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# Products: How to Specify Living Walls in Hospitals

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All the reasons that make living walls attractive for commercial spaces also make them desirable for healthcare facilities. They can help remove toxins and particulates from the air, increase oxygen levels, reduce stress, and foster calming environments—all of which are beneficial to patients and medical staff.

Similar to felt or wool acoustical panels, living walls can provide remarkable levels of sound absorption, says Nathan Beckner, lead plant designer at Chicago-based custom living wall manufacturer Sagegreenlife. They can also help projects earn LEED and WELL Building Standard credits, Beckner adds.

However, living walls can increase energy use, says David Briefel, regional sustainability director at Gensler's New York office. "But oftentimes the benefits [to the end users] outweigh the impact."

Here are six considerations for designing a living wall in a healthcare environment.

## Light

An indoor living wall should be situated for maximal exposure to daylight, if possible, although LED lights can be added as a supplement. For a living wall to survive under electric lighting, Matt Hills, ASSOC. AIA, a designer for the Reading, Pa.-based interior landscaping company Ambius, recommends ceiling-mounted fixtures with a minimum of 5,000 lux (250 foot-candles) and a 4300K color temperature—similar to properties of the natural daylight.

## Plant Selection

Most consultants will provide a list of recommended site-specific plant species, from which architects and designers can then select based on the aesthetic desired. In general, tropical plants are preferred for living walls because they are accustomed to being in a warmer climate year round, similar to that provided by conditioned interior environments. "[We] trick them into thinking that they're still in their climate," Hills says. "If architects are interested in air purification only, then we can design with certain plants that remove more toxins." For healthcare projects in particular, blooming plants that shed petals or release pollen aren't generally recommended because they can trigger allergic reactions.

## Medium

Certain considerations must be taken into account before installing living walls in hospitals, where infection control is critical, Beckner says. In such spaces, the plant medium must have antimicrobial properties. One suitable example is rock wool.

## Systems

Most living wall systems consist of panels or trays. Panel systems are typically modular and feature pre-grown plants. Individual panels can be easily removed to access irrigation lines. The tray system, meanwhile, can accommodate pots, which are replaceable and relocatable within a

wall, allowing for ongoing flexibility and customization.



Ann B. Barshinger Cancer Institute, in Lancaster County, Pa., designed by Ballinger

## Water

Large living walls often integrate an automatic water irrigation system, which can be configured to run daily or weekly, depending on the plants' needs. Because the system runs automatically, it can be easy to forget that it needs regular maintenance. If a water supply or a drain isn't feasible, Hills says, a pump-and-tank system can manually water the plants using a trough at the base of the wall.

## Plant Maintenance

Living walls should be pruned every two weeks, Beckner says, particularly if they are intended to look organic and natural. However, if the intent is a more customized look or if the expanse is very large, maintenance may be needed on a weekly basis.

> To learn more about how to specify living walls for healthcare facilities, visit [bit.ly/ARLivingWalls](http://bit.ly/ARLivingWalls).