



# Physical Activity in the Workplace

A Guide for Employers

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## Why is employee physical activity important to businesses?

Increasing employees’ physical activity can create a healthier workforce, increase employees’ productivity, and decrease employees’ risk of developing costly and debilitating chronic diseases.<sup>1</sup> Employees who are physically active have lower healthcare costs, require less sick leave, and are more productive at work.<sup>2-6</sup> Specifically, research has shown that employees who get at least 75 minutes of vigorous-intensity physical activity per week miss an average of 4.1 fewer days of work per year.<sup>3,4</sup> Furthermore, physically inactive employees are more likely to require sick leave—costing an average of 26 cents per hour worked in 2014—which increases healthcare expenditures for businesses.<sup>5,6</sup> In total, physical inactivity was responsible for 11.1% of healthcare expenditures between 2006-2011, representing a significant cost for businesses and health alike.<sup>5</sup>

In addition to improving “the bottom line,” many employers believe that creating a culture of health in the workplace by encouraging and supporting healthy behaviors like physical activity can help attract and retain high quality employees.<sup>7</sup> By attracting and retaining high quality employees, and helping those employees remain healthy and productive, physical activity programs can yield a wide range of significant business benefits.<sup>8</sup> For example:

- A study of **General Motors** employees found that moderately active (exercising 1 to 2 times per week) and very active (exercising 3+ times per week) employees had approximately \$250 **lower annual paid health care costs** than inactive employees, regardless of weight or BMI. When the researchers examined the obese subpopulation specifically, the savings rose to \$450. The researchers determined that up to 1.5% of total health care costs could be saved if all obese sedentary employees became physically active.<sup>4</sup>
- In 2011, **O’Neal Industries**, a collection of family-owned metal service centers headquartered in Birmingham, AL, introduced the ONI LIVESMART program. The LIVESMART program had a number of different components, including health improvement campaigns, health coaches, and, at select locations, on-site physical fitness facilities. An analysis in 2014 found that over 400 of their 3,000 employees had initiated or improved their exercise levels, contributing to an **overall net cost savings** of \$556,100 for the business and producing a **return on investment** of \$1.52 for every dollar spent on health care alone.<sup>9</sup>

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- **AMERICAN Cast Iron Pipe Company** began its WellBody Program for employees in the 1990s. The program provides comprehensive worksite wellness support, including access to an on-site fitness center, individual health coaching sessions, and exercise instructors. The high levels of physical activity have contributed to an **overall health risk reduction** of 9 percent, and an estimated **return on investment** of \$1.70 for every dollar spent.<sup>10</sup>
- A 2009 **scientific review** of 28 studies that examined physical activity in the workplace found that comprehensive, multicomponent worksite health promotion programs with physical activity components result in positive effects, including significant **improvements in health outcomes, reduced absenteeism, reductions in sick leave, and positive returns on investments**.<sup>11</sup>

## How can employers help employees increase physical activity levels?

Given the extensive health and business benefits that come from a physically active workforce, employers are interested in learning how they can increase physical activity levels in their workplaces. We have prepared the following recommendations and specific strategies using evidence-based literature reviews and interviews with leading experts. Scientific research and expert opinion supports the following strategies:

### Expert Interviewees:

**[Steven N. Blair, P.E.D.](#)** is a professor in the Departments of Exercise Science and Epidemiology and Biostatistics at the Arnold School of Public Health, University of South Carolina. Dr. Blair is a Fellow in the American College of Epidemiology, Society for Behavioral Medicine, American College of Sports Medicine, American Heart Association, and American Kinesiology Academy; and was elected to membership in the American Epidemiological Society. He was the Senior Scientific Editor for the U.S. Surgeon General's Report on Physical Activity and Health.

**[Ross C. Brownson, PhD](#)** is the Director of the Prevention Research Center at Washington University in St. Louis, and has joint appointments as a member of the Faculty Advisory Council of the University's Institute for Public Health and in the University's School of Medicine. He is the president of the American College of Epidemiology, the leader of numerous research projects, and is the editor or author of several books on public health issues.

**[Greg Heath, DHSc, MPH](#)** is a professor of exercise science in the Department of Health & Human Performance at the University of Tennessee, Chattanooga. He is a fellow in the American College of Sports Medicine and a fellow in the American Heart Association through their Council on Epidemiology and Prevention. His research focuses on community-based approaches to promoting physical activity, physical activity epidemiology, and provider-based approaches to assessment and counseling for physical activity and diet.

**[Qaiser Mukhtar, PhD](#)** is the lead for Worksite Physical Activity efforts for the CDC. Her work focuses on increasing physical activity among all US workers by improving worksite-offered physical activity supports.

**[Nico Pronk, PhD](#)** is vice president for health management, chief science officer at HealthPartners and an Adjunct Professor of Social and Behavioral Sciences in the Harvard T.H. Chan School of Public Health. Dr. Pronk is a Fellow of the American College of Sports Medicine and the Association for Worksite Health Promotion. His research focuses on the role of physical activity in health, and the impact of multiple health behaviors on health outcomes. He is the editor of the American College of Sports Medicine's Worksite Health Handbook.

**[Miriam Nelson, PhD](#)** is director of the John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention and Professor of Nutrition at the Friedman School of Nutrition Science and Policy at Tufts University. She is also a fellow of the American College of Sports Medicine, the founder and director of the StrongWomen Program, and the author of several international best-selling books on wellness.

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#### 1. Build a culture of health.

The experts agree there is no “one size fits all” physical activity program, but there are certain key components that are part of most, if not all, successful programs. One crucial step to success is building a culture of health. Dr. Nico Pronk describes a culture of health as “the idea that people are supported [in their efforts to be physically active] through an unwritten law.” This means fitting physical activity into a worker’s day-to-day workflow without asking permission from a supervisor. This also implies having written and unwritten policies and unambiguous support from leadership to encourage health promotion in the workplace. Research shows that usage rates for fitness centers are often low, and they frequently engage individuals who are already active, meaning they do not account for the majority of a comprehensive program’s health improvements. Rather, programs create change and produce impact by influencing organizational culture and motivating employees to improve health, with support from peers and managers who also engage in healthy behaviors.

Dr. Steven Blair believes that establishing a culture of health is so important that businesses “should not start a program by hiring exercise trainers and building a gym. Rather, they should hire an organizational psychologist who can advise leaders on how to create a health promoting culture.”

#### 2. Leaders should provide strong, active, and visible support.

Offering active leadership support for programs is a critical element to building a culture of health and a key to its success. It is important that leaders from all levels of the company offer support. According to Dr. Qaiser Mukhtar, having high-level leaders on board with a program is important but not sufficient; middle managers direct daily activities of employees and, unless they support workplace wellness, they may erect barriers to success. When asked her opinion of the importance of leadership support, Dr. Miriam Nelson noted that leaders need to provide “more than ‘passive permission’ (unofficial policies). Employees need to see leaders participate in programs and, through modeling, be active supporters of the program.”

#### 3. Develop partnerships and social support.

“Health promotion that is only found at the workplace is not sufficient,” says Dr. Pronk. “Taking advantage of community resources and partnerships is key to success.” Employees live in their communities, not their offices, and businesses have an opportunity to leverage their relationships with community leaders to maximize messaging and social support for healthy lifestyles. Partnerships can be especially beneficial for small businesses that lack the resources to build their own gyms or walking trails. Working with community groups can help improve neighborhood walkability, encourage active transportation, and reinforce health messages by engaging children and families through school programs.

Employers should also take advantage of opportunities to build and strengthen support networks. Social support programs help employees build, strengthen, and maintain health-based social networks.<sup>12</sup> Examples of support programs include walking clubs, social contracts about physical activity, and group exercise activities in the workplace. These programs help individuals adhere to daily physical activity goals and provide friendship and support. Workplace support networks lead to increases in time spent being physically active, increases in participants’ fitness and knowledge levels, and decreases in body fat.<sup>13</sup>

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#### 4. Use existing resources first.

According to Dr. Blair, every workplace has an existing physical activity environment waiting to be optimized: hallways, sidewalks, and stairwells. Changes need not be drastic, and might be as simple as improving lighting and placing signs to encourage stair use or beautifying the landscape around the worksite. Dr. Greg Heath notes that active transportation in urban areas has the greatest potential for achieving increased physical activity at a modest cost. He cites research that shows people who walk, bike, or take public transportation to work are more physically active, on average, than those who drive to work. Active transportation programs (subsidized train or bus passes, providing bikes and gear, providing showers or bike racks at worksites, and improving accessibility for bikers, walkers, and transit users) can facilitate increased physical activity at a relatively low cost. Furthermore, these programs not only increase activity levels but can also help solve parking problems and reduce pollution levels. Dr. Heath stresses that strategies to promote active transportation must be integrated into larger community planning and environmental support strategies.

Businesses can work with local governments to increase the opportunity for physical activity around the business. For example, they can ensure the continuity and connectivity of sidewalks, improve the safety (e.g., speed humps, traffic circles) and appearance (e.g., landscaping, urban artwork) of the surrounding area, and encourage the development of green spaces or other attractive destinations within walking distance of the workplace.<sup>13,14</sup> Research has shown that implementing such enhancements results in a 161% improvement in physical activity levels and can also reduce stress.<sup>15</sup>

#### 5. Create a community-wide educational campaign.

An educational campaign can improve knowledge about the benefits of physical activity and ways to overcome barriers, increase awareness about opportunities for physical activity during the workday, and increase participation in workplace-based events. Campaigns should use highly visible messages delivered through multiple channels, including announcements at meetings, emails, and newsletters. Campaigns may also include broad-based outreach activities, such as self-help groups, counseling, risk factor screenings, and health education activities offered at the workplace.<sup>16</sup> Sample campaigns designed for the workplace (or that can be adapted to the workplace) can be found online.<sup>17</sup>

#### 6. Tailor programming to employee needs and desires.

“People are motivated to be active for different reasons,” says Dr. Nelson; thus, tailored programming is needed. New technologies like wearables and fitness apps may provide the extra push that less active employees need, while active employees may simply need peer support. Sometimes, using non-traditional approaches to improve health works best: for example, focusing on what employees value most (often, not their health). Dr. Ross Brownson suggests, “Instead of framing a walk as a way to improve health, frame it as a time for family bonding.” Including family members can also help connect the program to employees on a personal level, and provide social support to maintain healthy behaviors.

Research suggests that establishing personalized health behavior change programs that teach skills tailored to individuals’ needs and preferences is highly beneficial. Skill-building programs can include goal-setting, self-monitoring and self-reward, developing social support and problem solving skills, and preventing relapse.<sup>13</sup> These programs have been shown to increase physical activity levels, energy expenditure, and lung capacity.<sup>13</sup> Sample programs designed for (or adaptable to) the workplace can be found online.<sup>14</sup>

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#### 7. Target multiple factors to help maximize success.

Because physical activity covers a range of health behaviors and reinforces a number of other health promoting opportunities, addressing multiple risk factors alongside physical activity will maximize success. According to Dr. Nelson, best practice programs are multi-level and multi-component, helping build a culture of health. Dr. Pronk adds that a program should be socially and economically rewarding, relevant, and connect with employees and the business culture. This does not, however, mean that employers should try to tackle every issue at once.

#### 8. Consider using new technology to boost engagement.

Utilizing modern technology has great potential for reducing sedentary lifestyles, according to Dr. Blair. However, despite emerging evidence that new technologies can facilitate behavior change, many new apps and wearables remain untested, and their effects on behavior are not fully understood. Also, it is not clear whether technology-based interventions work as well in lower income populations. This does not mean that employers should shy away from new technologies, but rather that programs should conduct thorough evaluations to examine the effects of new strategies and share their findings with the research community. Finally, wearables can be a great tool to get employees motivated to start a program, but there is currently little evidence they can sustain behavior change over time.

#### 9. Set realistic goals, and monitor progress towards those goals.

Dr. Mukhtar stresses that one critical element of achieving goals is continuous monitoring and evaluation of progress. Monitoring and evaluation help employers identify and improve upon weaknesses, leading to better programs and healthier employees.

It is important to remember that any *net* improvement in population health is positive and, accordingly, set realistic goals. Depending on employees' baseline fitness levels, reasonable initial goals may include sitting less during the day and working toward meeting [physical activity guidelines](#), with incremental steps along the way. This is especially important when employees are engaged in physically demanding or public safety jobs (e.g., firefighters or police officers who need to achieve strength and conditioning benchmarks).

Reasonable organizational goals are also important. For example, a goal that 80% of managers visibly participate in or strongly advocate for a health promotion program within the first year can make it easier to focus on workers' goals in the second year, after leadership support has been established.

Finally, expectations must be realistic for the size of the organization. Smaller businesses will have fewer resources and some interventions will not be feasible, meaning that expectations and outcomes may be different than for large corporations with dedicated health promotion staff and greater programming capacity.

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#### **SUMMARY**

Physical activity plays an important role in employees' health, well-being, and quality of life. Employees who are healthier are more productive, require less sick leave, and have lower healthcare costs.

In order to develop a successful physical activity program in the workplace, experts recommend employers start by developing an overall company culture of health, which serves as the foundation for physical activity and related programs. A good culture of health requires company policies and supports designed to enable employees to get physically active. It also requires leaders to provide active and visible support, by serving as program champions and participating themselves.

Once this culture is established, experts recommend businesses develop partnerships in the community and use existing resources as building blocks for the physical activity program. For example, small businesses do not need an onsite gym if they take advantage of local community resources like a neighborhood YMCA.

To maximize participation and engagement, experts recommend tailoring programs to employee needs and interests. This may mean encouraging families to participate or emphasizing the social benefits of fitness activities. It is also helpful to ensure the programs are personally relevant to the employee and appropriate to the existing business culture. Other ways to boost engagement may include using technology, such as wearables or apps, and encouraging active transportation.

Finally, experts say it is important to keep reasonable goals in mind. Businesses should set goals for both individuals and for the organization, and ensure they can be achieved within reasonable time frames. Once goals are set, businesses should actively monitor and evaluate progress towards those goals.

Employers who take these steps will maximize the likelihood of developing a successful physical activity program in the workplace, benefitting employees and businesses alike.

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## References

1. Centers for Disease Control and Prevention. National Healthy Worksite Program (NHWP) - About NHWP.  
Available at: <http://www.cdc.gov/nationalhealthyworksite/about/index.html>. (Accessed: 8th May 2015)
2. Centers for Disease Control and Prevention. Healthier Worksite Initiative - HWI | DNPAO | CDC. Available at:  
<http://www.cdc.gov/nccdphp/dnpao/hwi/>. (Accessed: 13th March 2015)
3. Goetzel, R. Z. *et al.* Ten modifiable health risk factors are linked to more than one-fifth of employer-employee health care spending. *Health Aff. (Millwood)* **31**, 2474–2484 (2012).
4. Wang, F., McDonald, T., Champagne, L. J. & Edington, D. W. Relationship of body mass index and physical activity to health care costs among employees. *J. Occup. Environ. Med.* **46**, 428–436 (2004).
5. Carlson, S. A., Fulton, J. E., Pratt, M., Yang, Z. & Adams, E. K. Inadequate Physical Activity and Health Care Expenditures in the United States. *Prog. Cardiovasc. Dis.* **57**, 315–323 (2015).
6. U.S. Bureau of Labor Statistics. Economic News Release: Employer Costs for Employee Compensation. (2014).  
Available at: <http://www.bls.gov/news.release/ecec.nr0.htm>. (Accessed: 13th March 2015)
7. Fronstin, P. & Werntz, R. The ‘Business Case’ For Investing in Employee Health: A Review of the Literature and Employer Self-Assessments. (2004).
8. Kahn, E. B. *et al.* The effectiveness of interventions to increase physical activity: A systematic review<sup>1</sup>, 2 <sup>1</sup>The names and affiliations of the Task Force members are listed in the front of this supplement and at [www.thecommunityguide.org](http://www.thecommunityguide.org). <sup>2</sup>Address correspondence and reprint requests to: Peter A. Briss, MD, Community Guide Branch, Centers for Disease Control and Prevention, 4770 Buford Highway, MS-K73, Atlanta, GA 30341. E-mail: [PBriss@cdc.gov](mailto:PBriss@cdc.gov). *Am. J. Prev. Med.* **22**, 73–107 (2002).
9. The Health Project. The Health Project Winning Programs: O’Neal Industries. (2016).
10. The Health Project. The Health Project Winning Programs: AMERICAN Cast Iron Pipe Company. (2016).

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---

11. Pronk, N. P. Physical activity promotion in business and industry: evidence, context, and recommendations for a national plan. *J. Phys. Act. Health* **6**, S220 (2009).
12. Community Preventive Services Task Force. The Community Guide - Increasing Physical Activity. (2013). Available at: <http://www.thecommunityguide.org/pa/index.html>. (Accessed: 27th May 2015)
13. Community Preventive Services Task Force. The Community Guide: Physical Activity, Behavioral: Individually-Adapted Health Behavior Change Programs. (2014). Available at: <http://www.thecommunityguide.org/pa/behavioral-social/individuallyadapted.html>. (Accessed: 27th May 2015)
14. National Cancer Institute. Research-tested Intervention Programs: Physical Activity Intervention Programs. (2014). Available at: [http://rtips.cancer.gov/rtips/rtips\\_search.do?topicid=2&cg=30&choice=cguide](http://rtips.cancer.gov/rtips/rtips_search.do?topicid=2&cg=30&choice=cguide). (Accessed: 27th May 2015)
15. Community Preventive Services Task Force. The Community Guide - Summary - Physical Activity, Behavioral: Social Support Interventions in Community Settings. (2015). Available at: <http://www.thecommunityguide.org/pa/behavioral-social/community.html>. (Accessed: 27th May 2015)
16. Community Preventive Services Task Force. The Community Guide-Summary-Physical Activity, Campaigns: Community-Wide Campaigns. (2014). Available at: <http://www.thecommunityguide.org/pa/campaigns/community.html>. (Accessed: 27th May 2015)
17. National Cancer Institute. Research-tested Intervention Programs: Community-wide Campaigns and Informational Approaches. (2013). Available at: [http://rtips.cancer.gov/rtips/rtips\\_search.do?topicid=2&cg=23&choice=cguide](http://rtips.cancer.gov/rtips/rtips_search.do?topicid=2&cg=23&choice=cguide). (Accessed: 27th May 2015)