

Healthy Design

Introduction

People spend the majority of their time in buildings, and a mounting body of evidence indicates that the buildings that they occupy have a profound impact on their health. In response, healthy design has joined sustainability as a benchmark requirement for best practice in building design.

Healthy design and sustainability are complementary principles, each providing benefits to building occupants and value to building owners. Whereas sustainability focuses on a building's impact on the environment, healthy design focuses on a building's impact on human health and wellbeing. Using healthy design principles, such as varied workspaces and increased accessibility, designers work to address the many ways that a building can facilitate healthier workspaces.

Research and Studies

A growing body of evidence highlights the impact of a building's design on occupant health. In 2015, the Urban Land Institute published [Building Healthy Places Toolkit](#), which provides evidence-based recommendations for promoting health in buildings. This was followed in 2017 by Harvard University's [The 9 Foundations of a Healthy Building](#), which focuses on office space design. Findings include:

- A wide range of design and construction elements are beneficial, including flexible open space for collaboration, activities, and events, and quiet spaces for concentration and focused work.
- Controls for air temperature, humidity, and acoustics should be adjustable to help create a comfortable work environment.
- Biophilic design, with natural views and materials, connect people to nature.
- Showers and lockers for employees allow running or biking to work or exercising during the day.
- Buildings constructed with low-VOC materials and finishes reduce exposure to these toxic substances.
- Good lighting leads to better sleep at night and better productivity during the day.
- Reducing noise levels improves productivity and job satisfaction.

Healthy Design Rating Systems

To address building-related health concerns, rating systems have been developed to both provide designers and owners guidance

in design, and to benchmark the performance of buildings; these systems include Fitwel, WELL, and the Living Building Challenge. Fitwel was developed by the U.S. Centers for Disease Control and Prevention and the U.S. General Services Administration. Its evidence-based criteria were developed by both public health and design industry experts and are supported by more than 3,000 research studies. The Fitwel standard focuses on 12 wellness factors:

1. Location, including walkable amenities and transit
2. Building access, including multi-modal access
3. Outdoor spaces, including nearby outdoor amenities
4. Entrances and ground floor design, including improving air quality and access to health-promoting amenities
5. Stairwells, including design for increased use
6. Interior environment, including reducing harmful substances
7. Workspaces, including daylight, views, and operable shading
8. Shared spaces, including areas for physical activity and mental rejuvenation
9. Water supply, including access to fresh water
10. Cafeterias, including standards for healthy food and beverages
11. Vending machines, including providing healthy options
12. Emergency procedures, including increased safety during emergency situations

Conclusion

Building design has a significant impact on occupants' wellbeing, and healthy design principles acknowledge this and strive to provide people with work environments that promote overall wellness. Buildings designed with these principles in mind help to enhance productivity, reduce stress and sickness, increase flexibility and accessibility, and keep employees satisfied with their workspace.

Further Reading

Building Health Places Toolkit

<http://uli.org/wp-content/uploads/ULI-Documents/Building-Healthy-Places-Toolkit.pdf>

The 9 Foundations of a Healthy Building

https://forhealth.org/9_Foundations_of_a_Healthy_Building.February_2017.pdf

Fitwel – Center for Active Design

<https://centerforactivedesign.org/fitwel>

