

Benefits of Healthcare Carpet

Healthcare carpets are typically dense, low profile constructions with a nylon pile or use-surface, often with impervious backing and designed to withstand aggressive cleaning.

They have been used extensively in healthcare facilities for decades and are widely accepted as fit for purpose in challenging environments where there is constant pedestrian activity, large amounts of wheeled traffic, and where the safety and comfort of patients and healthcare workers is of prime importance.

Design versatility

Design changes that make healthcare facilities more attractive to hospital patients and aged care residents reduce stress, increase satisfaction with the quality of care provided and have been found to reduce recovery times and hospital stays.

With virtually unlimited choice of colours and surface textures, carpet helps to make healthcare buildings more comfortable and aesthetically pleasing environments and less institutional in appearance.

Acoustics

Carpet improves the functionality of healthcare buildings by reducing unwanted noise to more acceptable levels.

The carpet pile or use-surface virtually eliminates floor impact sounds from footfalls and dropped objects that contribute greatly to ambient noise levels in healthcare facilities.

Furthermore, carpet reduces 'reverberation' (the build-up of sound within a space due to multiple reflections from the surfaces within the room) by absorbing 15 – 35% of airborne noise compared to 5% for smooth hard flooring.

Carpet is therefore the most logical flooring choice for reducing noise in healthcare buildings to more acceptable levels.

Safe, non-slip surface

Falling injuries are a major problem in healthcare buildings, accounting for almost 40% of 'adverse events' in non-acute hospitals and more than 70% in other non-acute healthcare buildings.

A common cause of injurious falls is slippery floors caused by liquid spills, which are common occurrences in healthcare buildings.

Carpet is an inherently non-slip and cushioning floor covering. Its use in the normally dry areas of healthcare buildings helps to reduce the incidence of falls and the severity of injuries when falls occur.

Healthcare carpet has the added advantage of containing liquid spills in the pile mass until the required maintenance can be carried out. This substantially removes a significant falls risk. With smooth floors, unattended liquid spills are easily spread which increases the risk of falls occurring.



The use of carpet as a cushioning, absorbing floor covering is particularly important in aged care facilities due to the greater likelihood of the elderly falling and the increased injury consequences of such falls.

Aged care residents who fall on 'hard flooring' are more than twice as likely to sustain injuries compared to those who fall on 'soft flooring'.

For these and other reasons the use of 'force attenuating' floor covering like carpet in normally dry areas, is recommended as part of a falls prevention strategy in healthcare buildings.

Glare control

Reflected light from smooth flooring can make the surface look slippery and wet. For vulnerable groups, this visual effect can be disorientating and is a common cause of injurious falls in healthcare buildings.

Carpet's non-reflective pile use-surface substantially reduces glare problems.

Walking comfort

Cushioning and impact absorbing surfaces like carpet reduce leg fatigue which is important for healthcare workers who spend up to 80% of their time at work either standing or walking.

Research conducted in the US shows that heel strike impact can be significantly reduced with carpet compared to hard floor finish.

In addition, elderly patients have been found to walk more efficiently and feel more secure walking on carpet than on vinyl because of the superior traction provided by the pile use-surface.

Rolling Resistance

Due to the high level of engineering undertaken in their design and manufacture, health care carpets generally have low rolling resistance values.

Indoor Air Quality

Carpet acts as a highly effective indoor air filter by trapping toxic dust particles that settle out on the surface of the carpet, within their pile mass. Fine dust particles fall to the base of the carpet and remain there until safely removed by periodic or corrective cleaning and regular vacuuming using a machine with HEPA (high efficiency particulate air) filters.

In contrast, particles settling on smooth floors are easily disturbed by air movement, vibration, and footfalls resulting in breathing zone re-entry.

In 2005, the German Asthma and Allergy Bund (Foundation) conducted a study of fine particle levels in more than 100 homes paying special attention to furnishings and the type of floor coverings.

The study found that the average content of dust particles in the air over smooth floors was twice that of carpeted floors and exceeded the European safe limit standard.

The study commented that 'above all for particularly sensitive persons already suffering from previous damage to airways, the selection of a flooring material binding dust and not emitting it to the air to be breathed is an essential preventative aspect'.

The quality of the air is also affected by chemical pollutants, including volatile organic compounds (VOCs), released from materials or products in the form of gases. Compared to vinyl flooring, VOC emissions from carpet are low and degrade quickly.

A further benefit of carpet's pile surface is that it absorbs common breathable volatile organic chemical gases (VOCs) such as formaldehyde emitted from a range of building products.

For all of these reasons, a well maintained carpet makes a positive contribution to indoor air quality – an important requirement in healthcare settings.





Infection Control

The Carpet Institute is not aware of any references in published literature about carpet acting as a source for the spread or outbreak of Hospital Acquired Infections.

Similarly, to the best of our knowledge, there are no study findings to suggest a patient bedroom with carpet that is suitable for use in healthcare settings, is in any way inferior to a hard floor surface.

Cleaning maintenance

Healthcare carpet is engineered to perform under rigorous cleaning conditions. While there is a perception that carpet is difficult to clean compared with hard floor coverings, healthcare carpets have construction and installation characteristics that enhance cleanability whilst providing the other previously mentioned benefits.

Conclusion

Carpet makes healthcare buildings quieter, more comfortable and safer places.

Slip-resistant and impact absorbing, carpet is the best flooring choice in normally dry areas of healthcare buildings (including bedrooms; corridors; common areas and offices) when the safety, comfort and amenity of all inhabitants and visitors is a priority for facility managers.



About the Carpet Institute of Australia

The Carpet Institute of Australia Limited (CIAL) is the lead industry association for Australia's \$1.6 billion carpet industry. CIAL represents carpet manufacturers, carpet retailers and other suppliers of goods and services to the industry.

Carpet Institute of Australia Limited ABN 11 006 829 303

PO Box 7172, St Kilda Road, Melbourne 3004 Tel: (03) 9804 5559 • Fax: (03) 9804 5560

Email: info@carpetoz.com.au • Web: www.carpetinstitute.com.au

CARPET
INSTITUTE
- of -
AUSTRALIA
LIMITED



The "*Carpet It Just Feels Better*" campaign is an initiative of the Carpet Institute of Australia, a non-profit association sponsored by carpet manufacturers, their suppliers and other companies that provide goods and services to the broader carpet industry.