



PROMOTING

PHYSICAL ACTIVITY IN THE WORKPLACE

There are numerous health benefits associated with physical activity, which include reduced risk of heart disease, stroke, diabetes, high blood pressure and high cholesterol. Physical activity further improves cardiovascular health, strength and overall wellbeing.

Promoting an active lifestyle in and around the workplace begins by creating an awareness of the benefits of certain activities and then encouraging their adoption as part of one's day-to-day routine. The goal of leadership should be to make the healthy choice the easy choice. Depending on local priorities, baseline data, resources and geographical characteristics, the following potential interventions are provided:

- stair prompts
- physical activity promotionals
- walking routes within and around the workplace
- wellness fairs
- workplace challenges
- bike storage
- flextime for wellness activities
- bike and walk supports
- public transit supports
- physical activity breaks

The fact sheets are designed as a resource for PSP and Health Services Personnel to support chain of command decision-making. Each fact sheet explains the intervention, describes how to implement it, and gives an idea of the behavioural impact that could be expected once in place. Elements such as stair prompts and public transit supports will certainly not be relevant in all locations – it is up to your local steering committees to determine what interventions make sense for your base/wing.





STAIR PROMPTS

Stair prompts are motivational signs placed near stairwells, elevators or escalators to encourage individuals to increase stair use. The prompts can inform people about the health or weight loss benefits from routinely taking the stairs. Use them in workplaces or public venues such as gyms as a reminder to be active every day.

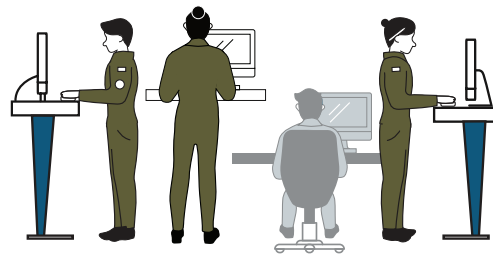
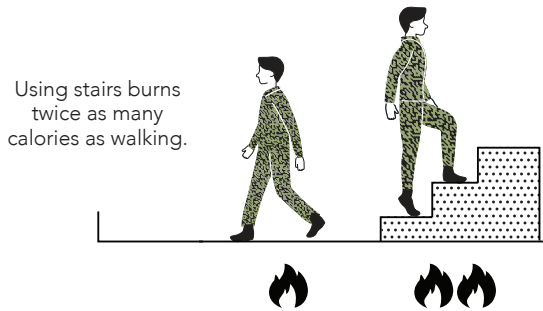
THE BENEFITS

Regular stair use has been linked with numerous health benefits, including reduced stroke risk, greater lower limb strength, reduced cholesterol levels, and improved cardiovascular health. Also, stair use in the workplace is a great way to cope with job-related stress. Using the stairs helps burn calories and assists in weight management. Just two minutes of stair climbing per day can burn enough calories to prevent the average annual weight gain in adults.

HOW TO BEGIN

To implement stair prompt signage in your workplace use the template in the annex of this document.

- Print and customize.
- Post near elevators and stairs and don't forget to include directional signage if the stairs are hidden!

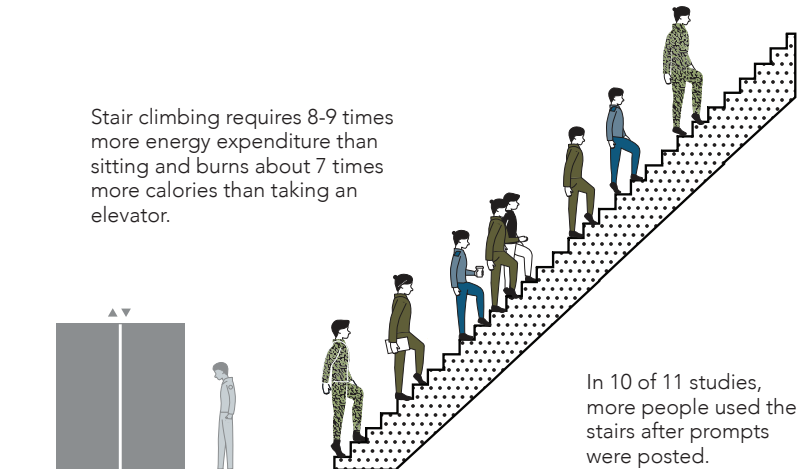


Personnel with work place stair prompts are 72% more likely to report being active while at work.



Men climbing 20-30 flights of stairs per week have a 29% lower risk of stroke.

Stair climbing requires 8-9 times more energy expenditure than sitting and burns about 7 times more calories than taking an elevator.



In 10 of 11 studies, more people used the stairs after prompts were posted.





PHYSICAL ACTIVITY PROMOTIONALS

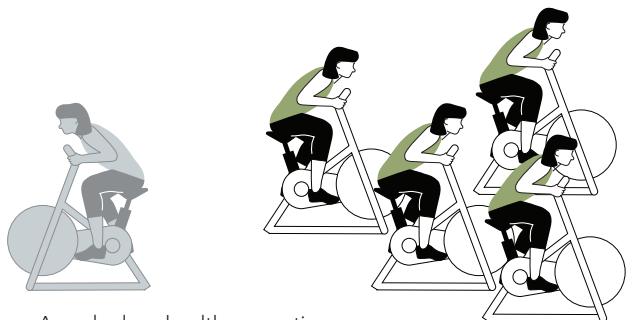
Physical activity promotionals are information such as posters, brochures, emails, or lectures encouraging personnel to be active. They are designed to increase activity through awareness and motivation.

THE BENEFITS

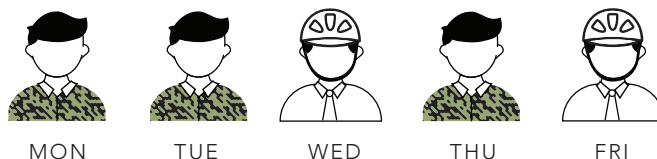
Physical activity promotionals can decrease barriers, increase participation, and increase readiness to participate in workplace physical activity. Studies using informational media saw a 25% increase in energy expenditure when workplaces have access to places to be physically active. Informationals do not need to be expensive or time consuming – adding humor, statistics, weekly healthful tips and quotes into physical activity promotional sources makes the message more meaningful.

TIPS

- Post in highly visible areas.
- Change information regularly.
- Provide relevant and timely information.
- Use an active email headline that will attract reader's attention.
- Content ideas can be found at:
 - » *Health Canada - Healthy Living*
 - » *Public Health Agency of Canada - Physical Activity Tips for Adults'*



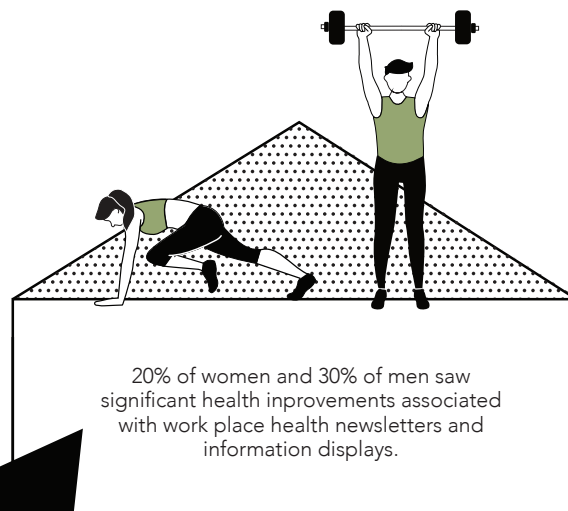
A work place health promotion program with informational media saw an 84% increase in exercise.



Information media in work places encouraging bicycle commuting can lead to personnel cycling to work more than once per week.



Personnel with access to promotional materials were 38% more likely to meet physical activity guidelines.



20% of women and 30% of men saw significant health improvements associated with work place health newsletters and information displays.





WALKING MAPS

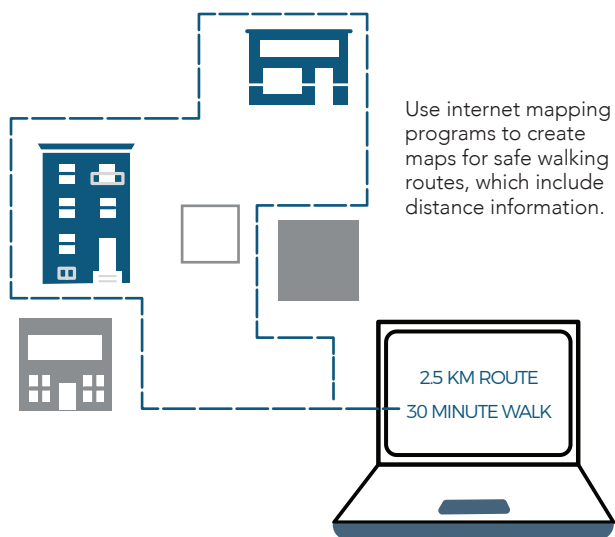
Walking maps are signs or maps of walking routes within the workplace or in the surrounding neighborhood. They are of varying distances and often provide information such as number of steps, time, or calories burned in completing a route. Use them for new employee orientation, getting to know the best destinations and lunch spots around the workplace, routes for walking meetings, walking groups, and walking breaks.

THE BENEFITS

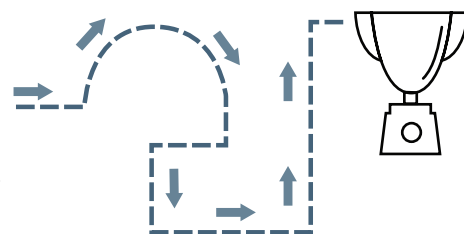
Walking maps are great resources to increase the likelihood personnel will make walking part of their regular routine, especially when they include elements such as wayfinding, marked distances, varying lengths, and destination points. They provide safe, accessible, and convenient routes and act as a cue-to-action to get moving while at work.

HOW TO BEGIN

- Identify safe and accessible routes.
 - » *Measure distance, time, calories burned.*
 - » *Mark distance along route.*
- Create a map for posting and available online.
- Host a kick-off event or workplace competition to increase awareness.
 - » *Encourage tracking.*
- Update routes and information as needed.¹



Use walking maps associated with doubling likelihood of meeting weekly physical activity recommendations.



Personnel with accessible walking maps take 38% more steps while at work.



Post the walking maps in visible places, such as bulletin boards, main entrances, or web sites to encourage use.





WELLNESS FAIRS

One of the most common starting points for a workplace health promotion program is a health fair. At these events various booths are set up from the base clinic, local PSP service providers (fitness, recreation, health promotion), the MFRC, and other partners to educate personnel about a variety of health issues. Educational topics include health screenings, wellness, fitness, and lifestyle improvements. Health fairs are advertised and promoted ahead of time and are usually an annual or semi-annual event.

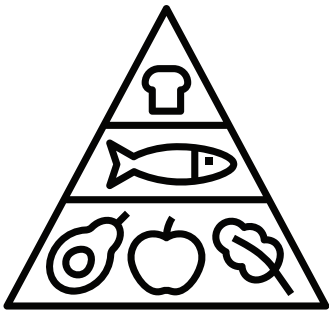
THE BENEFITS

Health fairs can be a fun, interactive, and informative way to encourage a healthier and more productive workforce. Health fairs provide value as an opportunity to expose a large number of personnel to health promotion activities and goals, decrease resistance, increase knowledge, and create awareness of wellness options. In one evaluation of a workplace health fair, almost 80% of personnel reported lifestyle changes as a result of attending the health fair while most also reported sharing information with family and friends.

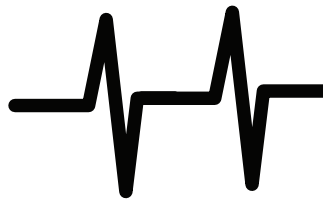
HOW TO BEGIN

To provide a successful health fair at your workplace:

- Start planning far in advance.
 - » *Coordinate with local service providers.*
- Assess employee interests and needs.
- Collect survey feedback after event is over.

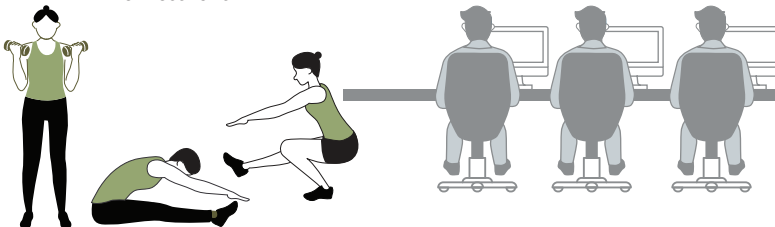


Health fairs with nutrition and cancer assessments and education effectively influence positive behaviour change in adults and children.

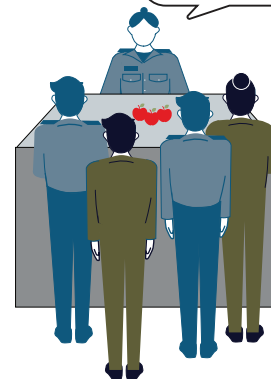


Health fairs can raise the profile of a work place's wellness activities and provide an opportunity for personnel to become immediately engaged through screenings, assessments, or interventions that are made available at the event.

Personnel are 55% more likely to meet physical activity guidelines when workplaces host health and wellness fairs.



71% of personnel report attending workplace fairs if available.



WORKPLACE CHALLENGES

Workplace challenges encourage exercise or weight loss by emphasizing social support and having fun through interactive competition. This usually includes total team steps taken or percent of weight loss.

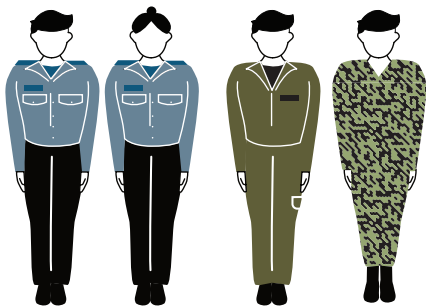
THE BENEFITS

Evidence suggests that team-based competitions are more effective than individual workplace interventions. Implementation of workplace challenges have shown to improve health, reduce absenteeism, and improve morale. Increase productivity In a US CDC workplace challenge, 75% said the challenge created a sense of social support and 79% met their physical activity goals.

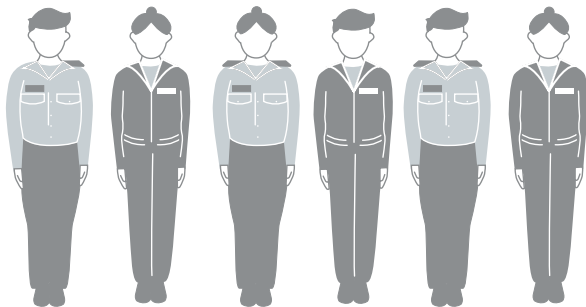
HOW TO BEGIN

To create your own workplace challenge follow these steps:

- Plan who, what, when, how.
- Use existing templates to get started.¹
- Communicate and recruit.
- Implement including incremental recognition and achievements.
- Evaluate.
- Build on existing workplace challenges such as the CAF Health and Wellness Challenge.



In a statewide work place weight loss contest, almost 40% of employee participants lost 10 or more pounds.



Personnel with access to work place challenges were over

5X MORE LIKELY

to meet physical activity guidelines.



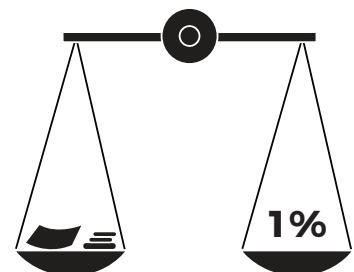
71% of personnel participating in a work place weight loss competition reported improving work place morale.

Cost Effective

Work place wellness team competition resulted in an estimated cost of \$1.45 to lose 1% of body weight.



In a 2014 statewide work place weight loss contest, 114,511 lbs total were lost.





BIKE STORAGE

Bicycle storage facilities include secure locations to lock bicycles, but may include covered parking, lockers, and showers as additional amenities and supports to bike to work. Surveying personnel can help determine amount of parking needed.

Ideal bike facilities will be well lit and clearly labeled, accessible by ramp, located close to the workplace building, sheltered from the elements and sufficiently protected from automobile parking.

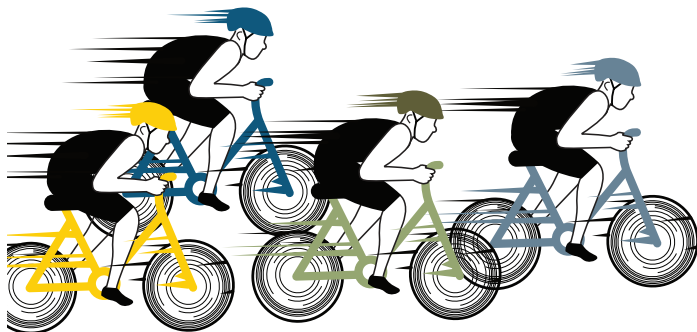
THE BENEFITS

Bicycle storage increases bike commuting rates and raises perception of bicycling convenience. Studies show that having bicycle storage increases likelihood of bike commuting, being physically active, and if properly sited can reduce transition time between commute and work.

Bike storage is more likely to be used if it is covered and includes conveniences for storing helmets and other gear, an air

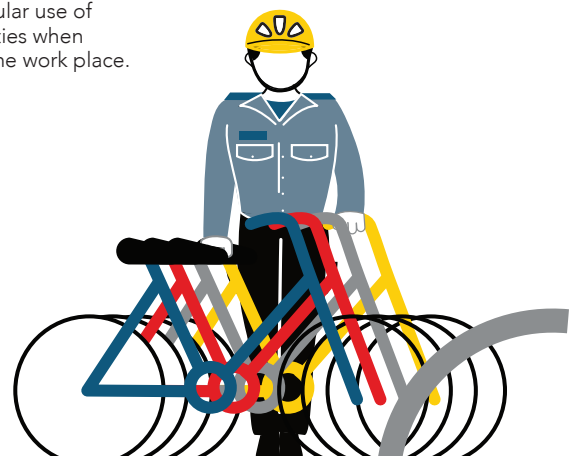
pump, and simple tools.

Providing worktime for physical activity on a military base improved the fitness of personnel. Average levels of sleep were significantly higher for personnel who agreed that their employer provided sufficient time flexibility in contrast to personnel who felt the company flexibility did not meet their needs.



Personnel using bike storage are up to 4.5 times more likely to meet physical activity guidelines.

68% of bicycle commuters reported regular use of storage facilities when available at the work place.



Personnel with bike storage facilities available are over 12x more likely to bike to work.





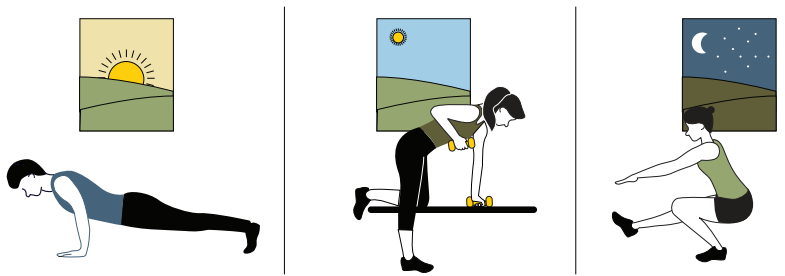
FLEXTIME FOR WELLNESS ACTIVITIES

Flexitime for wellness activities is when employers permit personnel to shift their schedules and come in earlier or leave later to allow physical activity or participation in health promotion programming before, during, or after work. This type of policy can be useful in creating opportunities for personnel to engage in physical activity yet maintain their expected number of work hours.

THE BENEFITS

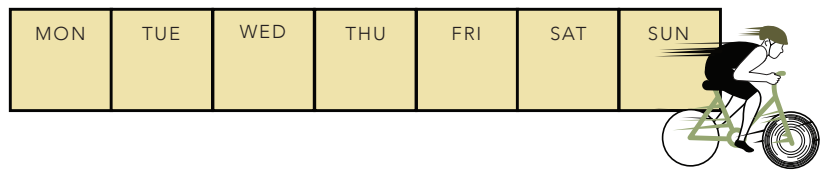
The flexitime policy allows personnel to overcome one of the most common barriers to being physically active - time. Benefits include increased participation in physical activity, reduced stress at work, increase in average levels of sleep, and improved workplace morale.

Physical activity participation increased 55% when personnel used work place flex-time supports.

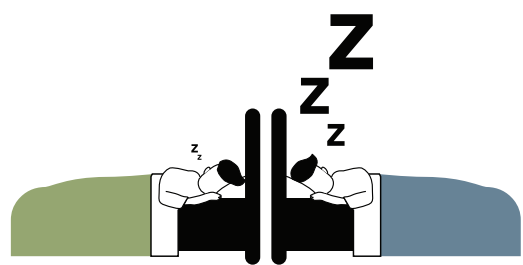


The use of stress management techniques were higher for personnel provided with time flexibility.

Personnel using flexitime for physical activity are up to 128% more likely to meet weekly physical activity guidelines.



Providing worktime for physical activity on a military base improved the fitness of personnel.



Average levels of sleep were significantly higher for personnel who agreed that their flexibility in contrast to personnel who felt the company flexibility did not meet their needs.



BIKE & WALK SUPPORTS

Supports can increase motivation and participation in activities that support healthy behaviors. They can send a message that the organization supports the commitment to employee health. Workplace supports to encourage active commuting to work include: commuter tax benefits, cash or financial supports, bicycle gear discounts, guaranteed ride home (e.g., due to bad weather, employee illness).

THE BENEFITS

The benefits of including bike/walk supports within workplaces include a decrease in health care costs as well as a decrease in obesity, high cholesterol and smoking. Workplace that implement bike/walk supports have seen an increased interest in bicycling to work.

45% of survey respondents reported they would be more likely to commute to work if financial supports were implemented at their work place.

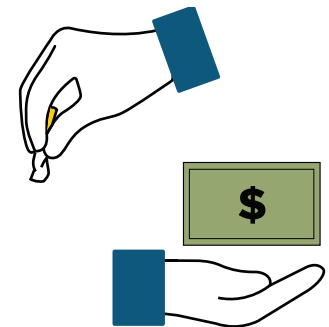


HOW TO BEGIN

To provide a successful health fair at your workplace:

- Ask personnel what rewards are motivational.
- Ensure every participant that achieves a goal receives recognition.
- Focus on behaviour change and avoid rewards for biometric changes (i.e., pounds lost).
- Provide each person who enrolls with a small thank you such as bike bell, ankle band, reflective gear, or light
- Encourage the use of dfit.ca.

The implementation of monetary rewards for staff who engage in healthy behaviours resulted in a decrease of obesity, high cholesterol, smoking, and high blood pressure prevalence over the course of the study.

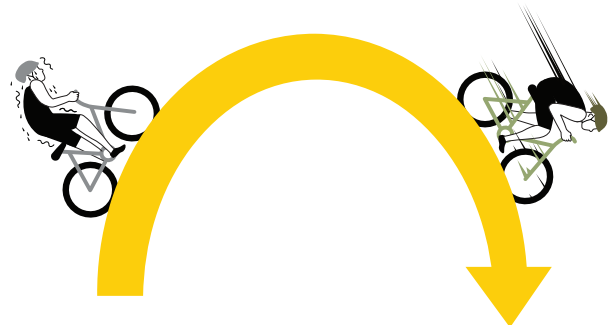


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Personnel are up to 5 times more likely to meet recommended levels of weekly physical activity if they use work place supports to bike or walk.

When bicycling commuting is incentivized using health care costs, health care premiums decrease by 4.4% compared to an average increase of 25% for similar companies that do not offer such supports.





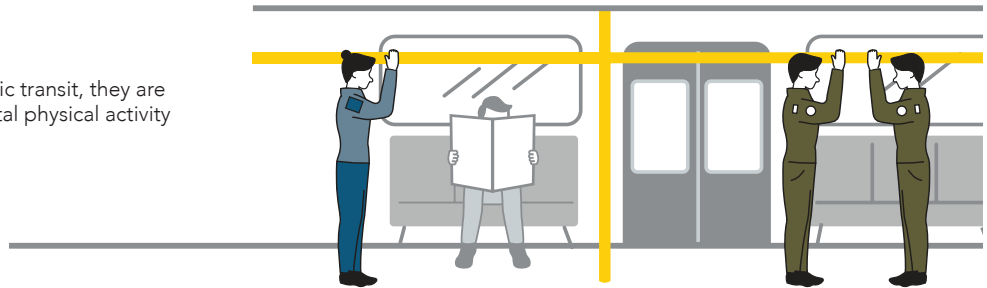
PUBLIC TRANSIT SUPPORTS

Public transportation can include buses, subway systems, trains, trams, trolleys, or rapid transportation systems. Transit users may achieve 30 minutes of physical activity daily solely by walking to and from transit stops. Workplace supports that encourage this type of commute include free or discounted bus, rail or transit passes, reimbursements, partial payments, or pretax payroll deductions offered through subsidy programs. Offering supports to encourage personnel to use existing public transit options decreases costs for individual vehicular transport as well as helps personnel achieve weekly physical activity recommendations.

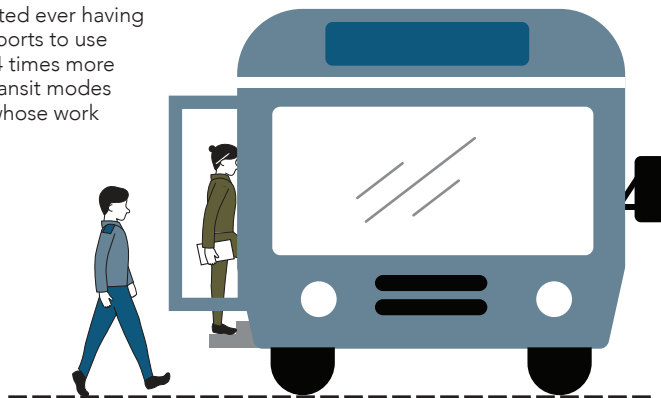
THE BENEFITS

When personnel receive free public transit passes, car usage can reduce by up to 20% and can lead to a 50% increase in usage of public transport. Additionally, using public transit can lower crash rates, improve air quality, and can reduce traffic congestion and related rush hour stress.

When personnel use supports for public transit, they are about 2.5 times more likely to meet total physical activity recommendations at work.



Personnel who reported ever having used work place supports to use public transit were 24 times more likely to use public transit modes compared to those whose work places no such



Eligibility for free transit passes was associated with a 51% increase in the likelihood of using public transit.

Public transit use in order personnel who associated with 21% lower chance of being obese



PHYSICAL ACTIVITY BREAKS

Get up from your desk! Implementing active breaks in the workplace is a way to incorporate customizable physical activity into the workday. Even three short periods of brisk walking in bouts of 10 minutes or more accumulated throughout the day is as effective as one continuous 30 minute brisk walk in reducing cardiovascular risk and improving mood in people who were previously sedentary.

THE BENEFITS

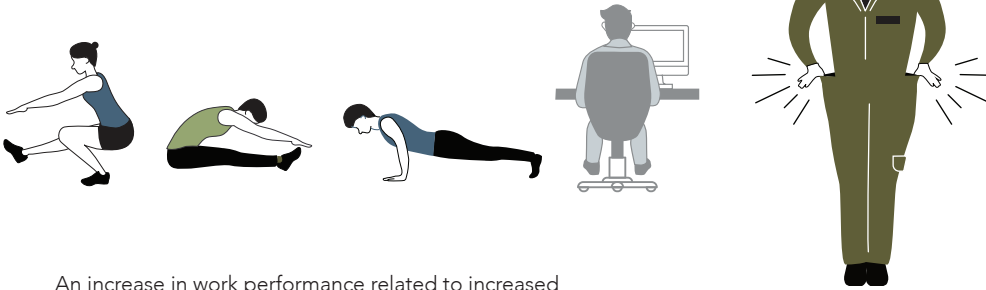
Personnel show increased work performance and productivity with active breaks. There are multiple health improvements such as: lower blood sugar, lower waist circumference, and improved perception of personal health status. Using physical activity breaks within the workplace are shown to decrease feelings of stress and depression.

Invite your local PSP personnel into your workplace to lead activity breaks. Find existing activity break examples in other workplaces for reference.

ACTIVE BREAK EXAMPLES

- Standing and walking meetings.
- Meeting spaces designed to encourage standing without blocking view, such as height tables, standing desks, or treadmill desks.
- Chair yoga.
- Smartphone apps and computer programs to remind you to stand and stretch.

70% of personnel believe employers should provide time during the workday to exercise.



Taking non sedentary breaks at work associated with up to 6cm smaller waist size.

An increase in work performance related to increased physical activity was found after introducing physical activity breaks in the work place.



Personnel are up to 3x more likely to meet physical activity guidelines when they use physical activity breaks at work.



REFERENCES

STAIR PROMPTS

The Guide to Community Preventive Services (2014). Environmental and policy approaches to physical activity: point-of-decision prompts to encourage use of stairs. Center for Disease Control and Prevention. || Whitby, N. (2014). StepJockey: Twenty amazing stair climbing facts. || Paffebarger, R.S., Hyde, R.T., Wing, A.L., and Hsieh, C.C. (1997). Physical activity, all-cause mortality, and longevity of college alumni. *New England Journal of Medicine*, 314, 605-613. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA.

Primary and secondary research by J. Aaron Hipp, PhD, and Margaret van Bakergem, MPH, North Carolina State University. || Designed for the Canadian Armed Forces by Jacquie Goyena, North Carolina State University.

PHYSICAL ACTIVITY PROMOTIONALS

<http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/07paap-eng.php> || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Kahn, E.B., Ramsey, L.T., Brownson, R.C., Heath, G.W., Howze, E.H., Powell, K.E., Stone, E.J., Rajab, M.W. and Corso, P. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22,73-107. || Ickes, M., and Sharma, M. (2009). Workplace health promotion: A practical strategy for obesity prevention. *American Journal of Health Studies*, 24,343-352. || Kahn, E.B., Ramsey, L.T., Brownson, R.C., Heath, G.W., Howze, E.H., Powell, K.E., Stone, E.J., Rajab, M.W. and Corso, P. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22,73-107.

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WALKING MAPS

http://www.eatsmartmovemorenc.com/WalkingMapGuide/Texts/WalkingMapGuide_lowrez.pdf || Hipp, J.A. (2015). Workplace policies and supports for physical activity. 2015 Active Living Research Conference, San Diego, CA. || Warren, B.S., Maley, M., Sugarwala, L.J., Wells, M.T., and Devine, C.M. (2010). Small steps are easier together: A goal-based ecological intervention to increase walking by women in rural workplaces. *Preventive Medicine*, 50, 230-234.

Primary and secondary research by J. Aaron Hipp, PhD, and Margaret van Bakergem, MPH, North Carolina State University. || Designed for the Canadian Armed Forces by Jacquie Goyena, North Carolina State University.

WELLNESS FAIRS

http://www.projecthealth.ca/sites/default/files/files/DOCS_ADMIN-%231499504-v8B-Toolkit_-_Planning_A_Health_Fair_-_Project_Health_-_April_2014.pdf || Tabak, R.G., Hipp, J.A., Marx, C.M., Yang, L., and Brownson, R.C. (2016). Which workplace supports for healthy weight do personnel use? *Environment and Behavior*, 48,131-149. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Mattke, S., Schnyer, C. and van Busum, K.R. (2012). A review of the U.S. workplace wellness market. Rand Health. Prepared for the U.S. Department of Labor and the U.S. Department of Health and Human Services, Rand Corporation. || Carter, K.F. (1991). The health fair as an effective health promotion strategy. *American Association of Occupational Health Nurses*, 39,513-516.

Primary and secondary research by J. Aaron Hipp, PhD, and Margaret van Bakergem, MPH, North Carolina State University. || Designed for the Canadian Armed Forces by Jacquie Goyena, North Carolina State University.

WORKPLACE CHALLENGES

https://www.durham.ca/departments/health/physical_activity/resources/workplace/wpActivityChallenge.pdf || Anderson, L.M., Quinn, T.A., Glanz, K., Ramirez, G., Kahwati, L.C., Johnson, D.B., ...and Katz, D.L. (2009). The effectiveness of workplace nutrition and physical activity interventions for controlling employee overweight and obesity: A systematic review. *American Journal of Preventive Medicine*, 37, 340-357. || Breaux-Shropshire, T., Whitt, L., Oster, R.A., Lewis, D., and Shropshire, T.S. (2015). Results of an academic, health care workplace weight loss contest for Southeastern Americans: Scale Back Alabama 2011-2013. *Workplace Health and Safety*, 63, 165-169. || Brownell, K.D., Cohen, R.Y., Stunkard, A.J., Felix, M.R., and Cooley, N.B. (1984). Weight loss competitions at the work site: Impact of weight, morale and cost-effectiveness. *American Journal of Public Health*, 74, 1283-1285. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Hammond, S.L., Leonard, B., and Fridinger, F. (2000). The Centers for Disease Control director's physical activity challenge: An evaluation of a workplace health promotion intervention. *American Journal of Health Promotion*, 15, 17-20.

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BIKE STORAGE

Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Jackson, M.E., and Ruehr, E.O. (1998). Let the people be heard: San Diego bicycle use and attitude survey. *Journal of the Transportation Research Board*, 1636, 8-12. || Kaczynski, A.T., Bopp, M.J., and Wittman, P. (2010). Association of workplace supports with active commuting. *Preventing Chronic Disease*, 7, A127. || Pucher, J., Dill, J., and Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: An international review. *Preventive Medicine*, 50, s106-s125.

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FLEXTIME FOR WELLNESS ACTIVITIES

Sallis, J.F., Bauman, A., and Pratt, M. (1998). Environmental and policy interventions to promote physical activity. *American Journal of Preventive Medicine*, 15, 379-397. || Wigand, D., Welton, M., Spaulding, A., and Coles, C. (2004). Healthy Maine Partnerships: Good Work! Resource Kit. Maine Department of Health and Human Services and Maine Center for Disease Control and Prevention. || Grzywacz, J.G., Casey, P.R., and Jones, F.A. (2007). The effects of workplace flexibility on health behaviors: A cross-sectional and longitudinal analysis. *Journal of Occupational & Environmental Medicine*, 49, 1302-1309. || Kruger, J., Yore, M.M., Bauer, D.R., and Kohl, H.W. (2007). Selected barriers and supports for workplace health promotion services and policies. *American Journal of Health Promotion*, 21, 439-447. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA.

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BIKE & WALK SUPPORTS

Pronk, N.P., Simon, B.C. and Gaikowski, J. (2014). Bicycling to work at Quality Bicycle Products: A case example for active transportation in the business and industry sector. *Health & Fitness Journal*, 18, 49-52. || Poole, K., Kumpfer, K., and Pett, M. (2001). The impact of an support-based workplace health promotion program on modifiable health risk factors. *American Journal of Health Promotion*, 16, 21-26. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Reasons why bicycling and walking are and are not being used more extensively as travel modes. U.S. Department of Transportation: Federal Highway Administration. Publication No. FHWA-PD-92-041

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PUBLIC TRANSIT SUPPORTS

Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Martin, A., Suhrcke, M., and Ogilvie, D. (2012). Financial supports to promote active travel. *American Journal of Preventive Medicine*, 43, e45-e57. || Yang, L., Hipp, J.A., Adlaka, D., Marx, C., Tabak, R., and Brownson, R.C. (2015). Factors influencing choice of commuting mode. 2015 Active Living Research Conference, San Diego, CA. || Martin, A., Suhrcke, M., and Ogilvie, D. (2012). Financial supports to promote active travel. *American Journal of Preventive Medicine*, 43, e45-e57.

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PHYSICAL ACTIVITY BREAKS

¹https://www.ccohs.ca/oshanswers/psychosocial/active_living.html || Healy, G.N., Dunstan, D.W., Salmon, J., Cerin, E., Shaw, J.E., Zimmet, P.Z., and Owen, N. (2008). Breaks in sedentary time. *Diabetes Care*, 31, 661-666. || Taylor, W.C. (2005). Transforming work breaks to promote health. *American Journal of Preventive Medicine*, 29, 461-465. || Hipp, J.A. (2015). Workplace Policies and Supports for Physical Activity. 2015 Active Living Research Conference, San Diego, CA. || Barr-Anderson, D.J., AuYoung, M., Whitt-Glover, M.C., Glenn, B.A., and Yancey, A.K. (2011). Integration of short bouts of physical activity into organizational routine: A systematic review of the literature. *American Journal of Preventive Medicine*, 40, 76-93. || Canadian Society for Exercise Physiology. (2011). Canadian Physical Activity Guidelines – Adults (18-64 years). Retrieved November 7, 2012 from the World Wide Web. <http://www.csep.ca/guidelines>

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