



Workplace Design for Well-being

Today, there is an emerging opportunity to use workplace design to promote a holistic state of well-being for people at work. When organizations provide work environments that support user control, natural elements and daylight, and changing postures, they address the physical and psychological health of people—enhancing engagement, creativity, innovation, and retention. Good workplace design fosters well-being—which leads to success for organizations.

There is an emerging opportunity to *effectively* use design to promote employee well-being

Wellness programs have long been in place, encouraging physical (healthy choices in eating, exercise, etc.) and psychological health in employees. Separate from wellness programs, sustainability initiatives have addressed physical health by minimizing exposure risks to harmful chemicals and materials through standards such as LEED certification. Ergonomic standards have been developed to reduce risk of musculoskeletal injuries in office workers. However, these disparate programs fail to address a complete sense of the whole person at work that includes both physical and mental health, while encompassing performance, engagement, and well-being.

Productivity used to be the ultimate goal for earlier generations of office workers whose mentality around work was to bring the “work only” version of themselves into the office. The “whole person” was not really considered in space design in the past; instead, the focus was on functional requirements that support the work persona: tasks, technology, and processes. Today, there is an emerging opportunity to use workplace design to promote a holistic state of well-being for people at work.

Organizations aspire to a more inclusive and enduring outcome for employees

The goal of well-being for employees subsumes all other outcomes. It is not a short term emotion, like “happiness,”—it is an enduring state that can lead to productive, engaged, balanced, and healthy employees. A large body of research shows that health and well-being are directly affected by many features of the overall physical environment.¹

Addressing workplace well-being can help organizations:

- + Attract and retain employees**
- + Reduce the costs of absenteeism**
- + Reduce the effects of stress**
- + Reduce health costs**
- + Improve employee engagement**
- + Improve morale by creating a socially engaging, supportive environment**



Generation Y and Employee Engagement

The growing Generation Y (also called Millennials) workforce famously blends work and personal life, bringing a more holistic version of themselves into the office. The need for belonging and connecting is very important to these younger, highly collaborative workers. As organizations embrace employee engagement, there is growing realization that simply looking at productivity is too narrow. We need a broader conceptualization of people at work.



54% of waking hours are spent at work

– Sodexo, Workplace Trends 2014

The role of workplace design is evolving to a people-centric approach

A focus on well-being represents a shift from a “space-centric” to a “people-centric” approach in office design. Traditional space-centric design offers workspaces based on work process and functional requirements that are designed directly for the best interests of the organization—by driving employee performance. People-centric design puts people at the center of the design process, with outcomes related to quality of life (such as reduced stress). Of course, the assumption is that as quality of life improves, traditional business issues, such as engagement and performance, are also positively affected.

Today, a significant opportunity exists for organizations to unlock the potential of office design as a means of enhancing well-being, leading to a healthier, more engaged and high performing workforce.

¹ Creighton, 2014; Parsons et al., 2012; Vischer, 2007.

Employee health issues and disengagement have costly effects on the bottom line

Chronic disease and stress-related illnesses are rapidly increasing in the working-age population.² Stress is a known cause of both mental health disorders and cardiovascular diseases.

The World Health Organization predicts by 2020 mental health disorders and cardiovascular diseases will be the two prime types of illnesses in workers.³ In addition, it's a widely known fact that lack of exercise—in particular, long periods of sitting—causes more deaths from diabetes, heart disease, and other inactivity-related diseases, than smoking.

Disease and stress, in turn, impact organizations through absenteeism and employee healthcare costs. The annual absenteeism rate in the US is 3 percent on average per employee in the private sector, and 4 percent in the public sector.⁴ Full-time workers in the U.S. with chronic health conditions miss an estimated 450 million additional days of work each year compared with healthy workers—resulting in an estimated cost of more than \$153 billion in lost productivity annually.⁵ Stress costs another \$300 billion, chronic health conditions over \$1 trillion, and working in “sick buildings” adds another \$60 billion.⁶

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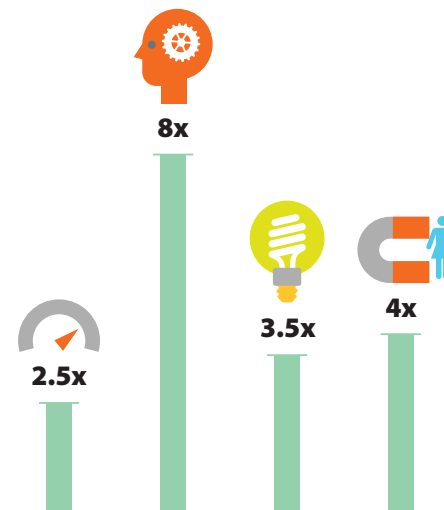
– World Health Organization, 2010

Another aspect of well-being is psychological health. Employee engagement is constantly ranked as one of the top five most important challenges for organizations. Gallup's 2014 poll shows that less than one-third (32 percent) of American employees were engaged in 2014.⁷ Worldwide, these figures don't present a promising picture either. For example, China and Hong Kong have

alarmingly low rates of engagement (6 percent and 4 percent, respectively). Gallup's studies have shown that by far the greatest losses of productivity occur when employees are disengaged. Another study found that happy employees are 87 percent less likely to leave their organizations than disengaged employees.⁸

Similar to absenteeism is “presenteeism”—when workers display low productivity and engagement despite being physically healthy.⁹ According to a study by Foresight, the cost of presenteeism to UK businesses is approximately £1 billion per year, a cost estimated at 1.3 times that of absenteeism.

Conversely, when health and well-being are actively promoted in an organization:



- The organization is seen as **2.5 times** more likely to be a best performer
- Employees are **8 times** more likely to be engaged
- The organization is seen as **3.5 times** more likely to be creative and innovative
- The organization is seen as **4 times** less likely to lose talent in the next year¹⁰

Studies indicate, even in turbulent economic times, organizations with high engagement levels have outperformed the total stock market index and posted higher than average total shareholder returns.¹¹

Employee well-being can offer a strong return on investment

The economic case for investment in well-being is clear. While initially organizations are likely to incur additional costs, the business case for investment is strong. According to a recent *Harvard Business Review* case study, Johnson & Johnson's leaders estimated that their wellness programs had cumulatively saved the company \$250 million on healthcare costs over the past decade.¹² The commercial real estate services firm CBRE states that implementing wellness concepts from the WELL Building Standard® in their Los Angeles office required an investment of only 1.73 percent—a small price to pay for the return: improved engagement, retention, and connection.

Further, Millennials, who comprise an increasing proportion of the workforce (50 percent by 2020) may actively choose to work for organizations that demonstrate commitment to well-being. Without them, businesses will lose talent, the work they produce and, in the case of Millennials, a significant portion of the available workforce.¹³

2 Sodexo, 2014.

3 World Health Organization, 2010.

4 World Green Business Council, 2014.

5 Gallup, 2011.

6 Rex Miller, Mabel Casey, and Mark Konchar, 2014.

7 Adkins, 2014.

8 Renders, 2015.

9 Human Spaces, 2014.

10 J. Parsons, M. Powell, and V. Culpin, 2012.

11 Hewitt, 2011.

12 L. Berry, A. Mirabito, and W. Baun, 2010.

13 Zappale, 2015.

Incorporating well-being concepts into workplace design

A workplace that truly supports the well-being of its occupants must go beyond just protecting their physical health. In this section we offer suggestions for achieving well-being by taking a holistic approach that addresses physical and psychological health and well-being in the workplace.

Design to improve mental health

Numerous factors increase stress levels. Lack of control over work process and work space, enclosed and poorly lit spaces, plus noise and interruptions in concentration are some key contributors to stress. Some ways to address this in the workplace include:

Increase the availability of user control over the workspace

Fundamentally, environmental control is about giving people the workplace design, furnishings, technology, and policy tools that provide choice over how to work, as opposed to being limited by the space or organizational policies. Environmental control can contribute to number of benefits, including group effectiveness, employee engagement, job satisfaction, and group cohesiveness.

- Specify flexible task lighting so that the individual can control brightness and position of lighting source.
- Ensure workplace flexibility through adjustable furnishings, such as seating, adjustable height workspaces, shelving, and display.
- Create a variety of individual, group, and social interaction spaces that let employees choose the workspace size, type, furnishings, and technology that fit their immediate work needs.

Introduce elements of nature into the workspace

The concept of biophilia suggests that humans have a biological need to connect with nature on physical, mental, and social levels, which can affect personal well-being, productivity, and societal relationships. Those who work in environments that incorporate elements of the natural environment, such as daylight and views outside, report a 15 percent higher level of well-being than those who work in environments devoid of nature.¹⁴ Simply adding plants in the workplace can have a profound effect on the improvement of mental health at work, not to mention improving indoor air quality and alleviating respiratory issues.

- Ensure workstations and collaborative areas have a view to the outside.
- Incorporate plants into the design of the space.
- Design using natural materials and patterns that evoke nature.
- Create open plan areas to address people's affinity for wide, open spaces.

Incorporate more natural light into the overall office environment

One of the fundamental roles of lighting is to allow people to see and execute a task in a safe and comfortable manner. It allows for reading without causing fatigue, headaches, or eye strain. Light affects how people perceive and appreciate a space, its interior, and its occupants. Depending on what the activity requires, lighting can be used to create spaces that appear more bright and open, or more intimate and cozy. Light also has a powerful impact on the mind and body, affecting circadian rhythms and hormonal activity, which ultimately affect quality of sleep, energy, mood, and productivity.

- Ensure workstations receive plenty of natural light.
- Consider implementing circadian lighting systems.
- Install task lighting at workstations.
- Design the layout so that glare on monitors or flat screens is minimal.



¹⁴ Human Spaces, 2014.



Minimize noise distractions

Research shows that sounds from nature, such as birdsong or rippling water, promote faster recovery from stressful tasks compared with traffic and ambient building noise, such as air-conditioning equipment.¹⁵ Additional research suggests that using pleasant sounds from natural environments to mask background workplace noise could decrease employee stress and increase worker productivity.¹⁶

Noise distractions, however, pose challenges that can be addressed through both design and policy. The following four person-centered acoustic principles can be used to design various spaces with differing acoustics and to clearly communicate expectations for how to use those spaces:¹⁷

- Displace noise distraction – Provide both informal collaboration spaces and spaces that provide quiet. Make it easy to distinguish between these types of spaces (e.g., café spaces for breakout meetings versus phone-free desk areas resembling a library setting), and make these spaces easy to access. Some employers may even want to allow people to work from “third places” (the spaces between home and office, such as coffeehouses), or from home.

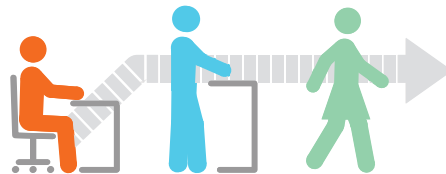
- Avoid noise distraction – Refrain from creating areas that generate noise (e.g., hands-free speaker phones) in the midst of areas where people need to concentrate. Also, locate noisier teams apart from quieter teams. Since team members are more tolerant of noise from their team members, be sure to co-locate them.
- Reduce noise distraction – Manage density and acoustics. Lower density areas produce less noise. Acoustical devices (e.g., natural soundscapes) reduce speech intelligibility and noise transference across spaces and between rooms.
- Educate employees – Communicate policies and design choices that foster consideration among colleagues. This helps employees understand expectations for what type of work and noise is appropriate in differing workspaces and how to control noise distractions for themselves and others.

Design to improve physical health

People can spend an average of 9.5 hours sitting—even more than they sleep. Statistics reported by the American Cancer Society indicate that people who sat for more than 6 hours per day, versus just 3 hours, are more likely to die sooner (males – 18 percent more likely; females – 37 percent more likely).¹⁸ Some ways to address this concern in the office include:

Promote changing postures and movement within the space over the course of the workday

Giving people the option of sitting or standing throughout the day, or allowing them to move from one position to another is good practice. Research shows that continuous variation is better than short periods of exercise, such as gym workouts at the beginning or end of the day.¹⁹

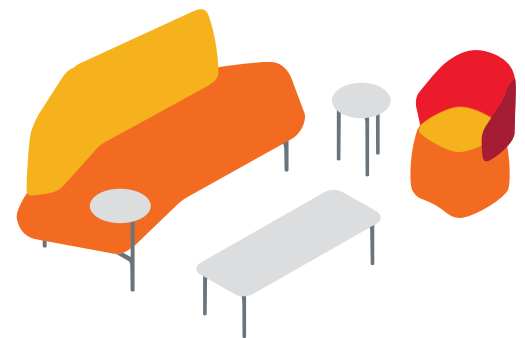


- Incorporate height-adjustable worksurfaces into the space.
- Strategically locate water fountains, photocopiers, vending machines, and other amenities to increase walking in the space.
- Promote movement by developing walking routes and encouraging walking meetings.
- Consider implementing activity based settings where people are free to move to their workspace of choice according to the needs of the task.

Apply ergonomic principles in all spaces

More organizations offer a variety of spaces to facilitate collaborative work and social interaction as a way to increase innovation and productivity, and to promote well-being. However, traditional office ergonomics do not usually address these spaces.²⁰

- Design and furnish lounge spaces to facilitate safe postures.
- Use furniture elements that provide adequate access to power and data.
- Supply height-adjustable tables or a variety of worksurfaces of both sitting and standing height.
- Select lounge furniture with firm seat and back cushions, preferably with soft, wide armrests to facilitate safe postures.



15 J. Alvarsson, S. Wiens, and M. Nilsson, 2010.

16 H. Jahncke and N. Halin, 2012.

17 N. Oseland and P. Hodsmann, 2015.

18 A. Patel, L. Bernstein, A. Deka, H. Spencer, P.

Campbell, S. Gapstur, G. Colditz, and M. Thun, 2010.

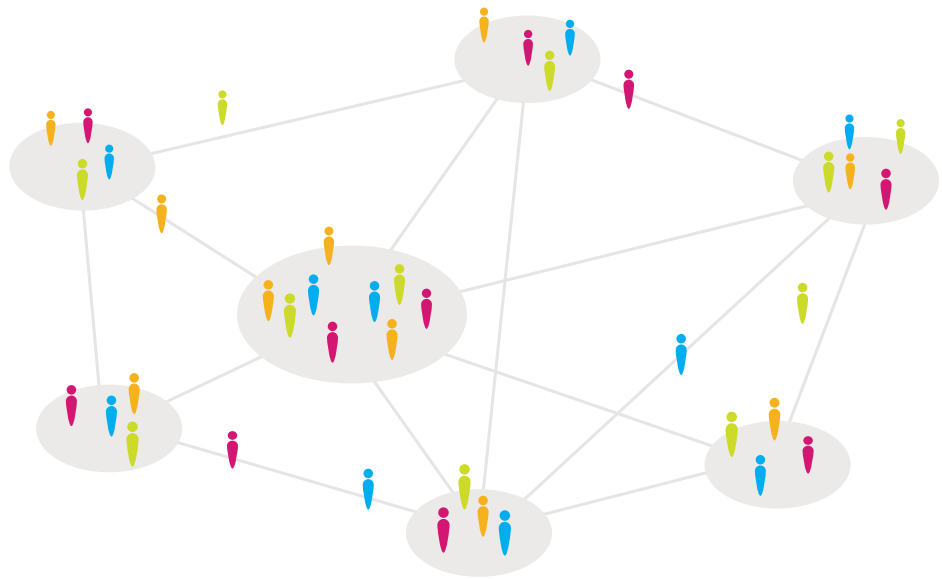
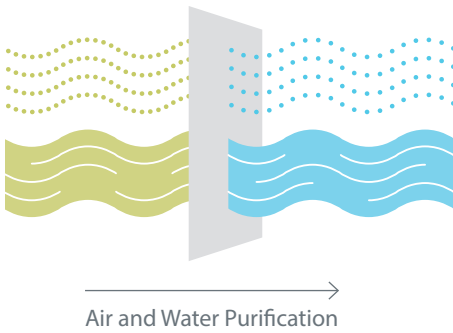
19 Kay, 2013.

20 O'Neill, 2014.

Reduce presence of harmful elements in the ambient environment

The materials of the physical building itself (e.g., asbestos-free, low VOC levels), the interior design (e.g., sound absorbing surfaces, natural lighting at workstations), and the HVAC system (e.g., air quality), are a few ways in which the physical elements of the building can impact well-being.

- Minimize pollutants in the air, water, and food.
- Use international standards (e.g., LEED, BREAM, LBC, CHINA 3 STAR) as guidelines.
- Implement filtration and monitoring systems for air and water.
- Specify only “healthy” materials on furnishings.
- Review and eliminate harmful cleaning chemicals.



Develop a sense of community

Social interactions among employees are vital for well-being. Loneliness can lead to high levels of the stress hormone cortisol, poor immune function, high blood pressure, and depression. Unfortunately, too often, people get stuck in their feelings of loneliness or rejection, with high levels of anxiety and fear that lead them to become even more socially isolated. In fact, there is a twist to the slogan, “Sitting is the new smoking.” The Japanese variation is “Loneliness is the new smoking” that kills.

- Develop policies and activities that allow employees to build time and space for social activity into their work day or after work.
- Offer wellness programs that include nutrition, fitness, and charitable giving.
- Offer social spaces that let people connect to each other and the organization.
- Design space to allow for serendipitous interactions.

The power of well-being in design

When well-being is “built in” to the design of space it can be very effective. With corporate-wide health policies and wellness programs, employees need to “opt-in” to actively participate and enjoy the benefits. Unfortunately, research shows an average of only 25 percent participation in wellness programs across the US. When well-being principles are factored into design, people are surrounded by it while they work within the space, making it impossible not to participate and receiving the benefits of better psychological and physical health.

Organizations can influence employee behavior through education, corporate culture, and the design of their work environment. When these capabilities are maximized they can have a positive effect on people’s health and well-being. If organizations can provide a work environment that holistically affects the well-being, satisfaction, and happiness of their workforce, they can expect people to be more engaged, ultimately leading to higher organizational performance.

References

- Adkins, A. Majority of U.S. Employees Not Engaged Despite Gains in 2014, Gallup, 2014. <http://www.gallup.com/poll/181289/majority-employees-not-engaged-despite-gains-2014.aspx>
- Alvarsson, J., Wiens, S. and Nilsson, M. Stress Recovery during Exposure to Nature Sound and Environmental Noise, National Center for Biotechnology Information, US National Library of Medicine, National Institute of Health, 2010. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872309/>
- Berry, L., Mirabito, A. and Baun, W. What's the Hard Return on Employee Wellness Programs? *Harvard Business Review*, December, 2010.
- Creighton, J. L. Employee Wellbeing and New Ways of Working. www.newwow.net, 2014.
- Gallup. Healthways Well-Being Index, 2011. <http://www.gallup.com/poll/150026/unhealthy-workers-absenteeism-costs-153-billion.aspx>.
- Hewitt, A. Trends in Global Employee Engagement, AON, 2011. http://www.aon.com/attachments/thought-leadership/Trends_Global_Employee_Engagement_Final.pdf
- Human Spaces. The Global Impact of Biophilic Design in the Workplace, 2014. <http://humanspaces.com/wp-content/uploads/2014/10/Global-Human-Spaces-report-2015-US-FINAL.pdf>
- Jahncke, H. and Halin, N. Performance, fatigue and stress in open-plan offices: The effects of noise and restoration on hearing impaired and normal hearing individuals. *Noise and Health*, Vol. 14, Issue 60 (2012), pp. 260-272.
- Kay, G. Sit vs. Stand: Who Benefits from Sit-to-Stand Workstations? Ergoweb, 2013. <https://ergoweb.com/sit-vs-stand-who-benefits-from-sit-to-stand-workstations/>
- O'Neill, M. Active ergonomics for the emerging workplace. Haworth white paper, Haworth, Inc., 2014.
- Oseland, N. & Hodsman, P. Planning for psychoacoustics: A psychological approach to resolving office noise distraction. *Saint-Gobain Ecophon Research Report*. Workplace Unlimited, 2015.
- Miller, R., Casey, M. and Konchar, M. *Change Your Space, Change Your Culture: How Engaging Workspaces Lead to Transformation and Growth*. New Jersey: Wiley, 2014.
- Parsons, J., Powell, M., and Culpin, V. Can you afford not to take employee wellbeing seriously? *The Ashridge Journal*, Autumn 2012.
- Patel, A., Bernstein, L., Deka, A., Spencer, H., Campbell, P., Gapstur, S., Colditz, G. and Thun, M. Leisure Time Spent Sitting in Relation to Total Mortality in a Prospective Cohort of US Adults, *American Journal of Epidemiology*, 172(4) (2010). DOI: 10.1093/aje/kwq155.
- Renders, A. Why happiness is an HR issue. CorporateKnights.com, 2015. <http://www.corporateknights.com/channels/workplace/worker-happiness-14218557/>
- Sodexo, Workplace Trends Report, white paper, 2014.
- Suda, Fujiko. Personal interview with Gabor Nagy, March 31, 2015.
- Vischer, J. The concept of environmental comfort in workplace performance. *Ambiente Construído*, Porto Alegre, v. 7, n. 1, (2007) p. 21-34
- World Green Business Council. Health, Wellbeing & Productivity in Offices: The next chapter for green building, 2014. http://www.worldgbc.org/files/6314/1152/0821/WorldGBC_Health_Wellbeing_productivity_Full_Report.pdf
- World Health Organization. Global status report on Noncommunicable Diseases, 2010. http://www.who.int/nmh/publications/ncd_report_full_en.pdf
- Zapille, R. Six attributes that make a great workplace. Colliers International, Insights, April 1, 2015. <http://insights.colliers.com/six-attributes-that-make-a-great-workplace/>

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Haworth research investigates links between workspace design and human behavior, health and performance, and the quality of the user experience. We share and apply what we learn to inform product development and help our customers shape their work environments. To learn more about this topic or other research resources Haworth can provide, visit www.haworth.com.

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