that hazards have been removed/minimised.

Hazards

The HHSRS identifies 29 potential housing hazards. For full details of all hazards please visit this link: www.communities.gov.uk/documents/housing/pdf/150940.pdf

Of all the potential hazards, research by the Scottish Office Central

Research Unit identified the highest risks to health in housing to be associated with hygrothermal conditions (dampness, mould and cold); radon; house dust mites; environmental tobacco smoke; carbon monoxide; security and the effects of crime and lead. Other important hazards are fire, falls, heat and overcrowding.

- ▲ **Dampness and mould-** (Hygrothermal conditions): These are factors that affect thermal comfort – temperature, humidity and air movement. Inadequate heating, insulation and ventilation cause condensation, which encourages growth of mould, fungi and other microorganisms. Many moulds are allergenic and provide a food supply for house mites which are also potential allergens. At certain stages, some fungi become toxic. Mould allergy is a recognised cause of asthma. Studies have shown that damp housing can cause aches and pains, nerves, diarrhoea, headache, respiratory problems and other illnesses among children.
- ▲ **Cold:** In England, it is estimated that around 1 in 18 dwellings are below acceptable energy efficiency standards and there is evidence to suggest that vulnerability to cold is greater in homes with inadequate insulation/home heating. Around 20,000 deaths a year are attributed to the direct effects of cold – improving domestic energy efficiency and affordability of home heating will have appreciable benefits to health in terms of mortality and morbidity.
- ▲ **Radon:** is a radioactive gas which enters buildings from underlying soil and rock. When radon and its decay products are inhaled, they irradiate tissues in the body especially the lungs. This could result in lung cancer,

leukaemia and skin cancer. Radon has been estimated to be responsible for 2,500 deaths per year in the UK. Engineering solutions are possible to reduce radon levels inside the home.

- ▲ **House dust mites:** The growth of mites depends on the combination of temperature and humidity and on the age, cleaning and use of soft furnishing. Mite allergens may trigger allergic reactions such as asthma. Preventative measures include thorough cleaning.
- ▲ **Environmental tobacco smoke:** The risk of lung cancer among non-smokers passively exposed to tobacco at home is estimated to be 30% higher than the risk to non-smokers not exposed. A quarter of all lung cancers occurring in non-smokers which result in around 400 deaths per year in the UK, are attributable to ETS passive smoking. Ventilation and air cleaning devices can help with prevention.
- ▲ **Carbon monoxide:** is a colourless, odourless gas produced by incomplete fuel combustion and is extremely toxic. Most fatal accidental poisoning is due to fires, gas boilers etc. In addition to fatal poisoning, exposure can cause long term damage. Hazards can be reduced by correctly installing and maintaining cooking and heating appliances and ensuring there is appropriate ventilation.
- ▲ **Security and the effects of crime:** The risks to health from crimes in the home range from direct injury to victims during burglaries, shock and resultant depression; and for non-victims, fear of burglary particularly for women and the elderly. Some risk of crime can be alleviated by design and infrastructure improvements.

- ▲ **Lead:** The main sources of lead are: car exhaust fumes (less so these days), leaded paint and lead pipes for drinking water. There is epidemiological evidence of an adverse effect on neurological development in childhood. Subtle intellectual impairment occurs with chronic low level exposure.
- ▲ **Fire:** According to communities.gov.uk, there were around 45,000 fires in dwellings, resulting in 308 deaths and 8,900 non-fatal injuries in 2010-2011. As well as burns, deaths can be caused by gas, smoke or carbon monoxide poisoning. Sources of ignition can be cooking appliances or electrical equipment. Cookers should be sited away from flammable materials, wiring should be properly installed, maintained and regularly checked and tested, and buildings can be designed and constructed to limit the spread of fire. Smoke alarms should be installed and maintained.
- ▲ **Falls/trips:** A high proportion of home accidents are among children and the elderly (risk increases with age). In England, there are around 500 deaths, and 230,000 injuries a year from falls on the stairs. Trips accounts for 11% of non-fatal accidents and 2% of deaths in the home. Apart from increasing age, characteristics of the dwelling, poor design and maintenance is a factor in many falls.
- ▲ **Heat:** Higher indoor temperatures may carry greater risks to health and could result in heat morbidity/mortality.
- ▲ **Overcrowding:** overcrowding is thought to increase vulnerability to infections such as tuberculosis and diarrhoea.

For further information and references contact London Hazards

Factsheets online www.lhc.org.uk London advice 020 7794 5999



Hampstead Town Hall Centre
213 Haverstock Hill
London NW3 4QP
Tel: 020 7794 5999
Email: mail@lhc.org.uk
Website: www.lhc.org.uk

