

# VERTICAL

# CONSTRUCTION



**Evidence for a healthier design**

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## Evidence for a healthier design

*Evidence Based Design studies are showing that better medical facility design can lead to healthier outcomes for patients and greater satisfaction for physicians and nurses.*

Evidence-based design (EBD) is becoming a familiar buzzword in healthcare facility programming. EBD relates to the impact the built environment has upon the people within it, on an emotional and physical level. But it's not just about pretty pictures, pleasing paint colors and pendant lights. By utilizing proven design principles relating to elements such as sound, air quality, layout, light, comfort and safety, EBD has been shown to have a positive impact on patient and staff safety, quality of care, customer satisfaction, staff recruitment and retention, and clinical operations -- factors that impact the bottom line. It's no wonder that healthcare providers around the world and in Idaho are investing millions in EBD

Last year, Boise-based Saint Alphonsus Regional Medical Center (SARMC) opened a \$161 million dollar state-of-the-art healthcare facility, which incorporates cutting-edge evidence-based design architectural principles. The focal point of the *Center for Advanced Healing* is a nine-story, 400,000 square foot tower that provides 160 additional beds, 16 operating rooms, a 32-bed intensive care unit and several other enhancements.

A hospital environment often conjures up feelings of anxiety and stress for patients and their families. What's most striking about Saint Al's new facility is that it looks and feels more like a hotel than a hospital, with valet parking, prominent art, water features, comfortable seating arrangements,

Photo: *The lobby of Saint Alphonsus Regional Medical Center's new Center for Advanced Healing in Boise, Idaho..*



earthy tones and natural light. Visually, it's clear that Saint Al's has striven to create an atmosphere that promotes patient satisfaction and healing. Structurally the focus is on privacy, noise reduction, access to natural light and nature, air quality, building layout and ergonomics. According to Saint Al's, these design elements have not only reduced stress and anxiety, they have contributed to shorter length-of-stays for patients, fewer medication errors and rates of infection, better sleep, fewer falls, fewer patient complaints and better patient health.

"Our patient satisfaction rates have gone up from the 35<sup>th</sup> percentile to the 90<sup>th</sup> percentile nationally in just a year," says Heather Luchte, patient satisfaction coordinator for SARMC. And it's not just patients who are reporting greater satisfaction with their experience. Doctor and nurse satisfaction rates are on the rise too.

"It's not just the building," says SARMC hospitality manager Tony Fisk. "We've also worked very hard to change the way we deliver services to a more patient-focused approach."

Although the patient response has been very positive, the hospital's new look has not escaped criticism because of perceived extra costs. But Fisk says

that the cost for the *Center for Advanced Healing* was not more when compared to similar projects. "Our costs were in line with other construction," says Fisk. "About average for hospital construction." Of the \$161 million total spent on the project, roughly \$105 million was spent on the new central tower, \$39 million was spent for renovating existing areas on the campus and \$16 million was spent on furniture, furnishings and equipment.



*Photo: The exterior entry to Saint Al's new facility.*

Art plays an important role in EBD. There are more than 150 pieces of original artwork in the common areas of the hospital, most created by Boise artists. "Original art is not cost prohibitive when you use local talent," says Fisk. Although the mediums range from paintings, photos and drawings to sculpture, ceramics and quilts, all the themes of the artwork are consistent with hospital principles and portray mostly nature and local scenes. Research shows that art in a healthcare facility is very important. Art can provide a distraction for anxious patients and family members and can even help orient people to where they are in a building. But art must be carefully chosen or it can send the wrong message. "We had a piece in the old building that showed a lake in the fall, with dead leaves, and a lonely pier," says Fisk. "We got rid of that."

Another prominent feature of EBD is nature. Saint Al's has nine pocket gardens tucked away in various areas of the campus that are linked by a mile-long trail. A separate roof top garden on the fourth floor is designed with ramps and wide doorways so that even a patient confined to a bed can enjoy the benefits of being outdoors and close to nature.

Saint Al's will capture and share data about how their EBD efforts are impacting patients and staff with the *Pebble Project*, a joint research effort between the Center for Health Design and selected healthcare providers. Saint Al's was the fifth hospital in the nation to join the



*Photo: A state-of-the-art surgery suite at Saint Al's.*

project, which includes an international community of healthcare professionals representing more than 50 organizations. Participation in the project allowed Saint Al's access to the latest research on EBD and experts in the industry during the design and construction phase. The *Pebble Project* was initiated in 2000, to provide examples of how the design of healthcare organizations can improve the quality of care, attract more patients, help recruit and retain staff, increase community support and enhance operational efficiency and productivity.

No amount of beautiful art or well-designed patient rooms will take the place of good doctors and staff. But shifting the focus to the patient's perspective and acknowledging that the physical environment plays a role in their health appears to come with benefits for everyone. It's not just good for health care; it's good for business.

### **EBD on a smaller scale**

Are large hospitals the only healthcare entities that can benefit from Evidence Based Design? Given the explosive growth in healthcare facility construction in the Treasure Valley, it's worth asking whether or not clinics and outpatient facilities can



incorporate elements of EBD for the benefit of their patients and staff. "Most definitely," says Fisk. In fact, Saint Al's has incorporated the same "healing design elements" into their smaller health plazas located in Meridian and Eagle.

Jeff Cramer agrees. Cramer is an architect and project manager for HDR Architecture Inc., in Boise, a leading national firm specializing in healthcare planning and design and the architect for Saint Al's new facility. Cramer says that many of the same principles that apply to a large hospital facility can apply to smaller healthcare facilities. "Noise reduction, natural light, air quality, and functional and efficient layouts are key elements that can be incorporated into any healthcare facility," says Cramer. And it doesn't always have to cost more money. One example is natural light, which, according to Cramer, can be achieved with no added costs based on how a particular space is arranged and configured.

*Photo: The renovated lobby of Idaho Neurosurgeons Clinic in Boise, Idaho.*

"Most of our clients are savvy about Evidence Based Design and its positive outcomes," says Cramer. "But they may not be fully aware of the details or how to incorporate it into a project." According to Cramer, it's critical to incorporate EBD early in the design process. "Ideally we start in the programming phase before any lines are drawn," says Cramer. "During this time, through discussions with the client, facilities processes and design objectives are best established. EBD

objectives are discussed and begin to affect the program and define what type of spaces will be provided and how the space will function.”

### **Incorporating EBD into your facility**

Every medical practice is unique. Design elements that are important for a practice serving the elderly will be different than those serving young patients or women. However, no matter what type of healthcare you provide, there are EBD design elements that can apply to any facility whose goal is to improve patient health, provide a better working environment, and increase profits.



- Installing HEPA filters can improve air quality and lower infection rates.
- Access to or views of nature can, according to several studies, help reduce stress and alleviate pain.
- Installation of sound absorbing ceiling tiles (which often don't cost more than regular ceiling tiles) can reduce patient and staff stress.
- Better lighting and access to natural light can reduce stress and improve patient safety.
- Reception and waiting areas that are easily accessible, comfortable, well-lit, and nicely furnished with positive distractions such as well-chosen art, up-to-date literature, television, or water features can improve people's moods and physiological states.
- Promoting the use of visible and accessible hand washing dispensers decreases infection rates.
- Orderly, well lit and ergonomically focused spaces that are organized around critical activities can reduce medication errors and reduce staff stress.

*Photo: Color and natural light from round skylights in the ceiling play an important role at the Idaho Neurosurgeon's clinic.*

If you are not renovating or rebuilding but are interested in updating the look and feel of your office, consider incorporating these low-cost EBD elements, which

can increase patient satisfaction.

**Color:** Use pleasing earth tones on the walls, floors, and upholstery in your reception and exam rooms.

**Light:** Use lamps and indirect lighting to create a calm atmosphere

in reception and waiting areas and natural light to illuminate exam rooms.

Although many exam rooms have windows, they are often covered with blinds. Replace old blinds with top-down blinds that provide both privacy and natural light.

**Comfort:** Provide comfortable furniture in reception and waiting areas.

**Art:** Make sure your artwork is appropriate for your office. Abstract images, wild animals, lone characters, and difficult to interpret images have a negative impact. Choose art that depicts nature, landscapes and regional landmarks. There are several affordable on-line sources, such as *StudioArtDirect.com*, who specialize in finding art and photographs by local artists for healthcare facilities.

**Noise:** Suppressing office noise with a water feature or television can help reduce stress and provide a pleasing distraction.

**Music:** Studies have shown that allowing patients to listen to their own music with an Mp3 device before, during, and after procedures reduces stress and anxiety and speeds recovery time.



"It doesn't have to be a big expenditure," says Fisk. "Just paying attention to noise, your waiting room, updating art, lighting and color -- anything you can do to reduce stress and anxiety for your patients has a healing impact." But Fisk emphasizes that the built environment is just one part of the piece. "It is a holistic approach to healing in which people are a very important part," says Fisk.

For more information on Evidence Based Design, visit these useful websites: The Center for Health Design, [www.healthdesign.org](http://www.healthdesign.org); The Robert Wood Johnson Foundation, [www.rwjf.org](http://www.rwjf.org); and InformedDesign, [www.informedesign.umn.edu](http://www.informedesign.umn.edu).