



FLOW INTO BETTER HEALTH

A Health Promotion Program to enhance work
performance and ignite positive lifestyle
behaviors

EXOS[®]

COMPANY BIOGRAPHY

Our program, “Flow into Better Health” has one mission: Get the inactive employees at a large software technological company in Pittsburgh to begin living a physically active lifestyle! We are working with EXOS, a human performance company that was founded in the late ‘90s and has an established reputation in areas of healthcare, corporate wellness, and sports performance. EXOS’ goal is to help people reach higher and achieve more. Their health specialist has that nearly 50% of the employees are currently physically inactive, and has asked for our help. We have a health promotion program which is designed to provide people with the skills to take control of their own health through positive lifestyle changes. In addition, we want to consistently remind and educate the software company employees that regular activity can improve work performance and mental health, increase social health and goal setting, along with preventing conditions that can decrease work performance and quality of life. Not only do we know our program will be successful, we expect it to last a lifetime!



Team Member Biographies

- Gina Cappa has a special interest in post rehabilitation performance. She aspires to work with the general public to increase chronic disease awareness and create programs suitable for pediatric weight management. She has her Bachelors and Masters Degree from the University of Pittsburgh in Health, Physical Activity, and Chronic Disease.
- Marisa Galli earned her Bachelor's Degree in Exercise Science and pursued a graduate program at Pitt to further achieve her goal of working as an Exercise Physiologist in Cardiac Rehab. Her goal is to improve health outcomes in chronic disease patients. She is also a certified strength and conditioning specialist and
- Bowe Myers is from the small community of Leechburg, PA shortly north of Pittsburgh. He is the oldest of three siblings. In his spare time, Bowe enjoys sporting and theater events. His hobbies include fishing, cooking, and traveling.
- Nathan Parry is from Washington, PA. He is a health and physical education teacher at McGuffey School District. Nathan enjoys coaching high school football and middle school basketball, skiing, hunting, fly fishing and working out.
- Leigh Anne Tarabocchia is originally from Northern New Jersey and traveled to the University of Pittsburgh to earn her Bachelors and Masters Degree in Health, Physical Activity, and Chronic Disease. Her interests include dance, group fitness instruction and going to concerts.

ACKNOWLEDGEMENTS

Health Coach

We would love to thank our Health Champion for all of his guidance and insight on our health program for the software company employees. is a former University of Pittsburgh graduate and a current employee of EXOS in Bakery Square. His feedback has been critical in the development and implementation of our final product. We are thankful to have such a knowledgeable health champion to help us help others.

Graduate Professor

We would also love to thank who led the charge on our health program development. He has given us the tools necessary for us to achieve a completed product. He is an associate professor at the University of Pittsburgh in the School of Education. He works with many community partners to develop successful health promotion programs.

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Section 1

Implementation

INTRODUCTION

A large software technology corporation in Pittsburgh has over 700 employees and is continuously growing. Several of the employees are software engineers and love solving problems, however nearly half of them don't love solving their physically inactive lifestyle problem. Whether it be from a lack of interest in fitness, feeling embarrassed, a previous injury, they feel it is too time consuming, or a fear of leaving work, their lack of physical activity has become a growing health concern. EXOS, a health and human performance corporation, has teamed up with this corporate technology company in an attempt to improve the overall lifestyle of their employees.

These employees have several opportunities for increasing their physical activity such as access to fitness centers & equipment, exercise & nutrition classes, and much more available at any time they want to use it. In addition, they have a dedicated exercise specialist from EXOS, who they can receive help with their exercise anytime they want! Coach is constantly looking for new ways to reach the employees that are physically inactive because understanding the benefits of physical activity and exercise may help them increase workplace performance. believes that most of these employees are in pre-contemplative stage for beginning physical activity or exercise, and he has a desire to target these individuals so they can begin living a physically active lifestyle. Through this program, employees will be encouraged to begin and a program focused on physical activity and exercise.

PROGRAM OVERVIEW

This company understands the potential benefits of having more employees engage in physical activity. We have created a program called “Flow into Better Health.” This is a 5 part program that is focused on maximizing employee health and productivity, while promoting physical activity.

The five parts of “Flow Into Better Health” are focused around:

Improving work performance

Work/life longevity

Social Support

Injury Prevention

Technology

With continuous engagement of inactive employees, we believe that the components of “Flow Into Better Health” will maximize employee health and productivity by getting them into a mental “flow state” while at work. Employees at this company love their job and want to be the best they can be. Our program will help these employees experience flow more frequently while working, which ultimately will get them better at something they love to do, their job!

DESCRIPTION & GOALS

“Flow Into Better Health” for the inactive employees has some pretty clear cut goals:

- 1. Engage inactive employees by increasing physical activity participation**
- 2. Improved & increased exercise participation**
- 3. Increase collaboration amongst employees**
- 4. Decrease fatigue**

Some initial strategies that we have for to engage the inactive employees in physical activity is to incorporate some green “follow the arrow” posters around the building which leads them towards using the stairs, or points them to _____’s office where they can receive physical activity and exercise coaching from him at any time. We also want to encourage employees to write their name down & record how many flights of steps they go up & down each day, or even if they chose the steps rather than the elevator. We will encourage employees to sign up for group “noon walks” in which they will schedule to go for a walk with some other members. Having employees play a paper basketball game or ping pong are some other ideas we have to get them up and moving. Other ideas we have are to send daily emails or alerts to stand up & walk around the office to avoid extended sitting, along with weekly/monthly physical activity team challenges. Fun, themed based activities such as a “planksgiving” challenge (timed planks the day before Thanksgiving) is something we believe can motivate employees to participate more often. We want to create advertisements for the 5 components of our program such as what “mental flow” is and how increasing physical activity can lead to more frequent flow states resulting in better work performance. Or posters/flyers that will remind them that increasing physical activity can help with their lower back pain or increase work longevity. We believe that a suggestion box employees to recommend something that they might enjoy doing would also be a good idea!

EMPLOYER ROLE

role in this will be to provide as many opportunities for these inactive employees as he can. For instance he will have to ensure that these employees have their daily physical activity participation record sheets available and organize the group walks and provide different routes they can go on to change volume and intensities. He can place the posters/flyers in areas where he feels they would be most beneficial such as on the elevator door so that maybe an employee will change their mind to use the stairs at the last second.

also send the get up and move alerts & emails and assist with employees with setting their goals for increasing their physical activity.

can also provide the smaller office basketball hoops/mobile workstations, and other recreational activities that are feasible.

will also track participation records to avoid employee dropout along with provid follow up surveys throughout the program.



PARTICIPANT ROLE

Participants will decide which type of physical activity they feel will be the most enjoyable, while beneficial, for them and track their program/facility participation records on a daily basis. We want to get employee body composition, heart rate, and blood pressure measures pre/post program and we will also need them to participate in follow up surveys throughout the program. We encourage them to set goals for themselves and attempt different exercise classes each week. The digital platform is an excellent resource for health education so we will encourage participants to use it as well.



MAXIMIZING PARTICIPATION



A primary goal of maximizing participation will be getting individuals to seek out a professional for assistance and guidance in beginning an exercise program.

Advertisements like posters with healthy tips and follow-the-arrow decor to encourage healthy choices will help encourage individuals to seek out a professional.



To assist in increasing participation levels, the program will use cost effective, easily accessible tools like exercise bands and posture sitting wedges for their workstations.

TIMELINE

Task Name	Start Date	End Date	Duration
[-] Program Preparation	09/04/17	09/15/17	10d
Email staff, post flyers around office about workshops, activities, and access to digital platform	09/04/17	09/015/17	5d
Provide suggestion box for new exercise classes	09/04/17	09/15/17	10d
[-] Screening	09/04/17	09/25/17	16d
New members review and sign PAR-Q to begin exercise classes	09/04/17	09/05/17	2d
Provide body composition, blood pressure, HR measurements	09/11/17	09/15/17	5d
Provide sign up sheet in office and gym for members to participate in group exercise classes, workplace health activities, and workshops	09/18/17	09/22/17	5d
Check # of new participants	09/25/17	09/25/17	~0
[-] Implementation	09/25/17	12/22/17	65d
Post new health information on digital platform 2-3 times/week	09/25/17	12/18/17	61d
Begin new group exercise class (i.e. Couch to 5k training)	09/25/17	11/20/17	41d
Post activity trackers around the office -step counters	09/25/17	10/30/17	26d
Mini Band workshop	09/28/17	09/28/17	1d

CONCLUDING THE PROGRAM

The program will conclude following the last workshop. At this point, the evaluation process will begin. This will consist of post-program surveys, member participation reviews, biometric re-testing, and a summary of the findings. This summary will depict the strength and weaknesses of the program to be revised and altered to improve the program for future use. This program's success can be viewed by the increase in membership activity and facility usage. Also, following the end of the program, a short concluding survey will take place to find what each individual found successful and how the program impacted them. We expect to see increases in member participation, member collaboration, and the awareness of the benefits of exercise and healthy lifestyle choices. We also expect to see decreases in fatigue. All of these benefits should relate to increased work productivity.



INTRODUCTION

Our health champion at the software company's fitness center works to improve practical knowledge and application of health behaviors - provides consultations, training, workshops

Employees are very busy and love to work!

Our goal: get everyone active!

Theoretical Foundation:

- Self-determination theory
- Health Belief Model
- Trans-theoretical Model of Change
- Positive Flow Psychology



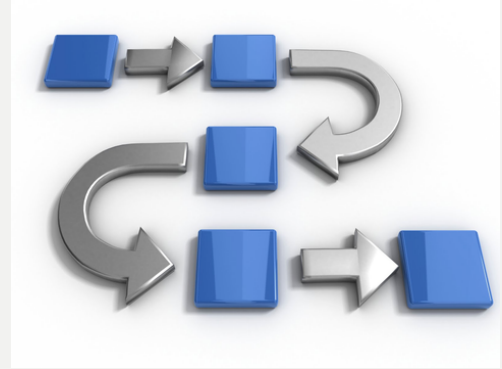
Problem? Need?

- Hundreds of employees aged 25-45
- Half are non-active
- Lack of motivation and work productivity
- Increased risk of injury and disease

HOW IT WORKS

Engagement:

- Noon walks
- Couch to 5k
- Follow the arrow
- Workplace activities
- Social engagement



Goals:

- Positive health outcomes
- Disease Prevention
- Reduce health care costs
- Improved work performance
- Enjoyment of exercise



5 Part Program:

1. Enjoy work? Work out
2. Ease your flow
3. Live happier, healthier, longer
4. Better with your buddy!
5. Hustle for the muscle!



THEORETICAL FOUNDATION

Self-Determination Theory

Self-Determination Theory: An approach that focuses on a person's psychological needs for intrinsic motivation

Self-regulation: person's motivation for change based on their value of a desired outcome (are their behaviors congruent with their desired outcomes? If not, behavior is regulated)

Example: A person values reaching a healthy weight but they are not currently active. They regulate their behavior to perform more physical activity which connects their value and action!

Autonomy:

Feeling of control over own's actions; behavior is consistent with values
Achieve through building independence small short-term goals so that workers can increase belief of control over their own actions.

Competence:

Sense of control over life's events; ability to manage behavior and perform necessary tasks. Achieve by providing useful skills to effectively carry out positive health behaviors.

Relatedness:

Feeling of belonging to a group; sense of acceptance. Achieve by creating an encouraging social environment in which workers support each other and their goals.

These 3 needs work together to provide belief that one has control and ability to carry out important life tasks and that they have support from a group. This interaction forms **intrinsic motivation** for the individual to perform the desired behavior (in this case physical activity).

THEORETICAL FOUNDATION

Health Belief Model

The **Health Belief Model** focuses on the idea that individual behaves in a way based on the value associated with a goal and their belief that a particular action will achieve that goal. Whether individual chooses to act is based on variables associated with behavior required to accomplish desired outcome.

4 Psychological variables:

Perceived Susceptibility: Belief that person is susceptible to negative outcome (in this case - health related disease, poor work performance)

Perceived Severity: If person is susceptible, how detrimental would this be to their life? Associated with what they value. If a person values work and perceives that they will be severely affected by poor performance from physical inactivity, they are more likely to become more active.

Perceived threat = Perceived susceptibility + Perceived severity

Once person has accepted the threat, then we can look at benefits/barriers to performing that behavior. We want to maximize benefits and reduce barriers!

Perceived Benefits: Is the outcome beneficial to the individual?

Increasing physical activity improves work performance would be beneficial to someone who values their work and productivity.

Perceived Barriers: What is stopping the person from performing this behavior? Lack of time is a common perceived barrier. Providing alternate strategies to complete this action reduces perceived barriers and increases the likelihood that the person will perform the behavior (early morning classes, or 10-minute physical activity breaks throughout the day).

THEORETICAL FOUNDATION

Transtheoretical Model of Change

Transtheoretical Model of Change: Describes that people move from no motivation to change towards internalizing the new behavior in a series of stages

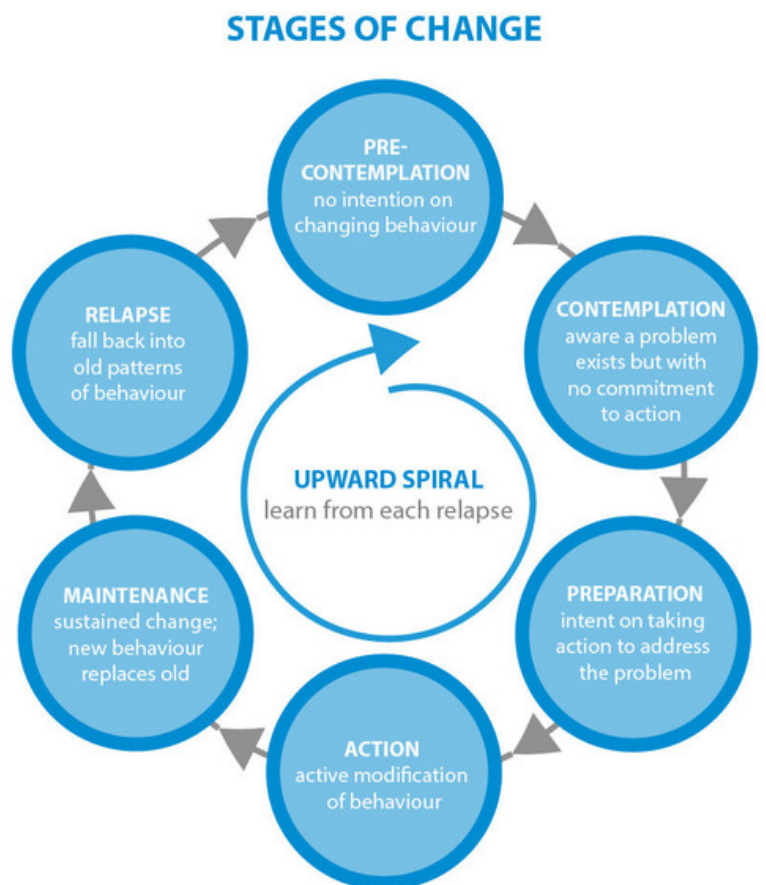
Precontemplation: not ready; person has no intention to change within the next six months. The individual may be uninformed or misinformed about the consequences of their behavior (they may not know how physical inactivity affects work performance)

Contemplation: getting ready; person is intending to take action within the next 6 months. They are aware of the pros and cons of the new behaviors and are weighing benefits vs barriers.

Preparation: ready; The individual is ready to take action within the immediate future (next 30 days). Person has begun to set up activities to facilitate change (ex: schedule fitness consultation with health coach)

Action: currently taking action in particular behavior (ex: actively attending training sessions)

Maintenance: sustaining behavior for at least 6 months. This person has adopted the new behavior as a part of their lifestyle and is actively working to prevent relapse of the old behavior.



THEORETICAL FOUNDATION

Positive Flow Psychology

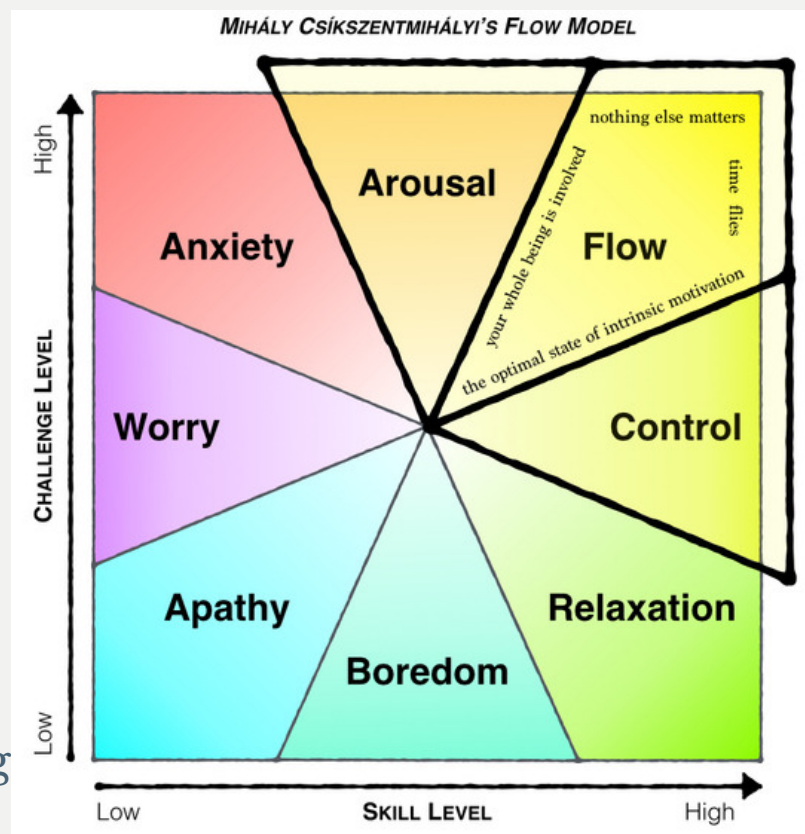
Positive Flow Psychology focuses on reaching a "flow state" in which people are most creative, productive, and happy. We use this theory to improve work performance and happiness at the workplace.

8 characteristics of flow:

- 1) Complete concentration on the task
- 2) Clearly defined goals and reward in mind + immediate feedback
- 3) Transformation of time (speeding up/slowing down of time)
- 4) Action is intrinsically rewarding, has an end point
- 5) Effortlessness and ease
- 6) Balance between challenge and skills
- 7) Integration between action and awareness
- 8) Feeling of control over the task

The focus is to use the employees' love to work and their ability to complete tasks to build intrinsic motivation. The person is motivated by their own value of the behavior rather than an incentive to complete the task.

The integration of arousal and control results in a flow state. This allows them to not only enjoy their work, but also to improve their creativity and optimize their mood while doing so!



HEALTH BEHAVIOR MEASURE

Please rate 1 to 5

1- Strongly Disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

Musculoskeletal Conditions and Chronic Diseases:

I am currently physically active (150 minutes of activity per week):

1 2 3 4 5

I find myself sitting for the majority of the work day:

1 2 3 4 5

I normally eat a nutritious diet (mostly whole foods, limited processed foods):

1 2 3 4 5

I have visited the health fitness center and met with the health specialist:

1 2 3 4 5

Work Performance

I am normally in a good mood at work:

1 2 3 4 5

I do not have difficulty focusing on work related tasks:

1 2 3 4 5

I am energized and motivated on a regular basis at work:

1 2 3 4 5

I am satisfied with the amount of work I am able to complete on a daily basis:

1 2 3 4 5

HEALTH BEHAVIOR MEASURE

Work Environment

1. I am satisfied with the social environment at work:
1 2 3 4 5
2. I have a positive attitude the majority of the time:
1 2 3 4 5
3. I am satisfied with my work/life balance:
1 2 3 4 5
4. I enjoy the kind of work I am doing:
1 2 3 4 5

Goal Setting

1. I regularly set and accomplish work-related goals:
1 2 3 4 5
2. I feel confident in my ability to accomplish my goals:
1 2 3 4 5
3. I monitor my progress at work:
1 2 3 4 5
4. I feel burnt out at work or in an activity program:
1 2 3 4 5

Longevity

1. I am satisfied with my current health habits (activity level and nutrition choices)
1 2 3 4 5
2. I get 7-8 hours of sleep every night:
1 2 3 4 5
3. I have a good understanding of how exercise and diet impact health-related outcomes:
1 2 3 4 5
4. I enjoy being physically active:
1 2 3 4 5

Section 2
Promotional
Materials

EMPLOYEE PARTICIPANT RECRUITMENT

This program will take place at software company facility located in Pittsburgh, PA. The company has an on-site health fitness center where the employees can engage in physical activity. The HFC includes a resident health fitness specialist who provides consultations, fitness assessments, personal training programs, and a variety of group exercise classes led by fitness instructors. The targeted employees will be those of a large software company who are not currently active and have access to the fitness facility. Although the focus will be the recruitment of more employees to utilize this facility, the program will also include all currently active employees as well.

To recruit employees to participate, this program will use flyers, posters, follow-the-arrow decor, along with workplace activities and events. The use of events like noon walks and bring-a-friend events will bring in more participants to engage in physical activity and encourage others to join them. Events like a couch-to-5k, will give those seeking a challenge an opportunity to learn and develop healthy lifestyle choices as they prepare for an event.

At the beginning of the program and for each new employee incorporated into the program, an initial assessment and short survey will be administered to record the participants current state of physical activity, knowledge and awareness of the topic, and other topics related to current activity levels. This short survey will help to determine future focuses of the program and where members currently are in their journey to a healthier lifestyle.

These employees already have access to a fitness facility and other tools that can be used to better their quality of life. The focus of this program is get these employees to utilize the tools already at their disposal. This program will focus on educating individuals on the benefits of physical activity, creating a healthy environment, encouraging good lifestyle choices, and helping people to reach out and make a change.

FLOW INTO BETTER HEALTH



**ENJOY WORK?
WORK OUT!**



**EASE YOUR
FLOW**



**LIVE HAPPIER,
HEALTHIER,
LONGER**



**BETTER WITH
A BUDDY**



**HUSTLE FOR
THE MUSCLE**

E-HEALTH ENVIRONMENT

The digital platform is a way for the workers to track their progress, share ideas, and access information regarding health and physical activity. Popular fitness trackers and fitness phone applications can help individuals track their daily fitness goals and assessments.

Popular apps such as MyFitnessPal can help track dietary intake, suggest nutrition value assistance and track exercise. Other fitness wearables are able to track steps throughout the day, heart rates, and activity done to reach specific goals.

A digital platform is provided to help workers interact with each other, provide encouragement and support, and educate themselves about health topics mentioned in the program. This allows them to stay engaged and motivated throughout the health promotion program. While education about diseases and the benefits of activity and nutrition are important, it is not the only thing that drives action.

Having a platform for interaction is essential to continue newly formed healthy behavior habits until workers have reached the ability to maintain them long term.



Section 3

Program Content

Session 1
Enjoy Work?
Work Out!

ENJOY WORK? WORK OUT!

MOTIVATION

Several employees can experience a lack of motivation throughout their work day. Whether it be from physical & mental fatigue, disinterest in work-related requirements, or lack of reinforcement, individuals often find it difficult to get themselves in a mental “flow state”. What exactly is a mental “flow state”?

In psychology, flow is a mental state in which one is completely immersed and engaged in an activity, wherein one is fully focused, energized and enjoys the activity in which one is immersed in. To keep it simple it means mentally “getting in the zone” with the ultimate focus to successfully complete work or a cognitive task.

This is the basis of our program “Flow into Better Health”. A beneficial solution to increasing this mental “flow state” at work, is by increasing employee physical activity throughout their workday, especially for those employees who are currently inactive.



ENJOY WORK? WORK OUT!

MOTIVATION

At a large technology corporation in Pittsburgh, over half of the employees are considered physically inactive, and could significantly benefit from and getting up and moving more often throughout their day. Physical activity can serve as an important driver for health and well-being of physically inactive work employees. This improved health and well-being of work employees will give them the following benefits:

- A better attitude towards their day.
- Effectively complete their work.
- Experience better well-being on days in which they are physically active compared to when they are physically inactive.
- Change affective experiences in different areas of life such as an employee's well-being at work.
- Recover cognitive and affective resources such as concentration and energy that would normally be depleted, if the employee were physically inactive.
- Increase accumulation of motivation throughout the day and overall at work.
- Increase employee physical activity may be able to delay fatigue, which is an important constituent of employee well-being.
- Reduced fatigue which can also lead to an increase in motivation and productivity while at work.



ENJOY WORK? WORK OUT!

MOTIVATION

Getting physically inactive employees up and moving throughout the work day can improve their overall well-being and increase their motivation to get work done efficiently and effectively. Not only can physical activity improve work related health outcomes, it can increase social interaction amongst employees which can also lead to improvements in work related motivation.



- As demonstrated in research studies conducted on employee work
- motivation, subjects conducted a “group walk” amongst inactive
- employees. These employees were able to enjoy the increases in physical activity among others who were similar in daily energy expenditure (people who are doing the same amount of activity as them!) and body compositions. This would definitely provide the following benefits:
 - A comfort level at work: connecting with co-workers
 - Increased collaboration before, during, and after work hours
 - Inactive employees can attempt to live a healthier lifestyle.
 - Overtime, transitioning from just being physically active to implementing fitness into their everyday lives.

ENJOY WORK? WORK OUT!

MOTIVATION

Given the results of this noon-walk study, and other similar studies, increasing employee's physical activity levels on a daily basis, can improve an employee's motivation to work. With something as simple as a group walk, implementing small bouts of physical activity can lead to broader implication of success for the future of companies.



At the technology corporation in Pittsburgh, they have a plethora of resources to increase their physical activity levels. For instance they have a fitness center available to them, specific exercise classes, and a very dedicated exercise physiologist from Exos which is a human performance company. They are also allowed to work at their own pace. Our health fitness specialist stated:

“There are so many opportunities for the employees to be physically active. I truly believe that they love their job, and this might be a reason why they are unwilling to take the time out of their day to be physically active or exercise”.

Knowing this information, they could utilize the exercise resources if they would like to but it really doesn't even have to be exercise just yet. Our health coach has also stated:

“We just need to get these people up and moving”

Something like a group walk, as mentioned above, could be a fun, a light intensity way to get them going. If we can get these employees to realize that increasing their physical activity or even begin exercising will essentially make them want to work even more than they already do, these employees who are already very productive, could benefit tremendously.

ENJOY WORK? WORK OUT!

WORK PERFORMANCE

We believe that the employees do understand the benefits of being physically active and exercise, but we don't believe they understand how much it can improve their work motivation, so that is definitely a goal of "Flow into Better Health". Because the employees love to work, we have thought of a few other possible ways that they can get up and moving while still being able to work! Not only will the employees be motivated to work, but their actual work performance will be improved as well. This can also be a valuable strategy that we can use to get these physically inactive employees on their feet. Other than a group walk, these are some other ideas we have for "Flow into Better Health" to get the employees physically active:

- Having employees count how many flights of steps they go up every day
- Office arrows pointing to the stairs instead of the elevator (they do have this option at work)
- Have those arrows point to their exercise physiologist/health fitness specialist
- Email/text alerts to remind them to take a quick walk



Although these are good options, they can also be easily ignored. Especially by the employees who would rather spend their time working on their computer. These are some other options, that may be more ideal, or at least give employees plenty of ways to stay active throughout their day.

ENJOY WORK? WORK OUT!

WORK PERFORMANCE

- Stationary bike
- workstation Standing desks
- Core stability seats
- Mini band station

HOW TO BE AWESOME AT YOUR JOB

These are not the only options we plan to use in “Flow into Better Health” however from an individual standpoint we believe these are some of the best options. This type of physical activity improvement with the use of something like a workstation treadmill would be ideal at a large technology company. Increasing their physical activity without having to take them away from their cognitive tasks might be the most successful and enjoyable plan for a previously inactive employees to use. The core stability seats would challenge the workers to use an active sitting position while the standing desks provide a break from sitting. The mini band station is an area with small resistance bands that the workers can use to activate certain muscle groups (for example, shoulders and hips) which can become weak from consistently sitting for long periods of time. There have been successful types of of health promotion programs specifically designed to increase employee physical activity so therefore it can definitely work at a place with dedicated workers. These programs were specifically designed for individuals who are overweight or inactive and and work performance, evaluated by both employee self-assessment and the employee’s director/manager. The inactive employees individuals are the more likely to have perceived barriers, or are in need of a cue to action, for increased motivation, opposed to their physically active peers.

ENJOY WORK? WORK OUT!

WORK PERFORMANCE



Below are some examples of perceived barriers that the employees may face:

- Not enough time
- Lack of interest
- Being physical activity will take away from time at work
- Embarrassed, lack of self-confidence
- Work performance will decrease
- Too old/overweight to get started
- Several employees are parents

While they perceive that work performance will decrease it actually will improve. Similar to our long-term plan, specific workplace physical activity promotion plans have been conducted over the course of a year and were shown to improve employee work performance. Again the key with this program is to increase the physical activity levels for inactive employees. Being able to do this throughout their workday, similar to the promotion plans mentioned above would be the most successful. This way they can “kill two birds with one stone” by effectively performing their work, and increasing their physical activity on a daily basis.

ENJOY WORK? WORK OUT!

WORK PERFORMANCE

Other ways that our physical activity plan can improve work performance is the potential for increased collaboration among employees. For instance, if a group of employees were to go on the group walk, they could bounce ideas off of one another relating to work, or ask each other for help on specific work related tasks. This allows for an improved social health and definitely provides a large possibility of other employees to also join the group walk. Put yourself in the shoes of one of these inactive employees:

If you see your co-workers doing something that seems to be improving their work and attitude at work, you would most likely want to do the same thing. Especially if there are so many of your co-workers doing it. Whichever way an individual prefers to increase their physical activity and when there is a large collaboration and effort from several others, the chances of participation and continuation are much greater.

Below are some other great examples of the benefits of giving employees opportunity to be physically active:



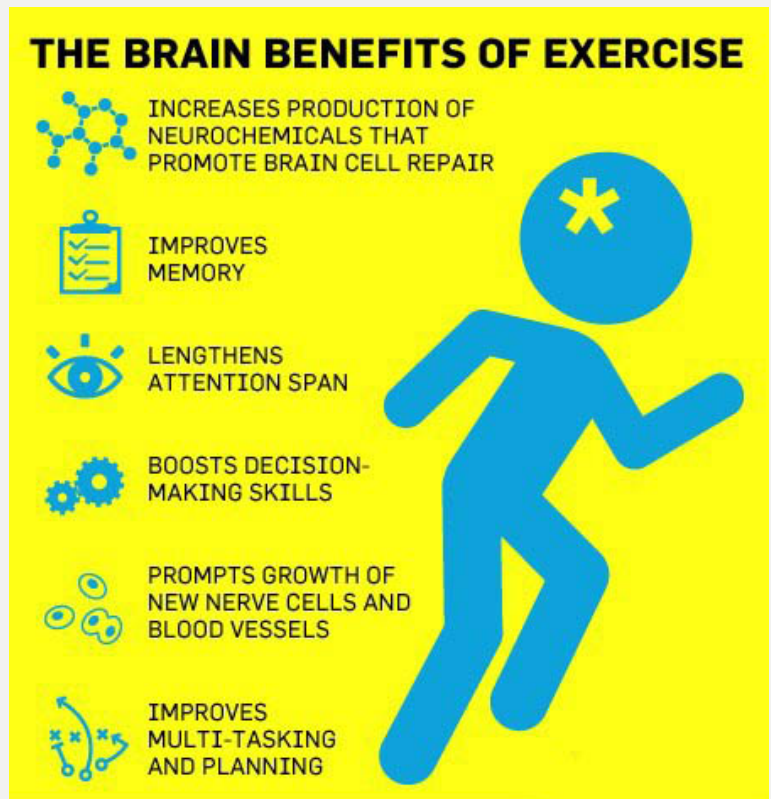
ENJOY WORK? WORK OUT!

COGNITIVE PERFORMANCE

One of the biggest challenges for workplace employees is the ability to maintain their cognitive requirements necessary to complete their work tasks. Constantly being attached to technology through text messaging and social media can lead to employees constantly bouncing back and forth between work and personal life. This is definitely a high possibility for employees working at a company based on and driven by technological advances.

Although our health coach believes that the do love their job, but there is still a possibility of distraction with the amount of technology that is used at this corporation. There has been research conducted on the effects of exercise on individuals with adult ADHD and the results were very relevant to our physical activity promotion plan.

- First, the employees are a younger population so there is definite possibility that several of them possess ADHD related symptoms, and maybe even some have ADHD (diagnosed/undiagnosed).
- In addition, as mentioned before, the population that we are working with are currently physically inactive and definitely love to work/love their job. They most likely feel that taking time out of their day to increase physical activity would mean they would be missing time to complete their work.



ENJOY WORK? WORK OUT!

COGNITIVE PERFORMANCE

If employees take a minimum of 10-20 minutes out of their day to exercise, or increase their overall physical activity, it could result in an even greater enthusiasm and ability to complete their cognitive tasks. This would improve these outcomes even more than they are already experiencing while being physically inactive.

Employees who exercise



Regular physical activity can improve an employee's work performance by up to **52%**.

Source: U.S. Department of Health and Human Services

Even employees who do not suffer from cognitive impairments like lack of focus can benefit from increased physical activity. Brain health is improved overall, mood is improved, leading to a happier and healthier work environment and resulting in more productivity.

ENJOY WORK? WORK OUT!

COGNITIVE PERFORMANCE

Time



"If you write down your Top 10 goals 1,000 times a day, you can accomplish anything...if you have any time left over."

- ❑ No time to Exercise outside Work
- ❑ Exercising at Work gives the Employees more time with their Families
- ❑ Releases stress
- ❑ They will focus only in their work during their shift
- ❑ The company cares



There is the possibility that some individuals might even fear that increasing their physical activity or implementing exercise into their daily routine may negatively affect their cognitive abilities while at work. Research has shown that physical activity does not negatively affect cognitive functioning while at work. There are particular types of workstation exercise equipment which have been reported to be less comfortable than a regular desk. This is why we want to give the employees at as many options as we can. Some of them may prefer a workplace treadmill so they can continue to work while being physically active, or in that case exercising, while others may prefer to just go for that group walk before or after lunch. We have to consider that everyone is different so the more options, the better!

ENJOY WORK? WORK OUT!

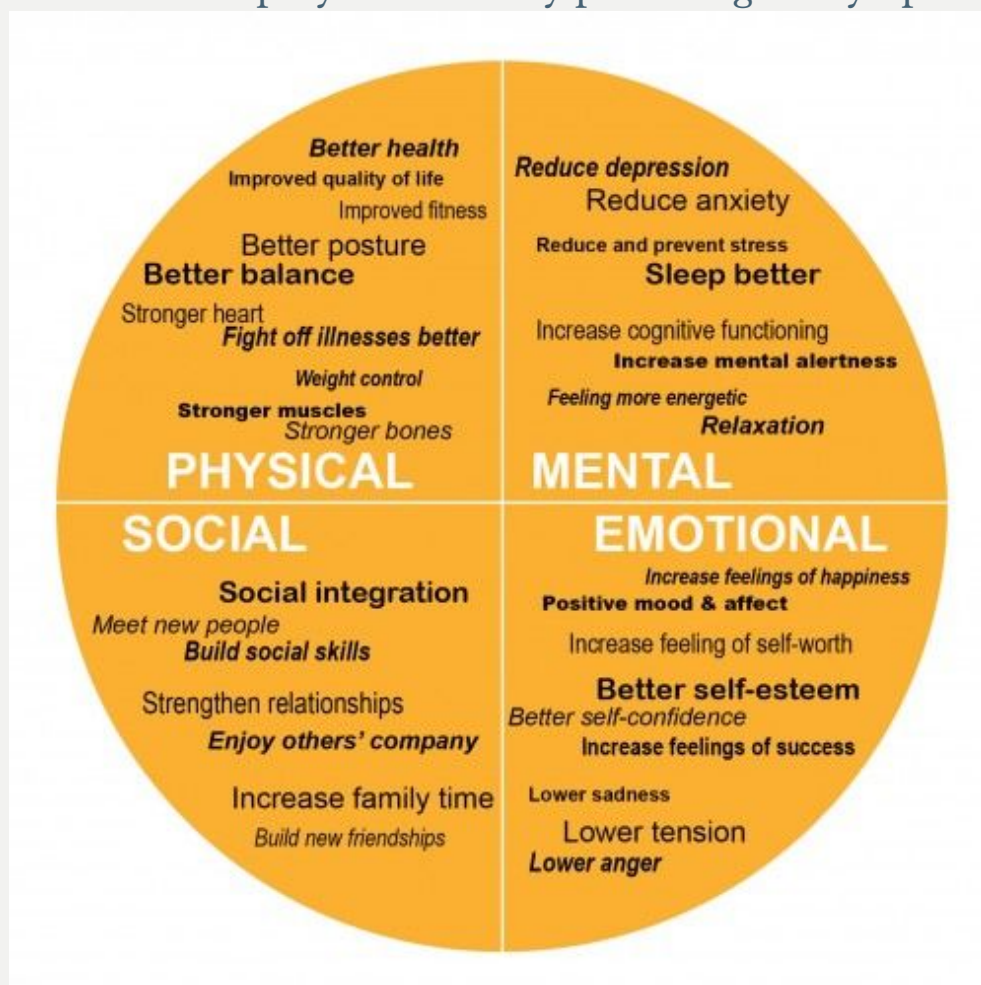
COGNITIVE PERFORMANCE

These employees are very intelligent individuals. Getting them familiar with the mental flow state and helping them realize they can stay in that flow state more frequently, with less fatigue, from just increasing their physical activity or a little bit of exercise will hopefully get them to act. “Flow into Better Health” can provide all of this to happen for the employees.

Our health coach is committed to improving physical activity:

“My goal is to create an active environment for the employees; getting them to move around more throughout the day is my number one goal”.

Therefore he will take the ideas from “Flow into Better Health” and find a way to make all of the employees active by providing many options that suit

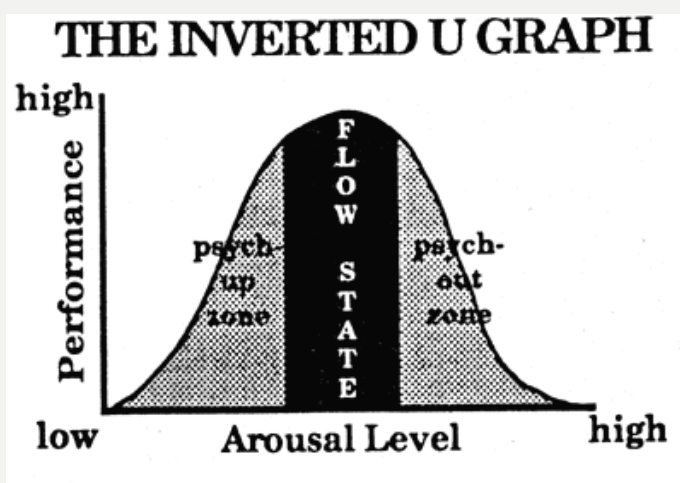


ENJOY WORK? WORK OUT!

MOOD

In addition to reducing a lack of concentration and assisting with the maintenance of work performance, increasing physical activity levels throughout the workday has also shown to be an effective means of preventing burnout!

Being burnt out at work means the individual is exhausted and lacks the drive to continue. Burnout is a multifactorial syndrome; however, repeated and prolonged stress from work has been shown to be one of most the triggering aspects.



Burnout is increasing in prevalence and contributes substantially to the healthcare burden and costs of national economies and private health insurance companies. Chronic stress from burnout that is induced in the workplace is not appropriate and is increasingly known to be detrimental for health.

Although employees are generally perceived to be very passionate and enjoy their work, there is still a significant possibility that employee stress levels and mood do not becoming a bearing outcome on health. Active exercise breaks to interrupt the working day are generally attributed to the following:

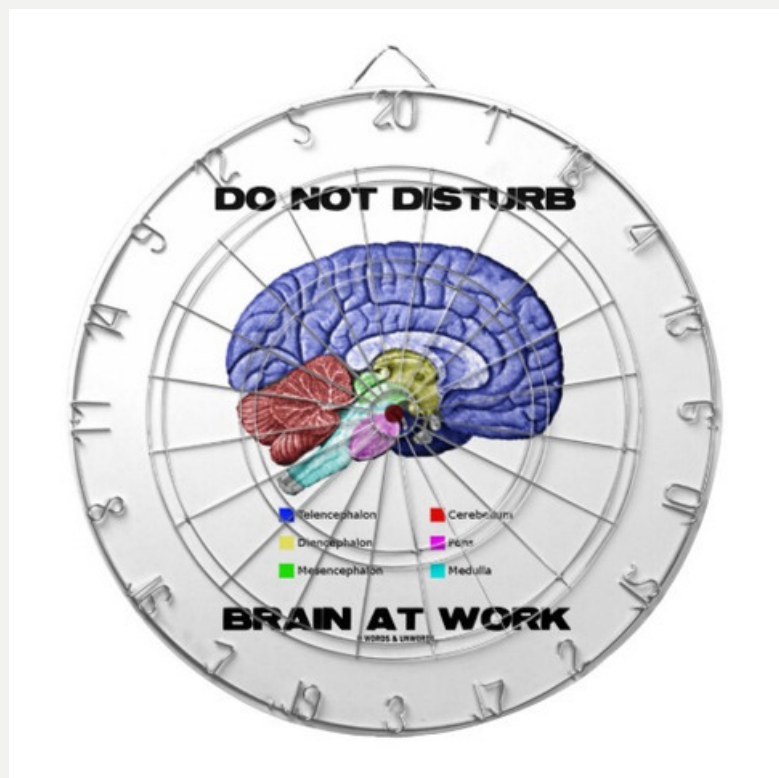
- Promoting health
- Improve work safety
- Reduce depressive symptoms
- Improved employee mood
- Decreased poor cognitive symptoms

ENJOY WORK? WORK OUT!

MOOD

A successful physical activity plan that has worked in other studies conducted in workplace settings is the inclusion of sporting activities.

Although the employees already have a tremendous amount of resources available to increase their daily physical activity levels, such as a fitness center utilize throughout the day, there are still several employees that are inactive and don't take time to exercise.



Those employees who are currently inactive might enjoy a lifetime physical activity such as:

- Playing darts
- Ping pong
- Paper basketball game

These options may be better for a more competitive type of employee, such as one those who are former athletes.

ENJOY WORK? WORK OUT!

MOOD

These are some other activities that we would like to offer to increase physical activity levels from “Flow into Better Health”. All of these could be done in an office and would get those inactive employees up and moving. This could definitely bring an element of friendly competition to the employees and which would be fun and could definitely improve employee mood and reduce stress. These particular activities can definitely bring an element of motivation to get their work done to play! They could create weekly tournaments and competitions to make it a little bit more appealing and interesting than getting up and taking a walk. Although it has been reiterated several times how much employees enjoy their job, they are still human and need a break from their job at times. All of these various types of physical activity that we plan to offer at “Flow into Better Health” will definitely provide that mental break from work. If you think about it from the employee's perspective:



It would be very enjoyable have a friendly competition such as a ping pong game, to look forward to every day. It would be kind of like having physical education class again! Then again, not everyone would want to do that, so maybe putting in your headphones and going for a walk is your cup of tea.

Therefore, however it is implemented, increasing physical activity throughout the day can potentially provide the following attributes:

- Improve motivation to work
- Enhance cognitive functioning
- Prevent burnout
- Improve employee mood

ENJOY WORK? WORK OUT!

MOOD



All together these are improving employee work performance. Regardless of the most enjoyable choice, there are several benefits that can come from increasing physical activity throughout the workday. Several employees are very motivated to do their actual work, however we believe that if “Flow into Better Health” will get them to implement more physical activity into their lifestyle, they will be able to significantly improve their work performance and mood, reduce their stress levels, and overall lifestyle. We believe that once the employees at buy into “Flow into Better Health” the chances of them continuing to be physically active throughout the rest of their life is very likely.



FREQUENTLY ASKED QUESTIONS

Q: Can physical activity really motivate people to do more work?

A: Absolutely! Increasing employees motivation to complete work related tasks while also doing those those tasks effectively is one of the many benefits a physically active lifestyle can provide. This is especially true for employees who were previously physically inactive. This is a relevant question because several employees may be definitely interested in increasing their physical activity level as they are most likely aware of the benefits, however they may be unaware of the benefits it can provide in relation to their work. Motivation to work or “get in the flow” may be one of the most significant benefits that acute exercise & workplace physical activity can provide. This should be the main cue to action for getting the inactive employees active.

Q: Does physical activity really improve cognitive tasks ?

A: Results from studies have shown that short bouts of exercise have a positive effect on neuro-cognitive performance. Physical activity may not necessarily provide the ability to accomplish cognitive tasks effectively, however it may motivate individuals to complete the cognitive task at a faster rate while also delay the associated confusion and fatigue that can occur with accomplishing the particular task. In addition, giving employees opportunity to perform physical activities in which they prefer is a significant aspect. Employees should have the choice in which type of physical activity they prefer. For instance, amongst the physically inactive employees, one may prefer to play ping pong rather than walking on a workplace treadmill.

Q: Does physical activity/exercise eliminate or delay mental fatigue?

A: Increasing daily physical activity can definitely delay the mental fatigue associated with cognitive tasks necessary to perform work however it does not necessarily eliminate it. The volume and intensity of the physical/activity plays a major contributor of the duration that fatigue can be delayed. It has been shown in studies that a 20 minute bout of moderate intensity aerobic exercise can delay the normal symptoms of fatigue associated with the work day.

FREQUENTLY ASKED QUESTIONS

Q: Do you believe the claims from increasing workplace physical activity are significant?

A: A majority of the studies that we have used in our research were completed using surveys. This definitely creates several limitations for all of the claims used our research and all research completed in within mental health relating to work conditions. Recall bias is definitely a significant consideration with our research in relation to the benefits of physical activity for work performance outcomes. That being said, we believe that a huge barrier with increasing employee physical activity is just the overall opportunity to do so. Several companies/businesses do not provide the opportunity for employees to be physically active.

Q: What will you do with those who absolutely refuse physical activity?

A: With these individuals we hope to implement a more of a workstation to increase their physical activity. They are most likely not interest in exercise, sports, or any type of physical activity. That being said they probably are well aware of the beneficial health outcomes pf increase physical activity so therefore implementing a workstation treadmill or bicycle would most likely be the most beneficial for these individuals. They might not necessarily want to to get up and exercise or try to increase their physical activity by doing other things at work, however they may be open to continuing to do their work while moving. In this case, a workstation treadmill or stationary bike may be ideal for them.

Q: Why is flow into better health better than other programs?

Our program is simply focused on getting the physically inactive employees active. Several programs are only focused on exercise which causes a lot of dropout. Our main goal is to just get people moving. Nearly 50% of the employees are inactive and we are simply trying to get them up and moving by whatever means necessary. We plan to provide as many opportunities as we can to the employees who are physically inactive in ways that are most enjoyable for them. They are aware of the personal health benefits that being physically active can provide, but we want to make them aware of the work performance benefits that can be accompanied, along with giving them these opportunities.

Session 2

Ease Your Flow

LOW BACK PAIN

EASE YOUR FLOW

You may have or know someone who has had low back pain. This is because low back pain is an extremely common condition. It is the leading cause of disability worldwide. It is one of the most common reasons of missed work and is the second leading reason people visit the doctor's office. Not only when suffering from low back pain are you missing time at work, but you are also spending money to visit the doctor's office. Low back pain affects around 80% of the population at some point in their lifetime. This means that your chances of having low back pain at some point is extremely high and should warrant some preventative measures.

Low back pain has many causes and can result from specific events or from habits over a long period of time. Everything from your seated position and posture, to how you lift objects, and many other events in between can cause or contribute to back pain.

Common risk factors for low back pain are

- sedentary lifestyle
 - obesity
- pregnancy
- smoking
- older age
- poor posture



If you know of a certain event that caused the discomfort or a position that increases pain, it is important to discuss these with your team of professionals to ensure that you address the issue properly and prevent any further injuries.

LOW BACK PAIN

REFLECTION

Now reflect on how long you or a person you know has suffered from low back pain and what the specific complaints are. Did this condition only bother this person after work or when they started to relax from the day? Did this condition affect them from morning to night? Are there any daily tasks like putting on shoes, that provide discomfort? This condition can be recurring and intermittent and only pose problems during certain situations, or this condition can be persistent and affect you in any or most situations.

As you read about the other common musculoskeletal issues, try to reflect on the high susceptibility and the severity of the condition on a person in your field of work. Reflect on how this person could be affected by the condition and how it may impact more than just their job, but also their daily lives. Determine if your body is sending you any signals that you should consider further investigating and if you should talk to a professional about your risk factors and what you can do to reduce them.



LOW BACK PAIN

THE NEXT STEPS

Working with your physician and specialists, can help to individualize the treatment to your specific case. Similarly, when working with a fitness specialist, they can tailor the exercise plan to target your specific needs more adequately.

Every case of low back pain can be different and that is why it is important to discuss with your team of professionals as to what is best for you before beginning a program.

Once you begin your program, you can expect to have some general discomfort at first. Be sure to let your fitness specialist know what you are experiencing and if there are any certain events or exercises that trigger any additional pain. Beginning the journey may be difficult, but something as simple as making a call to your physician or talking to the Exos Fitness Specialist located at your facility can get you on the path to success. These specialists are trained to handle these conditions, prevent further injury, and ensure that you are comfortable throughout the journey. Taking that first step towards a better life by talking to a professional can make all the difference.



LOW BACK PAIN

PHYSICAL ACTIVITY

Low back pain is an extremely common and costly condition that can be prevented, reduced, or eliminated through physical activity and exercise. To drastically reduce and in some cases, completely remove low back pain you can choose to begin by becoming educated on proper body positioning and mechanics, and implementing a physical activity program.

By participating in a regular exercise program, you can reduce your likelihood of developing low back pain. Improving flexibility and proper body mechanics help to prevent unnecessary forces on your spine and back muscles that will aid in the prevention of this. Programs that involve aerobic exercise, weight lifting with either heavy or light weights, and stretching have all been shown to reduce back pain, and improve motor control and muscular endurance and strength. In short, there are many benefits of physical activity and exercise that pertain to the prevention and reduction of low back pain. Physical activity and exercise also bring many other benefits not directly related to low back pain that improve your ability to work and live your life the way you want to live it, at its fullest and pain free. Improvements take time and effort, but the reward is worth much more than the investment.

This process is cost effective and it produces exceptional results. Effects of physical activity and exercise that can contribute to your improvements in

- pain reduction and prevention
- muscular strength
 - imbalance
 - posture



ARTHRITIS

EASE YOUR FLOW

Arthritis is another costly disorder that affects millions of Americans. Arthritis is a condition that affects the cartilage and the bone of joint such as the knee, and cause pain or stiffness. The condition can progress to a point where the joint is unable properly function. This pain and stiffness interferes with daily activities. Arthritis can affect any joint but is most commonly associated with the knee, and the joints of the hands, wrists, and fingers. Arthritis is the most common cause of walking disability.



There is currently no cure to arthritis. There is hope for those suffering from this condition however, as arthritis disability, pain, and stiffness can all be reduced using physical activity and exercise. Various types of exercises such as aerobic exercise, weight lifting, and flexibility exercises can be beneficial to the prevention and treatment of arthritis. Program duration, intensity, and frequency are other factors that should be considered. Programs lasting longer than 12 weeks may have a more significant effect than those that are shorter in duration. Multifaceted programs are more likely to yield better results. Different forms of arthritis exist, and it is important to consult with a physician or a professional on your specific needs. The decision to participate in a physical activity and exercise program will better protect you from the possible detrimental effects of arthritis.

ARTHRITIS

PHYSICAL ACTIVITY

Understanding the role of physical activity and exercise in the treatment of arthritis is very important to preventing injuries and reducing pain, specifically in osteoarthritic pain. Exercise has been shown to improve pain levels and function of joints affected by arthritis. The maintenance of exercise in those with arthritis is what was found to be especially important.

In a review of several studies focused on the role of physical activity and exercise with arthritis, the participants who were consistent and continued to maintain their fitness routines were the most successful in preventing injuries, reducing pain, and improving function. Those who discontinued exercising, began to see the benefits diminish. By improving the strength of the joint and its surrounding muscles, the amount of force produced inside the joint is reduced. This leads to reduced pain and improved function. The most successful programs included both an aerobic and muscle strengthening exercises. Multifaceted programs result in more significant benefits.

Arthritis shares risk factors of other serious diseases. Common risk factors include;

- Obesity
- Previous injuries
- Family history
 - Age
- Sex: Female



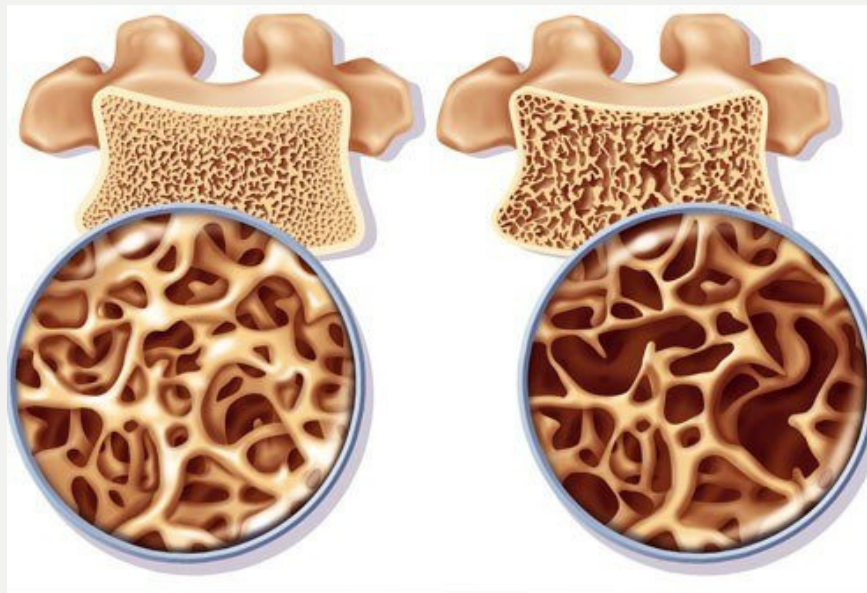
Women are also more likely to develop arthritis than men. Although some risk factors are genetic, many are influenced by your lifestyle. By reducing the risk factors of arthritis, you can also begin to reduce your risk for other serious diseases as well. Your focus on prevention should not end at arthritis, but should also include other conditions like the ones described in this program. The improvements in fitness will also contribute to an improved range of daily activities and a better quality of life!

OSTEOPOROSIS

EASE YOUR FLOW

Osteoporosis is a condition that causes bones to become weak and brittle. This can lead to pain, fractures, falls, and surgeries. These resulting conditions then lead to missed work, disability, excessive expenses, and more pain. The diagnosis of osteoporosis can lead to uncertainty and fear of your future. Understanding your risk of developing osteoporosis is important in the role of prevention. Women are especially susceptible to osteoporosis, specifically post-menopausal.

. This doesn't mean that osteoporosis does not affect men. Regular meetings with your physician in which you discuss your relative risk of osteoporosis and other ailments is important to stay ahead of any developing conditions. Smoking, alcohol use, calcium deficiencies, and leading a sedentary lifestyle all are associated with an increased risk of developing osteoporosis.



For individuals who have already experienced an osteoporosis-related fracture, consulting with your physician or other professional is highly recommended before beginning an exercise program. Prevention should begin early, but hope is not lost once one is diagnosed. There are many pathways to success!

OSTEOPOROSIS

PHYSICAL ACTIVITY

In assistance with nutrition and pharmaceuticals, physical activity and exercise can help to treat osteoporosis by;

- reducing pain
- improving function
- preventing injury
- reduce your likelihood of other conditions



Working to reduce your likelihood of developing the condition should have part in all physical activity and exercise programs. Improving your ability to perform daily activities safely is another benefit of regular exercise.

As muscular strength increases, the bones associated with these muscles must also improve to meet the demands of the muscles. This a process that requires regular training and is best done with supervision. Most exercise plans that were monitored by professionals were found in review study to have beneficial effects in pain, function, and quality of life. Regular exercise can slow the rate of bone loss. As we age, the amount of bone tissue in our bodies decreases. Through weight-bearing activities in those with osteoporosis, bone loss can be slowed, and bone density can be maintained.

The evidence on the ability to increase bone density once osteoporosis has been diagnosed is conflicting but there is substantial evidence on its ability to reduce bone loss. Regular exercise also promotes safe movement. Improvements in posture, alignment, and muscular imbalances lead to better body mechanics and prevent the spine from receiving any unnecessary loads. Improvements in balance also help to prevent falls. Education on body mechanics can become especially important. Learning how to transition between exercises without excessive twisting, focusing on alignment, and developing safety techniques will become essential tools for those who have already have experienced a fracture.

CARPAL TUNNEL

EASE YOUR FLOW

Carpal tunnel syndrome affects the hand, wrist, and arm of a person by causing tingling sensations, numbness, and pain. This condition is characterized by the compression of nerves in the wrist. An occupational setting increases your likelihood of developing carpal tunnel syndrome and the risk of requiring surgical repair. The nature of your job puts you at a higher level of susceptibility than others because of factors such as poor hand positioning and the repetitive nature of typing. Carpal tunnel syndrome is among the top four causes of worker disability. Nearly three million Americans suffer from this condition. The incidence rate of carpal tunnel syndrome is increasing as well.

Risk factors associated with carpal tunnel are;

- occupational repetition
 - general health
 - job satisfaction
- physical activity levels
 - obesity



Like other areas of the body, straining the wrist puts you at risk for more injury. Repeated wrist strains are associated with carpal tunnel syndrome. Events may cause these risks both at work and outside of work. Once diagnosed with carpal tunnel syndrome, preventing the progression of the condition, and maintaining your quality of life can become more difficult.



CARPAL TUNNEL

PHYSICAL ACTIVITY

Surgery can occur as an attempt to repair this condition that results in excessive costs and missed work. Surgery is likely followed by physical therapy or another rehabilitation program. Carpal tunnel surgery is the most common surgery of the hand and surgical costs are estimated to be between 25,000 and 100,000 dollars. The option to work towards the prevention of this syndrome, and fortifying your health is a decision you can make for not only yourself but those around you as well. It is important to get ahead and stay ahead concerning carpal tunnel syndrome. Work with your team of professionals to prevent and treat this condition.



With these musculoskeletal issues and others, your decision to act fast to prevent these conditions can help save you time, effort, pain, and money. Preventing these conditions should be your first step. If you have already been diagnosed with a musculoskeletal issue, it may be helpful to speak with your team of professionals about an exercise program designed to reduce pain, improve function, and prevent further progression.

Physical activity and exercise may be an important part of your rehabilitation. A well-developed plan, including all aspects of health-related fitness, along with professional supervision and a strong effort can lead you to a healthy lifestyle and high work productivity.

FREQUENTLY ASKED QUESTIONS

Low Back Pain

Q: Could exercise worsen my condition?

A: Exercise is generally associated with some soreness, especially during the beginning of a new program. This should not discourage you however, as the professionals you are working with are there to ensure that you do not take on more than you can handle. An exercise program is ever-evolving and will adjust to your goals and how your body handles and adapts to the program. It is important to establish goals at the beginning of the program and to have those goals evolve as you adapt to the program. The first goal of your program is to ensure that you are not injured further.

Arthritis

Q: Is running bad for arthritic knee pain?

A: Aerobic exercise can be beneficial to the reduction of knee pain. Exercise may cause discomfort or soreness, especially initially. Therefore, it is important to work with a fitness specialist or other professional to determine a modality of exercise that is most beneficial and has the lowest risk of causing any additional discomfort. Professionals are a means to ensure your safety and to help in any way they can. Try to utilize these means to your benefit as much as possible.

Osteoporosis

Q: Is it safe to lift weights?

A: Lifting weights is one of the ways you can improve bone and muscular strength. Bone strength increases will accompany improvements in muscular strength. Your program should start you out with light resistance training that focuses on proper alignment and technique and gradually increase the weight associated with the lifts. Progressive overload, meaning that increasing the weight of an exercise, is important to the benefits of strength training. With that said, following your physician's recommendations is imperative.

FREQUENTLY ASKED QUESTIONS

Carpal Tunnel

Q: Are my ergonomic devices enough to prevent this disorder?

A: No guarantee can be given that using these devices will eliminate your risk of developing this condition entirely. In addition to these devices, physical activity and exercise can further reduce your likelihood of developing this condition. Therefore, identifying your specific risk factors and addressing them is important to the focus of prevention.

Other Musculoskeletal Disorders

Q: I suffer from another musculoskeletal disorder that was not listed. Is exercise beneficial for it?

A: Every disorder is different and every person with that disorder may experience it in a different manner. Therefore, it is important to talk to a physician or specialist and find a plan that fits your needs and goals. These plans will often include a physical activity and exercise component and if not, it is important to ask these professionals if the plan should include an activity component. Many but not all disorders can be managed or treated using physical activity and exercise. Plans will typically include focuses for endurance, strength, and flexibility.

Q: What else should I know about exercise and musculoskeletal conditions?

A: Exercise has many benefits and current research is always uncovering more. The benefits of various exercises and the most effective treatments and modalities are constantly being evaluated and updated. If a condition currently affects you, meet with a physician or specialist and work together to determine the plan best suited for you. If you are not currently afflicted, prevention starts early and addressing your specific risk factors will be beneficial to your quality of life.

Session 3
Live Happier,
Healthier, Longer

LIVE HAPPIER, HEALTHIER, LONGER

Sleep



Do you have trouble achieving quality sleep? Feel groggy at work during the day? If you struggle to fall asleep or stay asleep, you might be suffering from insomnia. Insomnia is a sleep disorder that prevents people from falling asleep or staying asleep during the night. This sleep deprivation leads to fatigue during the daytime, cognitive impairment, irritable mood, poor memory, lack of energy, and poor quality of life.

Unfortunately for many people, the problem doesn't end there.

Less energy during the day reduces the likelihood of engaging in physical activity and correspondingly increases sedentary behavior. Long-term inactivity leads to the development of health-related diseases like obesity, diabetes, heart disease, hypertension, and more.

Research has shown that exercise is effective at fighting symptoms of insomnia and helping people achieve better sleep. Adults with insomnia reported falling asleep more quickly, sleeping longer, and having better quality of sleep after engaging in an exercise intervention study compared to those who did not exercise.



LIVE HAPPIER, HEALTHIER, LONGER

Sleep

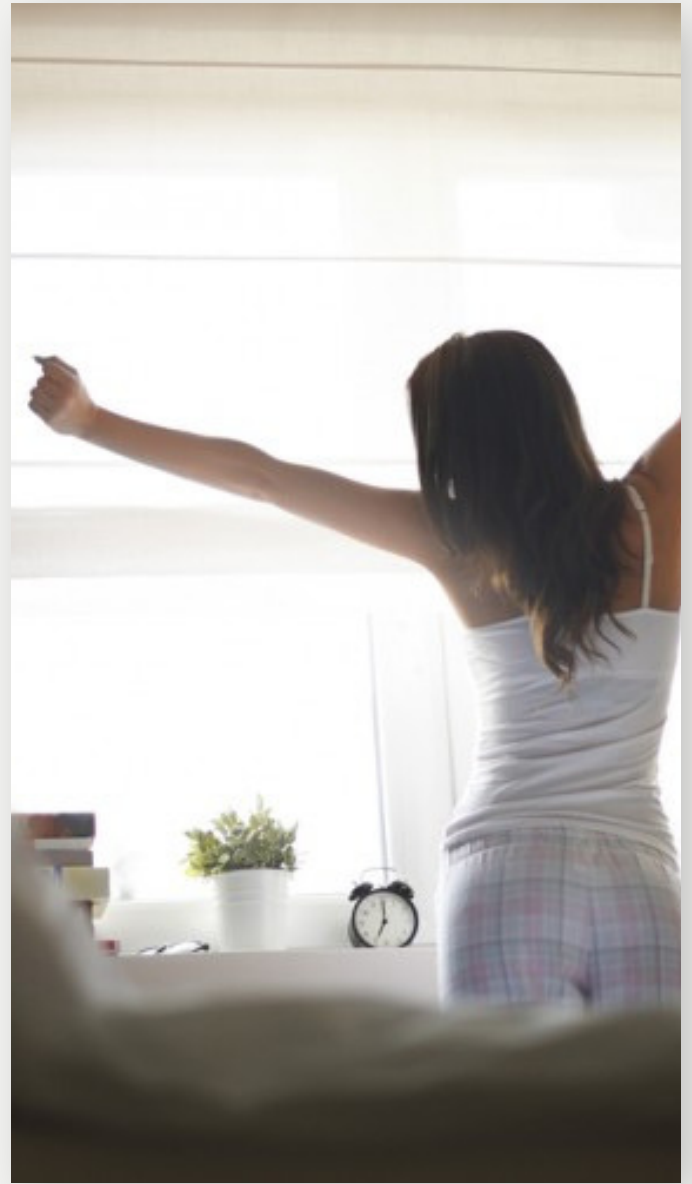
Being more physically active during the day improves sleep quality, and achieving more quality sleep increases the likelihood that a person will be active during the day.

Try this:

Take a 30-minute group exercise class after work during the weekdays (or reach a weekly accumulation of 150 minutes). Better quality sleep results in better mood, more energy, and productivity at work.

What are the options?

Although there are other options to treat insomnia such as sleeping pills and cognitive behavioral therapy, physical activity is a lower cost alternative to drug and therapy treatment. Physical activity has many other positive health benefits, and is safer than drug treatment, which is only meant to be used short-term, and can result in undesirable side effects. Another benefit is that it is more accessible, and can be done anywhere (work, school, gym, home) and anytime that fits into an individual's schedule.



Take the time to adjust your daily habits to get the most out of your sleep! Who doesn't want to be happier, healthier, and more productive? Better sleep will allow you to reach your full potential during the day and also provides long-term health benefits.

LIVE HAPPIER, HEALTHIER, LONGER

Sleep

- Take steps towards improving your sleep habits by increasing physical activity:
- Strive to get 150 minutes of physical activity per week
- Start by taking a 30-minute walk 5 days per week, or try a group exercise class
- Take a 10 minute walk after meals
- Body-weight movements can be done at home!
- Squats, lunges, push-ups, core exercises, jumps
- Exercise with no equipment – yoga, pilates, bodyweight exercises
- Learn more by taking a group exercise class offered at the corporate wellness facility!



- Improve your sleep hygiene!
- Practice healthy sleeping habits
- Limit late caffeine intake
- Reduce the amount of light exposure before bed
- Go to sleep at the same time every night
- Allow yourself to get 7-8 hours of sleep
- Avoid staying up too late
- Add more movement to your day!



LIVE HAPPIER, HEALTHIER, LONGER

Healthy weight

Steps for reaching a healthy weight:

Most of us know that we should be eating healthy and exercising on a regular basis, but sometimes we fall short of achieving that.

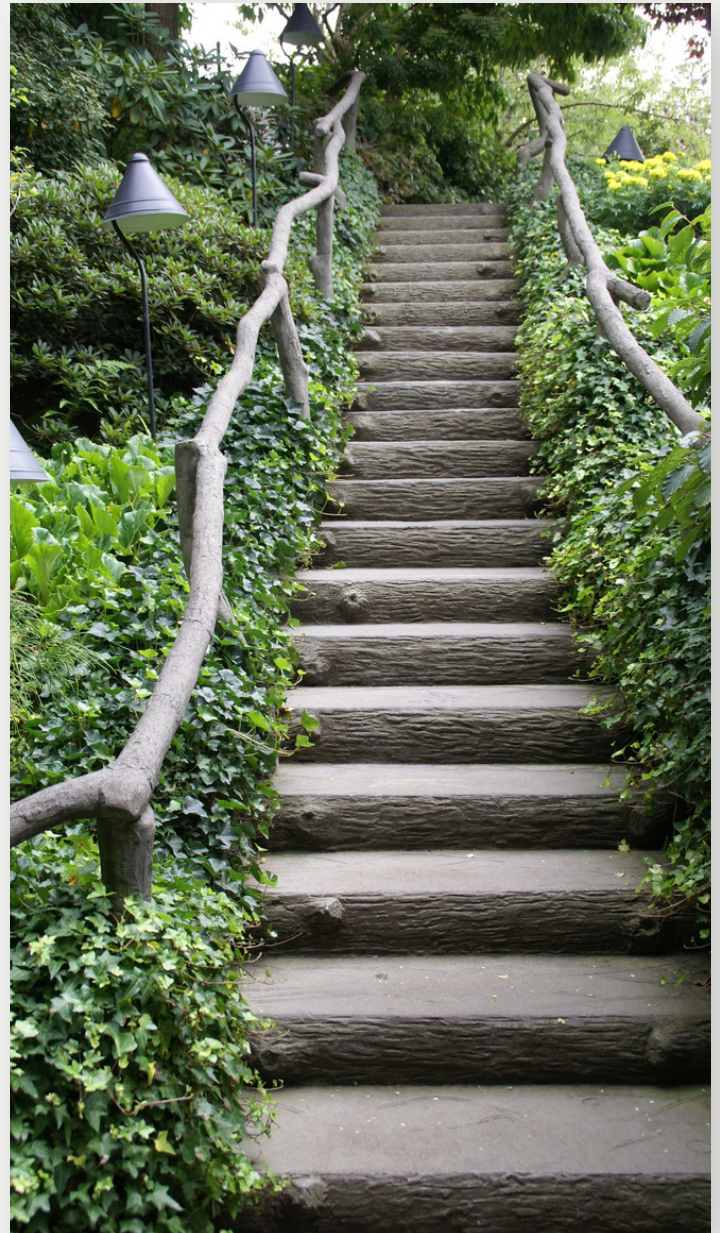
Sometimes it's more convenient to pick fast food over healthier options, and more fun to watch Netflix instead of heading to the gym. Do you ever feel like you need to make a change but don't know where to start?

Making small changes matter!

Choosing a fruit or vegetable instead of a fried food, or taking a 10-minute break to stretch, walk around, and increase blood flow can lead to amazing health changes.

Start small with a few healthy habits, and work on being consistent.

It's much more achievable to be realistic with your goals and focus on things you can control everyday.



LIVE HAPPIER, HEALTHIER, LONGER

Energy balance

Energy balance is the relationship between calories in and out (the difference between how many calories consumed and how many are expended).

A **positive** energy balance means that more calories are being consumed than expended. This results in weight **gain**.

A **negative** energy balance means that more calories are being used than taken in. This results in weight **loss**.

An **equal** energy balance means that there is an equal amount of calories being taken in and out. This results in weight **maintenance**.

Some foods are highly calorie dense, meaning that they have a larger amount of calories per serving. Swapping a higher calorie dense food (ex: french fries) for a lower calorie dense food (ex: grapes) is beneficial for weight loss. You can eat a larger amount of grapes for fewer calories than the serving of french fries. Eating more food for less calories helps keep you fuller for a longer period of time and helps reduce your overall daily caloric intake.



What does this mean for weight loss? Taking in less calories than your body needs with lower calorie dense foods and increasing exercise results in a negative energy balance. Over time, a consistent **calorie deficit** results in weight loss. For an overweight individual, weight loss helps reduce body fat while exercise maintains lean muscle mass; both are important for achieving and sustaining a healthy weight.

LIVE HAPPIER, HEALTHIER, LONGER

Healthy eating tips

Pack a meal for work the night before! You'll be less tempted to eat out.

Pick a lean protein (turkey, beef, chicken, salmon, tofu)

Pair it with a vegetable or fruit (strawberries, apples, broccoli, peppers)

Try adding spices (garlic, cayenne, fresh herbs) for extra flavor!

Add whole grains: (brown rice, pasta, bread – look for the whole grains!)

Type of fat and amount matters: Select an unsaturated over a saturated fat (ex: olive oil instead of butter!) Be careful about your serving sizes - while fats are an important part of every diet, they are high in calories so be sure to monitor how much you are actually consuming.

Choose whole foods over processed foods! Swap a piece of fruit in place of highly refined foods – while delicious, these foods are higher in calories and take up less space in the stomach, leading you to feel less full and more likely to keep snacking and overeat.

Example: 1 cup of grapes has about 62 calories compared to 152 calories for 1 ounce of potato chips!

An average calorie intake is around 2,000 - eating an entire 8 oz bag of chips is about 1,200 calories - over half of the recommended intake for the day! This will increase the chance of you eating more throughout the day and result in a caloric surplus, which leads to weight gain.



Here's an example of how to plan a meal by including an abundance of nutrients and energy.

Total calorie intake varies by factors such as gender, age, activity level, and body size.

Visit myplate.gov for more information about food recommendations and guidelines.

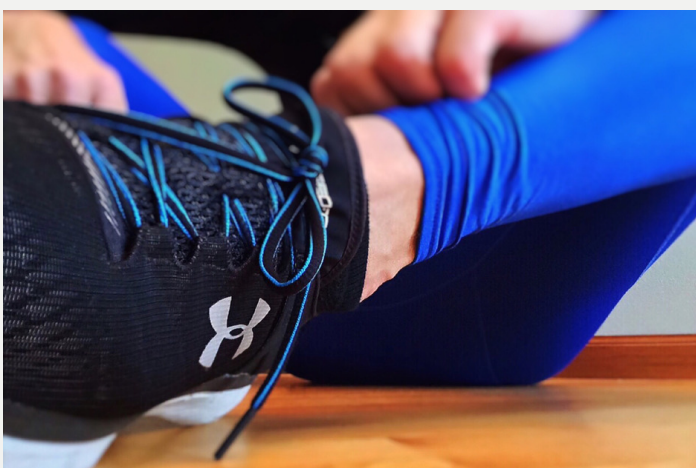
LIVE HAPPIER, HEALTHIER, LONGER

Healthy eating tips

Consuming a surplus of calories without expending an equal amount of energy results in weight gain. Accumulation of body fat (especially around the midsection) can result in adverse health outcomes such as cardiovascular disease, high blood pressure, diabetes, and other diseases that increase the risk of premature death.

The good news is that these negative health outcomes are 100% preventable!

By making an effort to incorporate daily activity and make smart food choices, you can keep the body in working order. Being free of chronic diseases means living a healthier, longer life.



Start small and maintain:

You are not required to be an expert on making healthy decisions in just one day. Healthy lifestyle behavior comes with practice, and this means taking the time to find strategies that work for you in the long run. Think about **including** whole foods into your diet instead of excluding certain foods. A restrictive diet isn't necessarily better than a more flexible one if you end up bingeing and not being able to maintain it.

LIVE HAPPIER, HEALTHIER, LONGER

Making positive health choices

- Prevent disease by implementing healthy lifestyle behaviors:
- Consume the recommended nutrition guidelines (myplate.gov)
- Prioritize whole foods and limit processed foods
- Meet the physical activity recommendations for aerobic and muscle strengthening exercise
- 150 minutes/week moderate intensity, 75 minutes/week vigorous intensity
- Take activity breaks: 10 minute walks after meals, 10 minute body weight muscle strengthening activities at home, stretches at work – just move!
- Accumulate these activity breaks to reach 30 minutes of exercise/day
- Limit excessive alcohol intake: 1-2 drinks/day
- Be mindful of how long and how much you are drinking
- Achieve adequate sleep: 7-8 hours per night
- Eliminate tobacco use: prevent cancer, save money, reduce pollution and secondhand smoke

Small substitutes can add up quickly!

Replacing sugary beverages with lower calorie options can save you calories you may not be aware you're consuming.

Over time, consistent calorie reduction results in weight loss!

Small steps that you will be able to maintain long-term are more important than drastic changes that aren't sustainable.



LIVE HAPPIER, HEALTHIER, LONGER

Sustainability

Fuel, not food

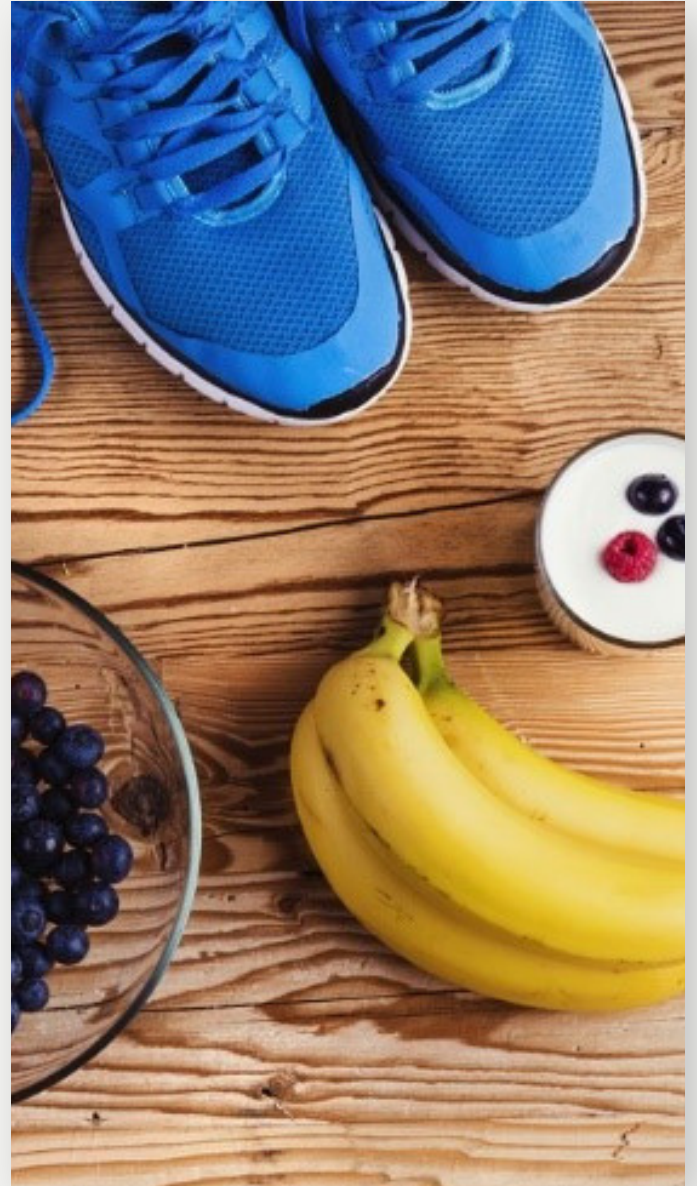
Think of your nutrition as fuel for your body, to give you energy to be active throughout the day! Avoid thinking of food as a diet, which can imply that it's restrictive and temporary.

Instead, eat foods that provide nutrients and incorporate healthy substitutes while enjoying the occasional treat to keep you satisfied.

You gain when you lose!

Being active treats symptoms of diabetes, reduces pressure on joints, strengthens muscles and bones, and improves brain health. The result is improved mood, quality of life, and productivity.

The only thing you have to lose is weight! You will feel better, sleep better, move better, and live a longer, healthier life.



LIVE HAPPIER, HEALTHIER, LONGER

How to get active

EXOS Exercise Classes:

The great thing about exercise is that there are so many ways to do it! Some people prefer aerobic activity (running, swimming, cycling), where others may enjoy anaerobic exercise (strength training, weight lifting).

EXOS has something for everyone, whether you're new to exercise and feel more comfortable learning in a one-on-one setting, or want to join a group exercise class!

Try something new!

EXOS offers personal training and a variety of group exercise classes throughout the day to fit within your schedule and your interests.

There may be an activity that you've never tried before which you may love.

Trying a new activity like boxing or Zumba may be the perfect way to challenge yourself and keep exercise enjoyable!

Stop by our fully equipped fitness facility to check out the complete list of classes offered, or sign up for a free fitness evaluation to start working with a personal trainer today!



LIVE HAPPIER, HEALTHIER, LONGER

Sit less, move more

Are you guilty of this?

Workers who sit at desks all day are prone to have bad posture. Sitting for long periods of time in a compromising position can lead to chronic pain.

Try these tips to stay pain free!

STOP FORWARD HEAD POSTURE

A LITTLE LESS OF THIS...



Staring down at your phone every 10 minutes

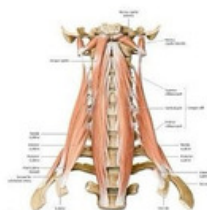
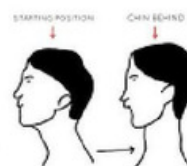
Rounding forward at your desk for hours on end



Bad form and jutting your head forward when you lift and exercise

A LITTLE MORE OF THIS...

Chin tucks to learn a better neck position and mobilize the joints



Strengthen the deep neck flexor muscles

Form better postural habits like bringing your phone up to you and keeping a neutral neck when lifting weights.



@dr.jacob.harden

#Prehab101

LIVE HAPPIER, HEALTHIER, LONGER

Sit less, move more

Anywhere, anytime!

The human body was made for movement, our bones and muscles were made for activity! Sitting for the majority of our days leads to excessively shortened or lengthened muscles which is not ideal for proper movement. Many people who sit at desks all day tend to have tight hips, low back pain, rounded shoulders, and neck pain.

Try these stretches and exercises at your desk to improve your posture:

HAMSTRING DESK STRETCH

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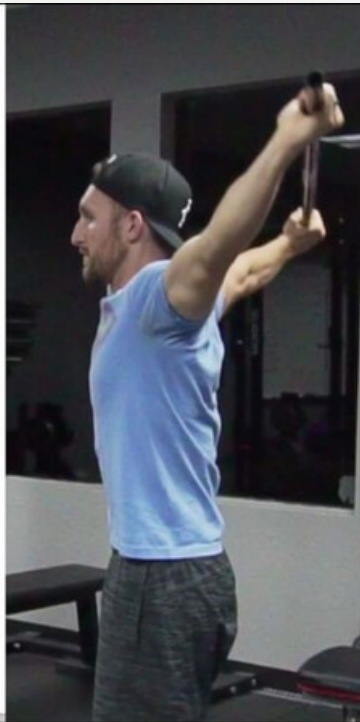
- Sit at the edge of your seat
- Extend one leg out in front of you
- Lean forward until you feel a stretch in the back of your leg
- Hold for 15-30 seconds
- Repeat on the other leg
- Flex the foot for a more intense stretch!

LIVE HAPPIER, HEALTHIER, LONGER

Sit less, move more

Open Up Your Rounded Shoulders

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- Next time you're at the gym, grab a PVC pipe or a resistance band
- Place the hands on the pipe or band with a wide grip and extend overhead
- You should feel a stretch in the chest and shoulders
- Pass through this movement 5-10 times, shortening the grip for more of a stretch
- During the day, reset your posture by pulling your shoulder blades back and down and avoid slouching forward to prevent tightened chest muscles

TIGHT NECK STRETCH

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- Place one hand on top of the head
- Rotate the head to the same side and look down
- Think about pulling the opposite shoulder away from the ear
- You should feel a stretch in the side of the neck
- Hold for 15-30 seconds
- Repeat on the other side

LIVE HAPPIER, HEALTHIER, LONGER

Increasing physical activity

Some activity is better than none! While the guidelines for physical activity are 150 minutes of moderate intensity exercise or 75 minutes of vigorous intensity exercise per week, health benefits can be seen with even small amounts of additional activity.

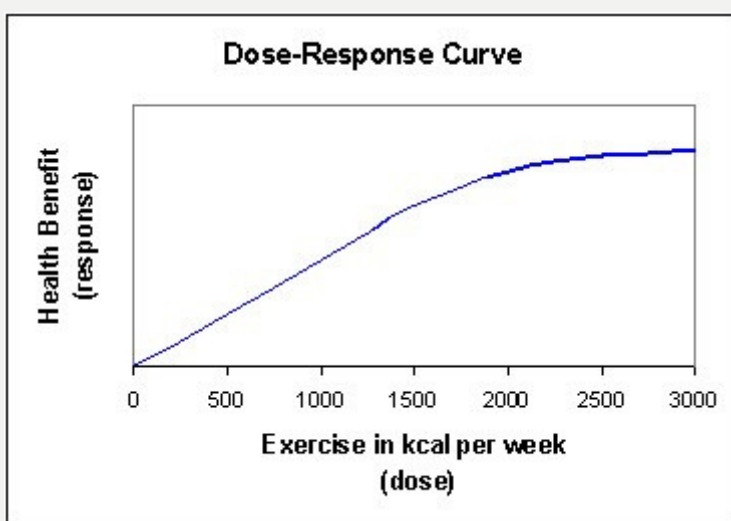
When a sedentary person begins exercising, the heart works harder which improves efficiency, blood circulation increases which provides nutrients to tissues, insulin sensitivity increases, and energy is expended! Energy expenditure is a key factor for weight loss in addition to reducing the amount of calories eaten during the day.

Active individuals are at a lower risk for chronic diseases such as diabetes, dyslipidemia, cardiovascular disease, and hypertension compared to inactive individuals, regardless of weight. A person with a higher BMI who regularly exercises has a decreased chance of developing a health-related disease compared to an individual with a lower BMI who does not regularly exercise.

Regular physical activity can halt the progression or in some cases regress the severity of health problems like atherosclerosis (buildup of plaque in the arteries) which reduces risk of cardiovascular disease, heart attack, and stroke.

There is a dose response relationship between physical activity and positive health outcomes. This means that additional activity produces greater health benefits and risk reductions.

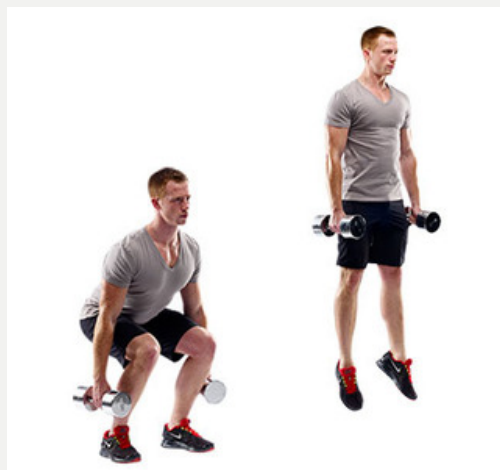
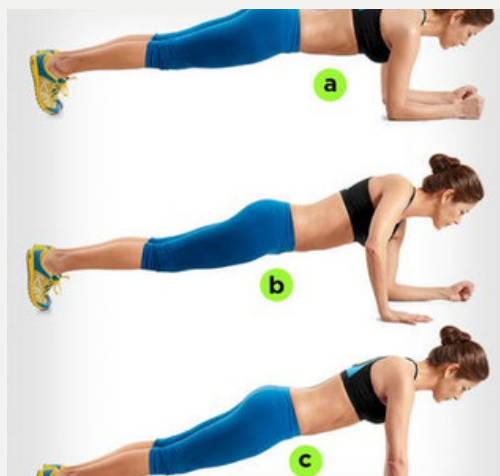
Short term effects of physical activity improve sleep, blood circulation, and mood. Long term exercise improves metabolic conditions, heart function, brain activity, muscle strength, aerobic capacity, and other physiological benefits.



LIVE HAPPIER, HEALTHIER, LONGER

Exercise Activity

- Here's a quick workout you can do in just 10 minutes! No equipment needed- Get up and get moving!
- 20 seconds of work followed by 10 seconds of rest, repeat series 5 times
- Mountain climbers: High plank position (on hands and feet, body in straight line), quickly switch feet bringing one knee towards the chest at a time
- Alternating lunges (10 each leg): Step one foot forward and lower the back knee down gently, use the legs and glutes to stand up and switch feet. Legs should be in a 90 degree position at the bottom of the lunge
- Plank climbers: forearm plank to high plank- starting on forearms, push up to a high plank position, alternate which hand pushes up first
- Squat jumps: Feet hip width distance apart, set the hips back and squat down, squeeze the glutes and jump up. Land back in a squat position and repeat.



LIVE HAPPIER, HEALTHIER, LONGER

Exercise Activity

- **Create your own workout! You can do these at home, with a partner, or at the gym!**
- **Customize a workout that you enjoy to do the most.**
- **Choose a lower body exercise:**
- Single leg squat to bench (extend one leg, set the hips back and sit on the bench. Stand up with both legs! Progress to standing up with one leg for a challenge)
- Body weight squats (add jump for challenge)
- Lunges (forward, backward, lateral, curtsy, jumping)
- Glute bridges (single leg or both legs)
- **Choose a core exercise:**
- Sit ups, bicycles, Russian twists
- Plank, hollow body hold
- Leg lifts, leg lowers, six inches
- V-ups, hip raises
- **Choose an upper body exercise:**
- Push-ups (variations include modified on the knees, or on an elevated surface, single leg or wide/narrow stance to increase difficulty)
- Tricep dips (use a chair and place hands on either side of the hips, extend feet and lower body towards the floor, push back up)
- Forearm to high position plank
- Shoulder taps in high plank position
- **Add in a heart rate booster!**
- Burpees, High knees, Ski jumps, Side to side hops, Skater jumps, Jumping jacks
- Plan a rep scheme or go for time!
- Try 2 sets of 10 reps, or see how many rounds you can complete in 10 minutes!

These are just a few examples of the wide variety of exercises to choose from. For more options, visit the workout facility for a free fitness assessment with our trainer.

Working with a personal trainer will allow you to set goals for yourself and improve your exercise skills.

LIVE HAPPIER, HEALTHIER, LONGER

Brain health

Fight depression with activity:

It's normal for people to go through many different emotions during the day. Sometimes people feel sad for a long period of time.

Depression is a common mental disorder common among adolescents to adults that consists of a persistent, overwhelming feeling of sadness, loss of appetite, insomnia or hyposomnia, fatigue, diminished cognitive function, decreased interest and arousal, or thoughts of suicide.

People who suffer with depression are less likely to engage in regular physical activity.

More common than you think:

Many Americans suffer with some level of depression, and many often go undiagnosed or do not receive treatment. Depression can be triggered by distressing life events – loss of a loved one, divorce, loss of job, trauma.

Treatment of depression including anti-depressive medication and cognitive-behavioral therapy lacks adherence and effectiveness in some patients, so alternative forms of interventions are needed.



Move more, feel better:

Studies show that exercise is more effective at improving depressive symptoms and self-rated work capacity than usual treatment alone.

Physical activity boosts mood and brain activity which can help regulate emotion and cognitive function in depressed adults.

Have you ever felt better after you work out? You can thank your endorphins, which dull the sensation of pain. Other neurotransmitters are released, such as serotonin, dopamine, and norepinephrine which help you feel more focused, motivated, more alert, and enhance mood.

Neurons are repaired and protected from injury and degeneration, and brain cells grow which regulate mood and mental clarity, important for optimal brain health.

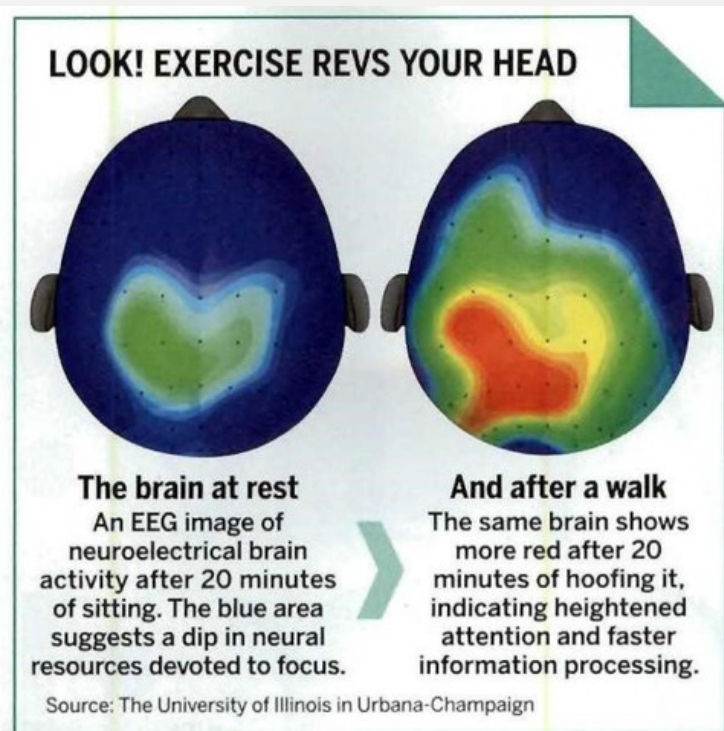
LIVE HAPPIER, HEALTHIER, LONGER

Brain health

Boost your performance

What happens to your brain with exercise? Physical activity increases blood flow to the brain, which delivers more oxygen and nutrients, and facilitates waste removal.

The hippocampus, a region of the brain responsible for learning and memory, increases with regular exercise over time. Not only does physical activity regulate key molecules necessary for mood, but it also helps improve brain function which can help increase work performance and productivity.



- Take care of your mind and body.
- Some treatments for depression include medication and behavioral therapy, but alternative forms of self-care techniques are also effective at relieving symptoms of depression.
- Meditation
- Yoga
- Joining clubs
- Working out with friends
- Staying active
- Getting adequate sleep

LIVE HAPPIER, HEALTHIER, LONGER

Brain health

Not just muscle gains

The connection between regular exercise and health risk is especially important for aging populations because increased strength, heart, brain function reduce risk of mortality. The body gains muscle and bone strength, coordination, and balance from exercise which also reduces risk of falls and fractures.

The brain becomes more efficient at executing movements every time you repeat an exercise because of faster and larger muscle fiber recruitment! (neuromuscular adaptation) This allows our bodies to move better and become stronger through long-term exercise.

Live a longer, healthier, happier life!

Engaging in regular physical activity from a previously inactive state has shown reductions in mortality risk from 38-44% in women and men. Any amount of exercise is better than none, and some benefits can still be achieved if person is at least somewhat active.

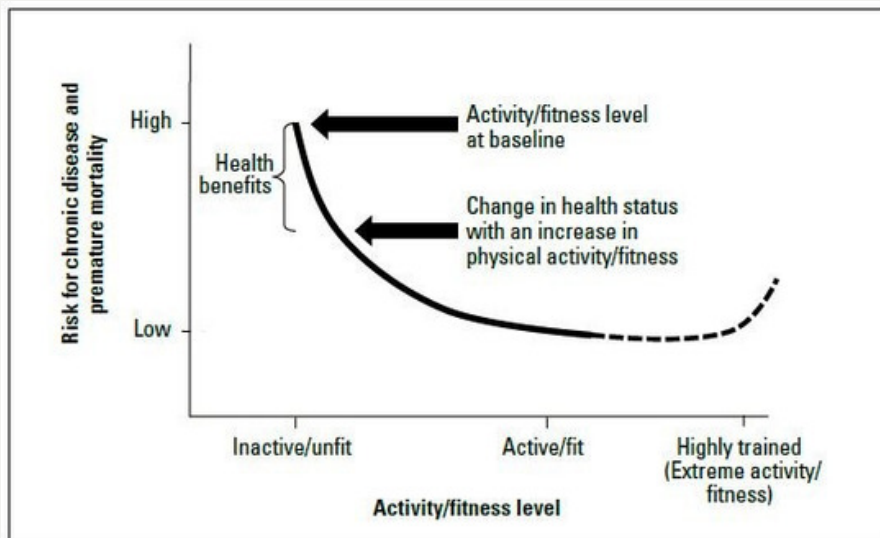


Figure 1. Dose-response relationship between physical activity/fitness and health status.

Estimates derived from prospective cohort studies are used here to show that a small change in physical activity/fitness in individuals who are physically inactive/unfit can lead to a significant improvement in health status, including a reduction in the risk for chronic disease and premature mortality. The dashed line represents the potential attenuation in health status seen in highly trained endurance athletes. Adapted from Bredin and colleagues⁷ and used with permission.

- **Exercise Increases Brain Volume**
- The mind and body connection between exercise and brain health has become increasingly stronger with recent evidence. Research has proven that aerobic training increases the volume of the hippocampus – an important brain region involved in memory and cognitive function. This area of the brain shrinks with increasing age and is associated in neurodegenerative diseases like Alzheimer's.
- Staying active while aging prevents neurological declines and maintains brain health into older age, allowing elderly adults to maintain their independence and physical function.

Frequency Asked Questions

- **Q: “I have a busy schedule. How do I meet the physical activity guidelines?”**
- **A:** Accumulating 10-minute exercise bouts throughout the day can add up to the 30 minute daily recommendations! A 10-minute brisk walk at lunch and after dinner, and a 10-minute body weight exercise routine before dinner is a manageable and effective way to incorporate moderate-intensity and muscle strengthening activity into your day! Working out in the morning or on the weekend are also good opportunities to incorporate exercise into your lifestyle if you struggle during the week. Substitute sedentary behaviors with physical activity. Increase the intensity and reduce the duration to maximize your work out if you’re short on time. Additionally, you can work out at home instead of the gym. Walking and doing muscle-strengthening activities is exponentially better than doing nothing!

- **Q: “I struggle with meeting the nutrition guidelines. I always end up eating out and eating way too much. How can I fix this?”**
- **A:** Take some time to prepare meals for the upcoming week! Prioritize lean proteins, whole grains, fruits, vegetables, and low-fat daily options. Make larger portions of a variety of foods and bring them with you to work or school so you avoid eating out. Be mindful of the calorie intake of what you’re eating when you prepare and order food! Knowing how many calories you’re consuming can help maintain a caloric deficit. Expending more calories than you’re taking in is the key to weight loss and prevents weight gain. Substitute lower calorie options when possible and limit large portion sizes. If you mess up, accept it and move on and try your best to make the next meal a healthy one!

- **Q: “I have insomnia and have very little energy during the day to exercise. What should I do?”**
- **A:** Start out low and slow! Begin walking at a moderate-brisk pace in 10 minute bouts, and gradually increase the length and intensity. Accumulate 10 minute bouts during parts of the day and then add in a muscle strengthening activity. Remember that exercise is individual – take a rest day if you’re extremely tired, but do your best not to go more than 3 days without exercising! The key to adaptation is consistency, so do your best to work exercise into your day and maintain that regularly as a lifestyle behavior and you will see health benefits. As you progress, exercise may improve the quality and length of your sleep so you’ll have more energy to be more active during the day. It’s a win-win!

Frequency Asked Questions

Q: “I eat right and exercise 5 days a week. Why am I not losing weight?”

A: Keep in mind that weekly caloric intake accounts for all 7 days of the week! Eating well during the weekdays and then indulging too much on the weekends can set you back from achieving weight loss. Plan treats into a specific day or time that way you're not depriving yourself. You can still enjoy your favorite foods, but just make sure you're mainly eating a nutritious diet and enjoying higher calorie foods in moderation. Finding a balance that works for you and that is sustainable is the key to weight loss and weight maintenance.

Q: “I’m overweight and don’t enjoy exercise. Can I just eat right and gain the health benefits?”

A: While proper nutrition is important in weight loss and preventing health-related conditions, inactivity is a main risk factor for developing chronic disease. Physical activity promotes adaptations in the body that lower resting heart rate, improve cardiovascular function, reduce body fat, lower blood pressure, assist in improving lipid profiles, increase muscular strength, and even improve mental health functions like sleep and happiness. One of the best ways to prevent chronic disease is to avoid inactivity, and even small amounts of physical activity compared to none at all reduce the risk of disease and mortality. Physical activity is just as important as nutrition for health benefits and especially weight maintenance.

Q: “I struggle with depression and have no interest or motivation to work out. How can I fix this?”

A: Start by seeing your doctor and decide on a long-term plan for treating your depression. Exercise in the addition of cognitive therapy or anti-depressant medication has a greater chance for improving depression symptoms. Find a workout buddy or join a group exercise class or a fitness community (ex: swim club, barbell club, etc) of something you like to do, or try something new! Having a group of people to participate with provides social support which can boost the likelihood of creating a sustainable health behavior. Having positive encouragement from others may help avoid isolation and feelings of loneliness and allow you to find a sense of purpose. Working out with friends can ease the burden of going to the gym by yourself and decrease exercise-related anxiety. Exercise itself can effectively reduce stress and promote happiness and better sleep, which all may help improve depressive symptoms.

Session 4
Better with
a Buddy

BETTER WITH A BUDDY



It is important to learn that exercising with a friend can increase your level of enjoyment. It is common to be nervous about beginning a new program on your own, so starting out with a buddy can make the act a little bit easier. By beginning a new program, you can not only increase positive feelings about yourself, but also strengthen the relationships you have with the people engaging in that new behavior with you. This act builds a sense of community within office space, team, or group you are apart of. This leg of the program will help you adopt the attitude that physical activity can be incorporated into your social life and break time at the office. There's nothing better than doing it with a buddy!

EXOS®

BETTER WITH A BUDDY

FRIENDSHIPS

Think back to childhood when you would join a game of kickball at recess just because your friend did. Maybe you did not want to participate, but you would do anything your best friend would do. In that case, friendship encouraged you to be active, and you probably shared some smiles with the people in that game. Kickball didn't seem so bad when your best friend was on the team with you, and now, many years later, the same phenomenon of friendship can also make exercise fun and enjoyable.

If you already love to exercise and be active, maybe you need to be the friend that encourages a fellow colleague to participate with you. **Next time you engage in an activity break at work, we challenge you to bring one new person with you on your journey.** This act of reaching out will not only give you someone to talk to, but it can show someone new that getting active is as easy as taking a walk with a (sometimes new) friend!



If you are having difficulty going into a new fitness space, taking a walk when you are not sure which trail to take, or performing an exercise at your desk by yourself, you should grab someone you trust and have a conversation with them about your goals. If you don't see them already engaging in physical activity, maybe they are feeling the same way you are! This new challenge can be something you two engage in together which will strengthen your friendship, and give you a support system through the process. Maybe that person you trust already builds physical activity into their daily life and can help you get started immediately! That person might use the gym downstairs and can show you some exercises they like to do there.

BETTER WITH A BUDDY

FRIENDSHIPS

Understand that the initial conversation you have with a friend can be difficult. There are mental barriers you may face when voicing this need.

Remember that at some point, the person you are reaching out to has also felt some level of discomfort when trying something new. You are not alone on this fitness journey.



Now think back to that game of kickball as a child. There may have been some anxiety in regards to kicking or having to catch the ball. But after you observed the other kids playing, it seemed as though they didn't care how far you kicked the ball, as long as they had something to chase after. Not everyone was good at the game- some missed the ball, most people got out, others missed a catch. Remember that when you're starting to push your body to do something new, you might feel some discomfort at first. That is normal! Anyone who has ever tried exercising has also felt this awkward feeling. If you have a friend who feels that same level of discomfort, you will have someone to talk to, laugh with, and experience the same feelings you are.

BETTER WITH A BUDDY

FRIENDSHIPS



Here are some tips to get you started:

. Schedule a time that works for you! Maybe this is a lunch break that you and your office buddy both take at the same time everyday. Or, maybe it is two, ten fifteen minute you take throughout the day to clear your head a reset. Ask your friend to take that break with you and do a lap around the office!

. Talk to your team. Open communication is key when trying to find people who are also thinking and feeling the same way you are. You might not know it, but maybe the person right next to you goes for a walk at lunch everyday. If you express you want to start exercising, you could learn their walking route and make new friends.

. Take deep breaths! Not only will this get you through your first exercise, but it's a great thing to remember before you approach someone. Take a second to clear your mind and reset if you are feeling nervous or anxious.

. Ask [David](#)! He provides fitness consultations for anyone who wants one! He also creates programs for anyone at this company to engage in. He can hold introductory exercise classes where people just like you go to begin their journey. You might just find your new exercise buddy!

BETTER WITH A BUDDY

SELF ESTEEM

It's no secret that when you feel good about yourself, you reflect positivity and happiness which can even change the mood of those around you. Exercise releases endorphins in the brain which causes a muted sensation of pain, and an increase in positive feelings and thoughts. Have you been sitting for a long time trying to reach a deadline? Maybe its time to take quick stair break to reset your mind, and make your back feel better! You will be surprised at how your level of productivity can increase with just a quick "you time" break.

Imagine if you took a walk each day at lunch. You would come back to your work feeling refreshed, positive, and ready to dive back into your work! Take a second to reflect on how many times a day you worry about how others perceive you and the way you look. Are you worried about your appearance? Do you feel like people are staring at you? These feelings are normal, but they can inhibit work performance. So, what are some ways we can change those negative thoughts? You could hide and try to silence those thoughts, or you could manipulate your brain chemistry so that happy, positive thoughts are being released!



BETTER WITH A BUDDY

SELF ESTEEM

For some, being overweight causes low self esteem. If you have a desk job, it is very easy during the day to become sedentary if you do not take enough breaks. Sedentary lifestyle is correlated with weight gain, which can lead to negative thoughts about oneself.

Regular exercise can result in:

Weight Loss

Type 2 diabetes control

Improved bone density

Improve mental health and mood state



Improving your friendships at work can also lead to greater feelings of self esteem and positivity. You are more likely to have good feelings about work and the workplace when you have a supportive friend, or group of friends, which can make going to work more enjoyable! When you feel good about yourself and secure in your relationships, your work performance will increase. Maybe you will be more confident in leading tasks, asking questions, or speaking up with new ideas!

BETTER WITH A BUDDY

SELF ESTEEM

What are some ways you can increase positive feelings about yourself?

1. Conquer a task!

It does not have to be large! It can be as small as responding to your emails, cleaning up your desk space, or taking a 10-minute walk. When you complete a task, you have a feeling self control and empowerment. Let this feeling carry over when beginning your next task.



2. Follow an exercise plan for one week

If you are new to exercising, you might feel soreness in your muscles, or a little extra exhaustion (which can help you sleep better at night!). Try starting slow with 2-3 days a week.



BETTER WITH A BUDDY

SELF ESTEEM

3. Positive Self Talk

Give yourself a pep talk in the morning. Feeling a bit down after a meeting? Overwhelmed when given a new assignment? Take a quick break and tell yourself you can do it! Deep breaths and a quick walk can clear your mind and help you refocus.

I can!
I am!
I will!

4. Connect with loved ones

When you can't find a positive thought about yourself, call up a good friend! The people around you often see the best in you, even when you cannot see the good in yourself. They can offer support and redirect your thoughts which will leave you feeling empowered.

Activity Break: Writing a Personal Success Mantra

1. Write down two successes you've had in the last year:

2. Explain how you made each of them happen

3. Write down a single statement about the underlying belief that allowed you to achieve those successes

BETTER WITH A BUDDY

COMMUNITY



Science has shown that adherence to exercise programs is greater when it is a community based program. Here at this large tech company, there are programs run by EXOS staff member and also fellow employees!

Did You Know...

You can hold your own program for whatever interests you? If you have a special niche or talent that you would like to help other people learn, you can hold a workshop! This will help you meet new people and conquer a task that will leave you feeling confident and empowered. The workshop does not have to be exercise related, but if it is, that is certainly a bonus!

If you do not have an idea for a program to instruct, keep your eyes peeled for information about programs that those around you are doing! Speak up and ask a member on your team if they participate in the group program sessions. There may be something you are interested in learning that can increase community engagement by sheer numbers.

BETTER WITH A BUDDY

COMMUNITY

Research has shown that community-based exercise programs reduce risk of falls in older adults. Group exercise classes are held at the gym downstairs! Looking to improve your balance and coordination? Check out the group exercise class schedule. Don't worry about feeling lost in class, the trained staff will make sure you feel included and secure during the workout. Everyone taking group exercise is in it together! Remember those tips mentioned earlier about making new exercise friends? Ask a team member to join the class with you.

You have the power to widen your own community circle within the workplace. Bringing a buddy to any community event, new program, or exercise class can increase how you feel about yourself, and impact awareness of all of those within the company community who have the same goals and aspirations you do. Turn these colleagues surrounding to you into something more than just a co-worker. Improve community within the work space by getting active together!



How community engagement can go from a group exercise class to wide impact activities:

- **Start Small!** When you engage with a group for a small task that you all accomplish together, it builds camaraderie within a group.
- **Expand Your Network!** New friends, new work-out buddies, new people to help you get where you want to be. Exchange numbers or emails so that if you need a friend to call on, they are only a click or call away.

BETTER WITH A BUDDY

COMMUNITY

- **Invite Your New Connections To A Work Event!** Tell each person to bring a friend or two. The number of employees at is expanding rather quickly. It is difficult to continue to meet new people when you are passionate and serious about the work you do. Work time should focus on what needs to get done right? We challenge you to a lunch break, or post work activity, where you invite your new group of connections and their plus ones (or twos!) to join you in any activity! This is a great time and place to make plans for what's next!
- **Go Beyond The Work Community!** Are you passionate about a non-profit down the street? Need someone to encourage you during the 5K for a cause next weekend? Bring the work community out to support local businesses and non-profits near you! Use your new network to make an impact on those around you. You may find someone who love volunteering as much as you do! It is more fun when you do it with a buddy. Once you have a successful volunteer experience, you are likely to take on larger obstacles. Who knows, maybe you and your new community group will start their own community fund raiser for a nearby group in need!



You can have a large impact on your community if you increase awareness about what you are passionate about. The more people you speak to, the more people that can help you reach a new goal! So get out there and introduce yourself. There are many opportunities for you to meet new people. It may be difficult at first, but start small with your close friends and encourage them to meet new people too! Watch your circle grow within days!

BETTER WITH A BUDDY

ENVIRONMENT

We want you to feel comfortable in your own skin while asking questions and beginning a new exercise routine. A lot of comfort comes from being familiar with the space around you! Grab a friend and talk a walk down to _____ office for a quick tour of the gym space. Once you check out the space for yourself, you may have less qualms with going down there on your own time. The EXOS gym is a friendly, no judgment space, where we let those around you inspire you to be the best version of yourself.



We engineer our spaces to have a safe, effective, and movement-inspired layout that is also aesthetically pleasing. Our spaces are clean, and staffed with the best in the business to help educate those who walk through the door. Is there a piece of equipment you don't know how to use? Just Ask! The employees want to ensure your safety in the space so you feel comfortable with using the equipment the correct way. This way, you can also get the most out of each exercise.

BETTER WITH A BUDDY

ENVIRONMENT

Are you thinking the gym is not the place you want to start out? Maybe you think you can start your fitness journey with adding in a walk a day, but you aren't familiar enough with the building layout or

area for you to go for a walk. This is where you can ask a friend! Maybe someone has been around the office for a little longer than you have and can show you a new walking path.



Walking Trails

Trails On your way into work, did you notice the paved walking trails and sidewalk that line the East Liberty area? Some of these trails run through the living community so that employees can live close to work and walk or bike in! There are plenty of walking trails outside, but what about loops around the office floor? How far is the distance that loops around the floor? There are arrow trails around the office, some include that stairs, that take 5-10 minutes to complete, depending on how fast you walk and how many laps you do! Test one out with a friend today!

Biking Trails

Pittsburgh is a bike friendly city! Bike trails are being put in all around the city to inspire those to get more active! There are bike racks outside of the building and also a Healthy Ride Bike park station where you can drop off that rented bike you rode in to work in the morning. You can visit "healthyridepgh.com" for more bike locations to see if there is a station near your house! Getting active on the way to work has now been made easy!

FREQUENTLY ASKED QUESTIONS

Q: Are there any maps of the walking trails?

A: Yes! We are developing office loops that take 10-5 minutes to complete. These maps are located at Coach Nate's office outside of the gym! There are routes that incorporate the stairs, and routes that are all outdoors for those beautiful spring and summer days!

Q: Does the gym have any social events?

A: Many employees hold programs that are more socially focused than exercise focused. Keep your eyes peeled and ears open for news about programs that appeal to you.

Q: How do I set up a consultation?

A: Visit Coach Nate's office! He is located on the first floor next to the gym. You can stop by any time or shoot him an email to schedule an appointment with him for your free consultation. He can help you set goals, show you how to work equipment, and even hold a workshop for you and your friends surrounded on your needs at the gym.



FREQUENTLY ASKED QUESTIONS



Q: Will I fit in? Is this gym for me?

A: Absolutely. There are gym goers of all shapes, sizes, colors, and ages down here in the EXOS space. We believe that performance is for everyone. Whether you think of yourself as an athlete and are training for an event, or just need to improve joint mobility so you can not get stiff while working of a task at your computer. We teach functional movement techniques to help everyone no matter how big or small your goals are.

Q: What are the popular gym hours where I can meet people like me?

A: Check our schedule posted at the gym! Popular floor times are 6:30 AM-8:00 AM, 11:00 AM- 1:00 PM, and 4:30 PM-6:00 PM.

Q: What is the group exercise schedule?

A: The group exercise program is listed on the social media platform. We also post the schedule at the gym, so come on down and check it out!

Session 5
Hustle for
the Muscle

BENCHMARKS FOR GREATNESS

GOAL-SETTING

Goal setting in health behavior change and maintenance interventions aim to set benchmarks that can lead to higher performance when compared with no goal. Specific strategies for setting the utility of health-related goals is proven to lead individuals to a healthy lifestyle. Mechanisms underlying behavior change and maintenance can examine the necessary conditions for effective goal setting, and offer recommendations for developing short and long-term goals. Goal-setting can vary by degree of difficulty, degree of specificity or degree of complexity. For example, a vague weight loss goal might be to “lose weight”, whereas a more specific weight loss goal would be “lose ten pounds in three months.” However, once a person is interested in achieving a goal, and is relatively free of goal conflict, goal setting can motivate higher performance than if goals were not set.



WHAT ARE YOUR GOALS?

Making any lifestyle change can be tough and challenging. Many people find that having a goal in mind can give them something to work toward. In order to set physical activity and lifestyle change goals, there are several key principles that you can apply to help you set your goals:

Pinpoint your ultimate goal – suggestions include:

- Be realistic – Your ultimate fitness goal can be anything based on YOU! Remember that most of us will never be elite world-famous Olympians and athletes. Think about what is achievable for you and write them down.
- Be specific – Don't make your ultimate goal a generic statement like “lose weight” or “walk more”. Make your goal measurable so that you can reach an end-point. Say “I want to lose ten pounds” or “I want to walk 20 minutes every day.
- Make it meaningful – Establish a goal that you want to do. If you want to shed a few pounds, make sure that goal is important to you and no one else.

Find out how to achieve your ultimate goal – once you have decided on your health and fitness goal, you need to consider how you can reach that goal! Different fitness goals will require different approaches. An effective strategy may be:

- Exercising in the morning instead of after work
- Allotting time during the workday to visit the fitness center
- Take the stairs instead of elevator
- Schedule a walking meeting outdoors

SMALL STEPS, BIG CHANGES

TIPS FOR REACHING A HEALTHY WEIGHT



Adapt to changing circumstances – life can sometimes get in the way of your training schedule. Suggestions for adapting to such changes include:

- Cope with interruptions. You may not be able to exercise in your usual way when on vacation, but you can always walk or use fitness facilities in local hotels and other areas.
- If you become injured or sick, don't lose sight of your fitness goals! Instead, adjust your ultimate goal's time frame.
- If your fitness goal seems beyond you, readjust your mini-goals and stay motivated.

Don't be too hard on yourself – Sometimes, you may find that your goal is too ambitious. You know how you feel much better than a scale does!

- The first few months of a new exercise program are always the most challenging. Adjust mini-goals, persist and understand that it will get easier over time!
- Celebrate your achievements, no matter how small. Flip back to the start of your training diary and appreciate how far you have come.
- Do not give up! You are worth the effort and you are farther ahead than you were yesterday.

AVOIDING BURNOUT

The term burnout is used to describe “a gradual depletion of energy combined with a loss of motivation and commitment after prolonged exposure to high occupational stress”. Employee burnout may result from numerous factors such as an inability to influence decisions that affect your job such as your schedule, assignments or workload.

Burnout often takes place over a longer period of time. You might experience it if you believe your work is meaningless; when there's a disconnect between what you're currently doing and what you truly want to be doing; or when things change.

Exercise and fitness burnout may be categorized as if boredom overcomes commitment and motivation or if results of past exercise program no longer work. Both employee and exercise burnout can be categorized into 4 stages.



*1. TAKE (MORE)
TIME FOR
YOURSELF.*



*2. PLAN
AHEAD.*



*3. DO MORE
JUST FOR YOU.*

WORKOUT BURNOUT

8 TIPS TO HELP YOU AVOID EXERCISE BURNOUT

- 1. Ease Into It** – Things that start intensely usually flame out quickly. Take a measured approach when you begin working out; try two short sessions each week and build from there.
- 2. Stay in to Work Out** – Sometimes, just the logistics of working out burns us out. Simplify things with gym-quality workouts at home or squeeze in a few office workouts during your work day.
- 3. Make Minor Changes Often** – Shuffle the order of your workout, add new challenges, or change the venue if you're outside of a gym environment. Little changes every week or so will keep things fresh and help avoid burnout.
- 4. Make Major Changes Often** – Shake things up completely every couple of months. Use new machines, target new muscle groups, add a yoga or tai chi class, or split one long workout session into two or three shorter ones.
- 5. Freshen Up the Soundtrack** – Music moves us. Even the most monotonous workouts come to life when put to a new soundtrack. Channel your inner DJ; freshen up your playlist and make your fitness routine far less routine.
- 6. Reward Yourself** – If your fitness plan is losing steam, power through by adding a few simple rewards. The trick is sticking to the promise you've made yourself. Make it through the week and take yourself out to dinner. Hit a major milestone and spring for a 90-minute deep tissue massage to work out the kinks.
- 7. Partner Up** – What better way to perk up a workout than by sharing it with someone else? Add a partner to spark motivation, encourage mutual accountability, provide good conversation or comic relief, and keep your goals on-track.
- 8. Play** – Working out doesn't have to feel like work all the time. Explore ways to make exercises more fun. Better yet, get social and spice up your normal routine by organizing informal games of racquetball, kickball, volleyball, or tennis matches with friends or coworkers.

CAREER BURNOUT

8 TIPS TO HELP YOU AVOID DAILY WORK BURNOUT

1. Take a Vacation and Fully Unplug – a relaxing vacation can help get your mind away from the office and duties. It's important to put on an out-of-office message, too, and not respond to emails.



2. Forget Balance, Find Harmony – find passion and harmony in work by being connected and caring about your team and clientele.



3. Know Your Breaking Point – it's so important to know when you are close to reaching a breaking point in your career. Something as simple as taking a day off or going out for a night with family and friends can help take the edge off.



HEALTHY EATING TIPS

MAKING THE RIGHT CHOICES

4. Fill Your Day With Joy – You should aim to work to fill your day with what you love to do. When work feels like a job, redirect those tasks to someone who loves them. Not a great organizer? There will be someone who does. Hate numbers? There is someone who loves them! When work is a blast, burnout doesn't exist.

5. Schedule Free Time – Just like you would with a meeting or inventory or anything else. It's crucial to take the time you need for yourself, even if it's just 30 minutes a day. You'll get back to work feeling recharged and inspired, and chances are, you'll accomplish a lot more than you would if you worked straight through the day.

6. Change Your Environment – Take your laptop and spend your workday outside or at home. The change in environment sparks your creativity and allows you to bring new energy into your work.

7. Pursue Your Passion – Focusing time and energy on parts of the day that you are passionate about will fuel you for happiness throughout your career.

8. Live With Mindfulness – Have an ongoing focus on mindfulness rather than only when on breaks and vacations. Find ways to detach during the week in a way that works for you. Be mindful of those moments.



REACH FOR THE STARS!

Set small, specific mini-goals – you are more likely to reach your ultimate goal if you break it down into small, short-term mini goals. Short term goals are specific, daily actions or behaviors that can help lead for your ultimate goal. Suggestions include:

- Set a reasonable time-frame. For example, if you want to lose thirty pounds, then a realistic weight loss of one pound of body fat every week can help you get there.
- If you want to run a half-marathon, set a mini goal of running a 5k a few weeks into your training regimen

Monitor your progress regularly – decide how you are going to monitor your progress and record every detail in a training diary. Suggestions include:

- Monitor progress in a diary. For example, if you are resistance training, write down weight, sets and repetitions. If you are exercising to lose weight, write down your weight loss.



TECH-FRIENDLY

Lifestyle interventions for weight loss are typically intensive and require group meetings or individual sessions. While effective for weight loss, meeting in groups or individually may not be tempting to participants who are busy, or unable to attend sessions in their daily schedule. Recent technology-based interventions have utilized web-based portals, text messaging, mobile apps and podcasts with social media. Results suggest that the weight loss achieved with the wearable technology system is improved. Realistic findings provide evidence that weight loss interventions can be successfully implemented in a variety of ways in adults with obesity by utilizing technology.

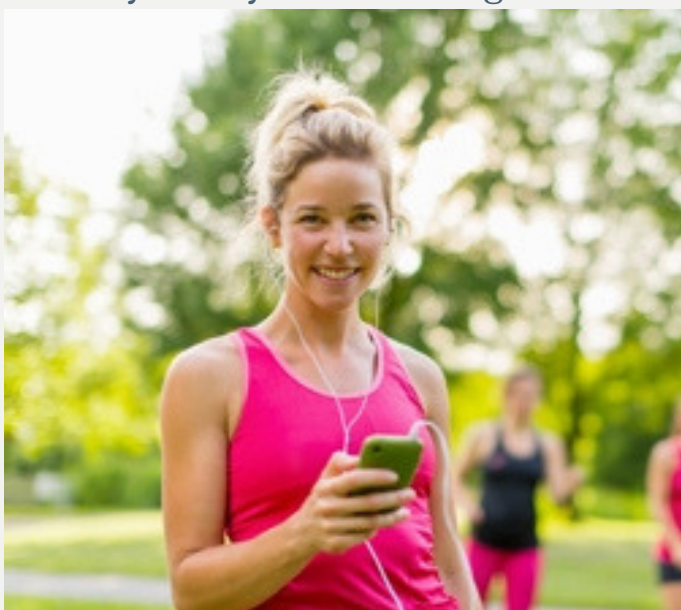


Nowadays, there are a plethora of electronic devices that are great for those who are looking to incorporate exercise into their daily routine. Other popular forms of technology for physical activity include pedometers, heart rate monitors, phone applications, video sources, and even games. While employers probably don't want their employees glued to their phones for the entire duration of the workday, when there are legitimate educational benefits, the use of phone apps inside and outside of the workplace should be encouraged. A phone application can provide an educational component, utilize positive reinforcement and be a useful record tool for progress.

PHYSICAL ACTIVITY & TECHNOLOGY

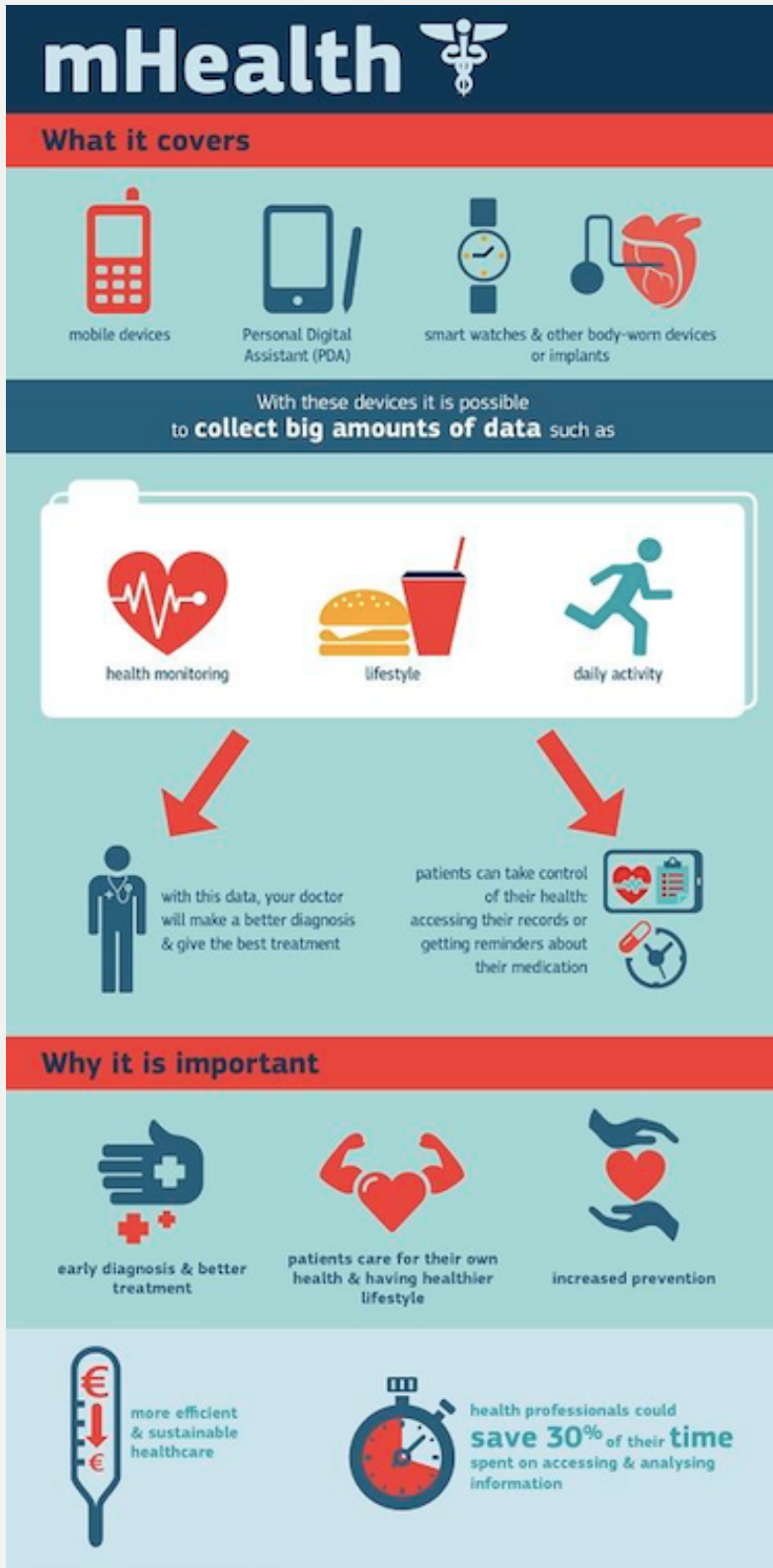
It's important to strike a balance between using technology to encourage physical health and activity which allows individuals to create more activities and demonstrate the importance of setting and meeting fitness goals, while not completely relying on technology. Since technology is so prevalent in many of the employees' lives today, integrating it into their exercise routines will help them set a good habit of allotting time out of their day to exercise even outside of the workplace.

phone application and teach them how to use various forms of technology for their health, they are able to make use of the devices they own to maximize health benefits outside of the office on weekends, for example. Informing employees of the available resources they have also eliminates them needing to go out of their way and find these resources to help them sustain a healthy lifestyle in the long run.



TECHNOLOGY AND ME

HOW CAN IT HELP?



The effects of technology-based physical activity promotions are likely to vary with the intensity of the program. Those that are more intensive, including some supervised contact and that include information or recommendations that are tailored to individual users will be the most effective.

There is emerging evidence that interventions to promote physical activity may be more effective when they include self-monitoring plus at least one other technique such as assistance with goal-setting, feedback on performance, review of goals, and techniques such as prompts, planning, focus on past successes, barrier identification, and problem-solving.

Physical activity promoting phone applications have the ability to expand the potential for using their unique communication features and encouraging physical activity in innovative ways.

ELECTRONIC APPLICATIONS

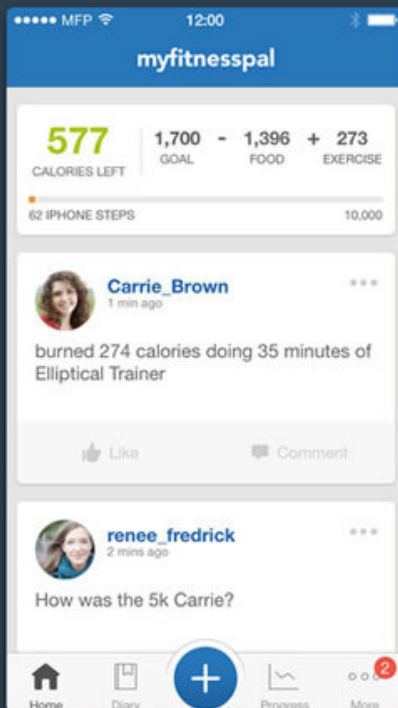
MY FITNESS PAL

Millions of people have used MyFitnessPal to help log their weight loss and physical activity efforts. It is that world's largest nutrition and calorie database — over 5 million foods!

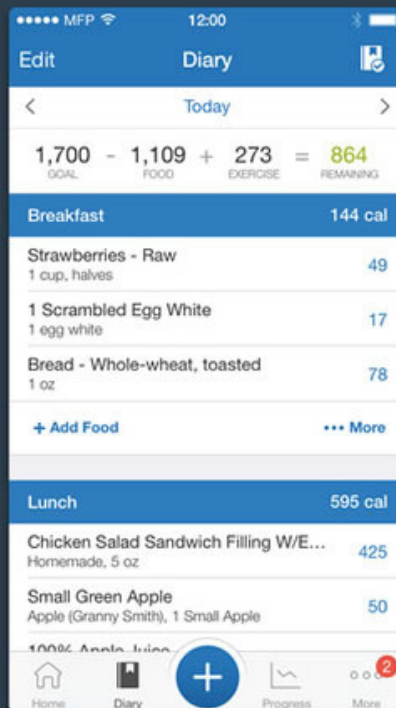
- Medical studies show that keeping a food journal **DOUBLES** your weight loss!
- Quickly add and log recipes from across the web
- Easy and fast
- Signup for free, with no strings attached

Track your health from anywhere, anytime.

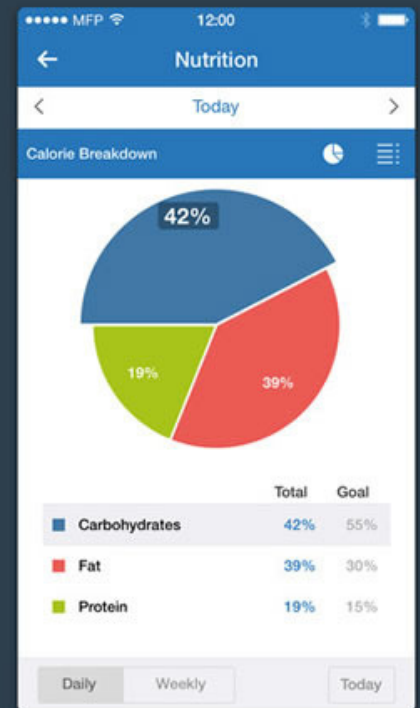
New: HealthKit makes it easy to share your data with other apps



Learn to be healthy, everywhere you go



Keep your goals in view and track your progress



GET FIT, HAVE FUN!

Enjoyment is both a predictor and outcome of physical activity participation. Expectations of enjoyment from physical activity can increase intentions to exercise and positive emotions elicited predicts physical activity adoption and maintenance. However, stronger anticipation of negative emotions is associated with weaker physical activity intentions and behavior.



Understanding the psychological processes that underlie motivation for exercise participation is particularly interesting. Only 25% of US adults participate regularly at a level sufficient to reduce premature mortality or maintain cardiorespiratory fitness while 50% of the adults who initiate exercise, drop out within the first six months of participation.

EXERCISE CONSISTENCY

HOW TO TURN A PHASE INTO A HABIT

There are numerous ways to enjoy exercise. For some, exercising is a burden or a necessary evil. To others, it is a time to get away from everyday life and to let out excess emotions. For some people, the habit just never sticks. Some individuals don't like to work out because they have been taught to do it for the wrong reasons. The negative message frames exercise as something we should force our bodies to do, not something that we should internally want to do.



For individuals just starting to exercise to individuals who exercise daily, each person should find out what works for them. Whether it be a judo class, yoga, cycling or resistance training, finding an enjoyable form of exercise is what will keep you going. All-or-nothing thinking can derail anyone from their workouts. If the day gets away from you, and your 45-minute workout can only be a 20-minute workout, then so be it. What is important is that consistency matters more than quantity. By cultivating a lifelong relationship with enjoyable movement, it will keep physical activity and fitness interesting.



HUSTLE FOR THE MUSCLE!

12 WAYS TO MAKE YOUR WORKOUT MORE ENJOYABLE

Make it a Habit – Remove the thinking element. If you can make exercise a habit, then it becomes that much easier to go.

Tune Your Challenge Level – Your goal is to set a workout routine that is challenging, but not overwhelming. Challenge is key to enjoyment.

Short Workouts – Don't have time or enthusiasm to last an hour? Just go for twenty or thirty minutes. Shorter workouts can be better than longer ones if the intensity is higher and you become more focused as a result.



Get a Partner - Get someone else to go to the gym with you. Pick someone who is committed to their health. Not only can you socialize with someone while you're there, but you'll have a backup in case your motivation alone isn't enough to drag yourself out there.

Get Past Your Comfort Zone – So what if you aren't the most svelte or muscular person in the gym? Self-consciousness can be a big obstacle to enjoying your workout. The key is to get used to it. When you continue to show up, you'll pay less attention to the people around you and more to your workout.

HUSTLE FOR THE MUSCLE!

12 WAYS TO MAKE YOUR WORKOUT MORE ENJOYABLE

Music – This shouldn't come as a surprise, but music can enhance a workout. Switch up your playlist, find a new genre of music to keep your workouts interesting.

Daily Challenges – Make your workout into a game. Sticking with the same type of exercises can get boring, so mix it up by introducing an unusual workout challenge.



Record Improvements – Keep a record of your strength, endurance and flexibility so you can get pride in your accomplishments.

Experiment – Don't stick with the same routine. Mix it up and try different activities. There are many different exercise routines you can follow or activities to try. If you don't like lifting weights or running, try sports, martial arts or dancing.

Make Exercise Your Stress Relief – Exercising can be cathartic and release negative feelings if you get used to using it that way. Then instead of avoiding the gym because of a stressful day, it will be your reason to go.

FREQUENCY ASKED QUESTIONS

Q: What are some benefits of recording goals prior to starting a workout program?

A: By formulating goals ahead of time, it will give direction to your destination and will allow you to have a clear focus on what is important to you. By maintaining a clear goal, it can allow you to have control on what you want to reach. Goals give you hope and something to aspire to. In itself, having a meaningful goal to think about and envision reaching can be very motivating. As you start towards your long-term goals, you are able to accomplish some short-term goals. With those accomplishments, your long-term goal becomes more realistic. The more short-term goals you are able to accomplish the more you believe you will reach your ultimate goal. That feeling of accomplishment fuels your desire and continues to motivate you to achieve even more.

Q: What if I am unable to find time during my day to exercise?

A: Make a schedule and prioritize time to exercise! Try and find the time that best fits you and your schedule. Even if you a lot 20 minutes to do a short bout of physical activity that is a great start!

Q: What type of areas am I able to access on MyFitnessPal?

A: You are able to link the phone application up with third-party apps to create a more comprehensive picture of your daily fitness. On the app, you can track your fitness, daily goals, record workouts and many other things! The fitness area of the app has a workout library, health education, consultation, “paths” that direct necessary improvements and others.

FREQUENCY ASKED QUESTIONS

Q: I am finding it too difficult to work out earlier and after work. How can I exercise during my day?

A: If you are not fully committed to working out for 45 minutes each day, don't push it! There are plenty of activities to do during the day to keep you moving! Start off by taking the steps instead of the elevator! Take the long way to get to your desk or work area. Find some exercises that you can perform at your desk for a short work break. Park your car a little farther away from the office. When the weather is nice, take a walk outside during your lunch break. Suggest a walking or standing meeting with co-workers instead of being seated. Start here, and you will be well on your way to exercising at least 20 minutes during the day!

Q: I love using the fitness center, but all I am using is the elliptical machines and I am getting bored. How can I change up my work out?

A: There are so many things you can do to change up your work out! Start getting familiar with other cardio machines like the treadmill, cycle, rowing machine, and stepper. You could start working out with different modes of exercise such as free weights, machines, barbells, kettlebells and body weight exercises! You could get involved in classes offered in the fitness center such as Zumba, ab class, judo, step aerobics, and more! If you don't know how to use machines or have questions, someone is always available to help run you through questions or a program that you have.

Section 4

Participant Recognition

COMPLETION LETTER

Dear _____,

Our mission for Flow into Better Health is to ensure that all participants are provided with an opportunity to live a healthy and physically active lifestyle that best suites their work schedule and environment. We hope that completion of our program will be celebrated with a gain in self-confidence to set & accomplish a goal, while also providing motivation to challenge oneself to be healthy, and physically active for a lifetime. It is important that participants don't view the completion of our program as conclusion, but rather a stepping stone to improve physical, mental, emotional, and social health that they can continue to build for continued wellness. Although our program is now complete, we also encourage participants to continue their Flow into Better Health just as they have been, and begin setting new goals for improvement. We believe that spreading the word, and getting others on board with their own Flow into Better Health can contribute to working individuals everywhere. On behalf of _____ Coach, EXOS, and all contributors to Flow into Better Health, we would like to congratulate you on completion of our program and hope that it will be beneficial for the rest of your life.

Sincerely,

Bowe Myers, Marisa Galli, Gina Cappa,
Leigh Anne Tarabocchia & Nathan Parry



CERTIFICATE OF COMPLETION

THIS CERTIFIES THAT

has successfully completed the EXOS,
Health and Human Performance
company approved, "Flow Into Better
Health" Physical Activity
improvement plan

FOLLOW-UP

We would like to provide a SMART goal worksheet that we believe can be an immediate and beneficial resource for participants who just recently completed our program. This will ensure they continue making short & long term goals for physical activity!

S	Make it S pecific	What do you want to accomplish?
M	Make it M easurable	How will you know when you have accomplished your goal?
A	Make it A ttainable	How can the goal be accomplished?
R	Make it R elevant	Is this goal worth working hard to accomplish? Explain.
T	Make it T imely	By when will the goal be accomplished?

Section 5 Evaluation

EVALUATION

Program evaluations will be used to determine success of this program and to which extent each objective was reached. The evaluation will be used to justify expenses and show the need for future programs meant to improve the quality of life in these employees. The focus of a post-program survey used to assess the impact on individual change will be to address the following questions:

Has your levels of physical activity increased since beginning participation in this program?

Are you now more educated and aware of the potential benefits of physical activity and healthy lifestyle choices as they relate to you?

Have you become more adept at utilizing the tools and services at your disposal to better improve your quality of life?

Has your health in any way improved as a result of this program?

Has your work performance been positively impacted by this program?

Identification of future improvements to the program will also be determined through post program surveys. Through the use of facility attendance records we will be able to determine if this program successfully incorporated more employees into the Exos facility. Improvements made over the current attendance rates of fifty percent will show to what extent this program was successful in recruiting more employees to be active.

Desired outcomes:

Improved Physical Activity Participation

Improved Exercise Participation

Improve Collaboration

Decrease Fatigue

Improved Health Knowledge

Improved Flow and Reduced Barriers

EVALUATION

In a few short words express your answers:

How much are you satisfied with your level of activity and performance at work?

How would you describe your ideal work performance state?

What barriers do you have with physical activity?

How would you describe your level of cognition, nutrition, and overall health?

Do you think you can improve upon your performance at work and overall health?

Are there any specific areas in your health that you struggle with?

Do you have an idea of how physical activity and healthy lifestyle choices pertain to you?

How would you rate your ability to make healthy choices on a regular basis?

Are you aware of any resources you can use to optimize your health and performance?

How would you rate your quality of life?

Section 6

Resources

RESOURCES

Dietary Guidelines for Americans 2015-2020 (8th Edition)

PDF download version available at www.dietaryguidelines.gov

This resource provides current detailed guidelines about nutrition for everyday Americans. The information includes macronutrient recommendations and outlines other healthy lifestyle guidelines such as the amount of physical activity levels that should be reached per week. I used data from this website to provide evidence supported suggestions to improve eating and activity habits. There are many different factors that play a role in guiding a proper diet and exercise regimen, and these guidelines provide substantial information that allows individuals to modify healthy eating and activity goals to their lifestyle. The overall goal is to eat less processed foods and to be more active, which is detailed in this book using specific research to support quantifications of energy intake and expenditure.

How Exercise Improves Work Productivity

<https://www.livestrong.com/>

This article briefly discusses most of the main points that our program is all about. It explains how physical activity and exercise can lead to an increased blood flow to the brain which can result in enhanced alertness and energy which both lead to improved work productivity. It mentions that having a better physical health can help you meet the demands of your job and explains how the release of serotonin from the brain during exercise can reduce feelings of stress, anxiety, and depression while also enhancing your mood. The article concludes with explaining how being physically active and exercising can help with illness prevention which results in less absenteeism and better work productivity.

Center of Disease Control: Health strategies to reduce musculoskeletal disorders

Workplace Health Promotion. <https://www.cdc.gov/>

This website is a well esteemed factual site that uses the data of many different reports and studies to determine which work health promotion techniques are appropriate and effective. This specific page of the the website focuses on the topic of programs targeting the reduction of musculoskeletal injuries and disorders in the workplace. I used data retrieved from this site, in addition to established behavioral theory models to create many of the recommendations made throughout the program. This site was very useful for current statistics on musculoskeletal conditions affecting workplace performance and was used to determine which conditions would be specifically discussed in this program.

RESOURCES

10th Edition ACSM Guidelines for Exercise Testing and Prescription

<http://www.acsm.org/>

ACSM offers guidelines for exercise prescription for the general population as well as multiple special populations such as diabetic, arthritic, children and elderly, and multiple way to test fitness for these populations. This is a great source to follow when you need a reminder on a general guideline that is deemed safe and effective. The guidelines are a source that can be recommended to anyone with questions about exercise, it is easy to read and transferable between many populations.

Harvard Business Review: Help your Employees Find Flow

<https://hbr.org/>

Implementing flow tactics that work is not as easy as it may seem. This article highlights that everyone in the company must be on board when implementing flow in the workplace because distractions need to be at a minimum. Tracking progress with small goal setting is a way to help employees feel achievement and a drive to continue to work. It is noted that staying away from email midday can enhance productivity, so in place of that break time, physical activity would be a great filler to increase blood flow to the brain and keep bodily stimulation going.

All About Flow and Positive Psychology

<https://positivepsychologyprogram.com/>

Need a refresher on Flow? This resource contains everything from the characteristics of flow to who experiences it, how to get in it, and motivation techniques for reaching a flow state. Balance is key when attempting to get into flow, because one must not think of the task at hand as 'too hard' or 'too easy'. Flow has been enhanced in some when working in a group with individuals who challenge you. It is not only more enjoyable, but helps ideas bounce around from mind to mind to create the best product possible. A way to boost flow is to surround yourself with positive imagery that either inspires a final product or replicates a similar goal to one that you have. It increases self confidence which improves performance on a given task.

Section 7
Annotated
Bibliography

SESSION 1: ENJOY WORK? WORK OUT!

Motivation

Thøgersen-Ntoumani, C., Loughren, E. A., Kinnafick, F. -, Taylor, I. M., Duda, J. L., & Fox, K. R. (2015). Changes in work affect in response to lunchtime walking in previously physically inactive employees: A randomized trial. *Scandinavian Journal of Medicine & Science in Sports*, 25(6),

Physical activity during the workday can improve motivation/enthusiasm to work, increase relaxation, and decrease nervousness from work. To support this claim, a recent research study was conducted in which a daily lunchtime walking intervention was implemented amongst university employees. The aim of the study was to determine the effects of the walking program on job-related affected mental states. Walking had both an energizing and relaxing effect of the participants and was most effective who began immediate treatment when compared to those who began a delayed treatment. The lunchtime walking program resulted in improved motivation, along with reduced stress, and nervousness throughout the workday. Strengths of this study include the objective measures that were kept by the walking leaders via records, whereas other similar studies relied on self report. Previous studies similar to this have only used active individuals. Limitations of this study is that it was mostly women who participated in this study, therefore other contextual factors need to be considered when analyzing the results of this study. This could be a reason why there was increased motivation and enthusiasm during the lunchtime walking.

Work Performance

Ben-Ner, A., Hamann, D. J., Koepp, G., Manohar, C. U., & Levine, J. (2014). Treadmill workstations: The effects of walking while working on physical activity and work performance. *PloS One*, 9(2),

Decreased physical activity & being sedentary at work may be a more substantial contributor to the obesity epidemic than a lack of leisure time activities. The subjects used in this particular study were volunteer sedentary employees from a financial services company who utilized the treadmill workstations for an entire year. They could adjust the speed of the treadmill at their will (0-2mph) and could utilize a standard chair-desk arrangement. Participants and their supervisors completed weekly online performance surveys to assess the aforementioned work performance variables. Results indicated that they workplace treadmill to improve physical activity and reduce sedentary time for employees resulted in improvements of overall work performance, quantity and quality of work performance, and interaction with co-workers. The strength of this study is the implementation of workplace treadmills used to increase physical activity and decrease sedentary time. Granted, treadmills may may not be feasible & practical for all companies however the evidence supporting something as simple as walking more throughout the day to improve work performance variables is a very practical strategy that employers could implement for their employees. A limitation of this study is that participants were all volunteers. Some people may not what to, or would be able to perform their work while walking either do to a lack of motivation, or injury. Nor should they be forced to.

SESSION 1: ENJOY WORK? WORK OUT!

Cognitive Performance

FRITZ, K. M., & O'CONNOR, P. J. (2016). Acute exercise improves mood and motivation in young men with ADHD symptoms. *Medicine & Science in Sports & Exercise*, 48(6), 1153-1160.

Symptoms of mental disorders associated with ability to maintain focus, such as Attention Hyperactivity Deficit Disorder (ADHD), are very common among adults. These symptoms can often lead to employees becoming very fatigued and confused to complete their work. A recent study conducted on 32 adult men (aged 18-34) with diagnosed adult ADHD, performed 20 minutes of moderate intensity cycling exercise, resulted in an enhanced motivation to complete mental work, increased feelings of energy, along with decreased feelings of confusion, fatigue and depression. Surprisingly, the same age group. Although cognitive performance was not improved from the acute exercise bout, motivation to perform cognitive tasks was increased. In addition confusion and fatigue associated with completing cognitive tasks was delayed from the 20 minute exercise bout. The lack of cognitive performance improvements could have also been attributed to the tests that were given, as they require sustained attention for success. A strength of this evidence suggests that although cognitive performance may have not been improved based on the results of the acute exercise test, motivation & mood to complete cognitive tasks, along with a delay in confusion and fatigue associated with cognitive tasks can definitely improve an individual's ability to complete their work effectively and efficiently. A limitation is that the study was only used with diagnosed ADHD which makes it less relevant to evaluation of the entire population of students & workplace employees.

Cognitive Performance

Pilcher, J. J., Morris, D. M., Bryant, S. A., Merritt, P. A., & Feigl, H. B. (2017). Decreasing sedentary behavior: Effects on academic performance, meta-cognition, and sleep. *Frontiers in Neuroscience*,

Acute exercise bouts have been shown to increase employee & student physical activity without negatively affecting their cognitive functioning while completing their academic & job-related work. A study was implemented for university students which consisted of physical activity workstations to be used while studying or performing other academic work. The students specifically used stationary bikes to perform their work and completed pre, weekly and post surveys as a form of assessment to compare the use of a stationary bike, rather than a traditional work desk. Results from the surveys indicated that traditional desks were easier to use, and more comfortable for academic work when compared to the stationary bike. That being said, their academic performance was not negatively affected from the use of the stationary bikes and their sleep quality was reported to be better later in the semester. A strength of this study and its results suggest that workplace activity stations could be a beneficial means to combat sedentary behavior or physical inactivity in environments where they sit for a significant amount of time. In addition, a physical activity workstation could offer the beneficial health and well-being outcomes that are associated with living a physically active lifestyle without negatively affecting work performance. A limitation of this study was that it was only conducted with college level students, therefore several other variables need to be considered when evaluating exercise on cognitive functioning.

SESSION:2 EASE YOUR FLOW

Carpal Tunnel Syndrome

Goodson, J., DeBered, M, S. Wheeler, A., J. Colledge, A., L. (2014). Occupational and Biopsychosocial Risk Factors for Carpal Tunnel Syndrome. *Journal of Occupational & Environmental Medicine*. 56 (9), 965-972. doi: 10.1097/JOM.0000000000000202

Occupational settings can increase the risk of a person developing carpal tunnel syndrome(CTS) and increase the likelihood of surgery. It is important to isolate the risk factors that further increase a person's risk of developing CTS to prevent and reduce the effects of the disorder. The authors of this article find that psychosocial factors may be related to the development of CTS. occupational repetition, health, physical activity levels, job satisfaction, and obesity were found to be either significant or closely related to the development of CTS. The use of the wrist in physical activity and vigorous exercise were found to especially decrease the likelihood of developing carpal tunnel syndrome. A strength of this article was the analysis of a wide range of possible risk factors. This study is limited by the population of a single outpatient orthopedic clinic. The nature of the job for google software engineers puts them at higher risk for developing CTS. The use of workstation tools can help prevent CTS during work, but there are other ways of preventing the disorder outside of work as well. By encouraging these professionals to engage in physical activity, their risks of CTS decline.

Osteoporosis

Giangregorio, L., M. McGill, S. Wark, J., D., Laprade, J. Heinonen, A. Ashe, M., C. MacIntyre, N., J. Cheung, A., M. Shipp, K. Keller, H. Jain, R. Papaioannou, A. (2014). Too Fit To Fracture: outcomes of a Delphi consensus process on physical activity and exercise recommendations for adults with osteoporosis with or without vertebral fractures. *Osteoporosis International*. 26 (3), 891-910. Doi: <https://doi.org/10.1007/s00198-014-2881-4>

Osteoporosis is a difficult disorder that can lead to fractures, falls, surgery, and pain. It is important to identify the risks of developing osteoporosis and work to reduce and prevent the chance of developing the disorder. The authors find that key questions from patients did not have a clear consensus. In this article, the areas of exercise prescription, therapeutic goals of exercise, and the recommendations for those with osteoporosis should be. It was found that the guidelines for exercise are appropriate for those without fractures. Learning spine-sparing techniques like the hip hinge are preferred over restrictions of exercise. This study's strength is the several consensuses it could determine. The response rate of the participants limits this study was a limitation. Identifying the role of physical activity in the prevention and reduced likelihood of developing osteoporosis are especially important in young adulthood where bone density peak is reached. By encouraging employees to exercise, their likelihood of developing osteoporosis significantly decreases.

SESSION:2 EASE YOUR FLOW

Low Back Pain

Aasa, B., Berglund, L., Michaelson, P., Aasa, U. (2015). Individualized Low-Load Motor Control Exercises and Education Versus a High-Load Lifting Exercise and Education to Improve Activity, Pain Intensity, and Physical Performance in Patients With Low Back Pain: A Randomized Controlled Trial. *Journal of Orthopaedic and Sports Physical Therapy*. 45(2) 77-85. DOI:10.2519/jospt.2015.5021

Low back pain is one of the most common and costly musculoskeletal problems that can be reduced with regular exercise. It is important that fitness programs improve to meet the needs of clients and improve function. The author finds that determining the appropriate program for individuals with low back pain is difficult because there is a wide array of proposed interventions. It is reported that individuals with low back pain can participate in low-load or high-load motor control exercises to reduce low back pain, but the more effective intervention for activity and muscle control was the low-load motor control program. A weakness of this article is the population that was used only had nociceptive mechanical low back pain and therefore the results may not translate to other pain characteristics. A strength of this article was the use of education in combination with exercise to teach about pain physiology, proper posture, and proper movement patterns to encourage positive results. The findings in this article are useful to a fitness program designed to lower back pain intensity, improve activity levels and muscle control. A focus of the Exos project is to develop a plan for those with musculoskeletal injuries and chronic diseases. By using this article as a reference, we can better prescribe exercise to those with low back pain in this project.

Arthritis

Fransen, M., McConnell, S., Harmer, A.R., et al.,(2014). Exercise for osteoarthritis of the knee: a Cochrane systematic review. *British Journal of Sports Medicine*. doi: 10.1136/bjsports 2015-09542

Arthritis is a costly disorder that affects millions of Americans. It is important to consider the role physical activity and exercise have in arthritic pain to prevent further injuries and pain, consider the role of physical activity to reduce pain levels and improve function as well. The authors of this systemic review find that land-based therapeutic modalities can provide a benefit to arthritic pain and function if exercise is maintained. Similarly, to many of the benefits of exercise it was found that once exercise is discontinued, the benefits begin to decrease. In this study, it was found that there was some conflict between exercise having a moderate role in the decrease of pain or whether it had a significant benefit. In either case exercise was recommended for those with osteoarthritic pain. The strength of this review study was the large number of trials it considered. A weakness is the focus on osteoarthritic pain and the disregard of rheumatoid arthritis pain. The findings in this review are important to the Exos program. We can now recommend those with osteoarthritis to participate in structured physical activity to reduce pain and improve function. This could assist in our efforts to recruit more employees to participate in exercise.

SESSION 3: LIVE HAPPIER, HEALTHIER, LONGER

Sleep

Hartescu, I., Morgan, K., & Stevinson, C. (2015). Increased physical activity improves sleep and mood outcomes in inactive people with insomnia: a randomized controlled trial. *Journal Of Sleep Research*, 24(5), 526-534. <http://dx.doi.org/10.1111/jsr.12297>

Many adults suffer with insomnia (about 10% of the population), which is a chronic sleep condition that can result in difficulty falling asleep or staying asleep at night. This disturbance in sleep can lead to cognitive impairment, mood irritability, chronic fatigue, poor memory, lack of energy, and decreased quality of life. Hartescu et al studied the effects of physical activity in inactive individuals diagnosed with insomnia during a 6-month exercise intervention trial. The intervention group met current physical activity guideline by walking 30 minutes per day for at least 5 days of the week, totaling at least 150 minutes of moderate-intensity exercise while the control group did not meet physical activity guidelines. Insomnia levels and fatigue significantly decreased in the intervention group with no change in the control group. Furthermore, the intervention group showed an improvement in depression and anxiety levels while the control group did not. The strength of this study is that it is clinically significant and meaningful for application to the general population to improve sleep, mood, and physical health outcomes in inactive individuals. A weakness is that high-intensity physical activity has not been studied to determine if similar results are produced. This study can be used to treat insomnia and mood disturbances as opposed to pharmacological treatments which can be beneficial for large populations and improving cost-effectiveness.

Disease Prevention

de Rooij, B., van der Berg, J., van der Kallen, C., Schram, M., Savelberg, H., & Schaper, N. et al. (2016). Physical Activity and Sedentary Behavior in Metabolically Healthy versus Unhealthy Obese and Non-Obese Individuals - The Maastricht Study. *PLOS One*, 11(5), 1-12. <http://dx.doi.org/10.1371/journal.pone.0154358>

There is increasing evidence that links sedentary behavior to chronic health diseases such as obesity, type 2 diabetes, and metabolic syndrome. Metabolic syndrome includes insulin resistance, low levels of HDL cholesterol, dyslipidemia, and hypertension. The Maastricht Study compared activity levels between groups of metabolically healthy or unhealthy individuals who were either obese or non-obese. The results showed that the healthy metabolic groups were less sedentary and more physically active than the non-healthy metabolic groups regardless of if they were obese or non-obese. This suggests that individuals who are less physically active and more sedentary may have an increased risk of developing a metabolic syndrome despite obesity levels. A strength of this study is that the data is highly generalizable to real world situations— participants wore an accelerometer that tracked movement during normal daily activities. It is also very applicable to the general population because it represents individuals with and without disease as well as obese and non-obese individuals. A weakness of this study is that these results cannot determine causality; it only represents that a relationship exists between metabolic syndrome and physical inactivity. This study can be used to report the significance between increased sedentary time and increased risk of disease and to direct further research to study the causality of the relationship.

SESSION 3: LIVE HAPPIER, HEALTHIER, LONGER

Depression

Hallgren, M., Kraepelien, M., Ojehagen, A., Lindefors, N., Zeebari, Z., Kaldø, V., & Forsell, Y. (2015). Physical exercise and internet-based cognitive-behavioural therapy in the treatment of depression: randomised controlled trial. *The British Journal Of Psychiatry*, 207(3), 227-234.
<http://dx.doi.org/10.1192/bjp.bp.114.160101>

Many Americans suffer with some level of depression, and many often go undiagnosed or do not receive treatment. Treatment of depression including anti-depressive medication and cognitive-behavioral therapy lacks adherence and effectiveness in some patients, so alternative forms of interventions are needed. A study by Hallgren et al studied the effects of exercise treatment, internet-based cognitive behavioral therapy, and usual treatment on symptom improvement and self-rated work capacity in patients diagnosed with mild to moderate depression. The results showed a greater improvement in depressive symptoms and increased self-rated work capacity in both the exercise group and internet-based therapy group compared to the usual treatment group. A strength of this study is that exercise treatment and internet-based therapy treatment are widely accessible, low cost, low risk, and can treat large populations relatively easily. A weakness of this study is that adherence in the alternative methods groups was not ideal, and there were variations in response due to age and gender. The study was also performed in Sweden, so there may be environmental differences that would alter generalization to populations in America. These findings can be implemented in everyday settings in the future to improve mental health and work capacity in individuals suffering with depression.

Longevity

Arem, H., Moore, S., Patel, A., Hartge, P., Berrington de Gonzalez, A., & Visvanathan, K. et al. (2015). Leisure Time Physical Activity and Mortality. *JAMA Internal Medicine*, 175(6), 959.
<http://dx.doi.org/10.1001/jamainternmed.2015.0533>

The effects of physical activity on long-term health outcomes are important for aging populations. The result of regular physical activity is an effective strategy to provide sustainable health and longevity benefits. The current guidelines recommend at least 150 minutes of moderate-intensity exercise or 75 minutes of vigorous-intensity physical activity. A study by Arem et al compared the effects of varying amounts of physical activity among adult men and women to mortality rates. 661,137 men and women participated in this study that observed the amount of moderate to vigorous intensity physical activity and longevity following the study. The results showed that performing less than the minimum recommended amount of physical activity was associated with a higher mortality risk, and subjects who engaged in higher amounts of exercise had a lower risk of mortality, even at larger amounts greater than the recommended amount. A strength of this study is that the sample size was so large and the results showed significant increases in longevity in those who met physical activity guidelines compared to those who did not. A weakness is that there were variations in age, gender, risk factors, fitness levels, and other factors that may have influenced mortality. This study can be used to support the benefits of meeting physical activity guidelines in order to improve longevity.

SESSION 4: BETTER WITH A BUDDY

Community

Killingback, C., Tsofliou, F., & Clark, C. (2017). Older people's adherence to community-based group exercise programmes: a multiple-case study. BMC Public Health, 17, 115.
<http://doi.org/pitt.idm.oclc.org/10.1186/s12889-017-4049-6>

There is a gap in a literature with older people's adherence to community based exercise programs, therefore it provides insight on what factors lead people to maintaining physical activity levels. Participants were diving in three community based exercise programs and participated in focus groups, interviews, and documents pertaining to programming. Researchers concluded about five different insights that helped older people maintain physical activity level for a year or longer: relating to the individual, the instructor, program design, social features, and perceived benefits. A strength of this article is that it can be applied to multiple age groups, in that what they found that makes people continuing exercise are all relatable in the adult population, not just sixty and above. Another strength of is the way they obtained data. Since it was a case-study design, multiple interviews with researchers gave them clear insight on what is important to them in an exercise program. They also chose to only do research at notably successful programs. A weakness of the article is that there is little external validity. The sample represents older, white, English people, so what they value may be different than what a diverse group of Americans do.

Social Support

Rackow, P., Scholz, U., & Hornung, R. (2015). Received social support and exercising: An intervention study to test the enabling hypothesis. British journal of health psychology, 20(4), 763-776.

Social support in the context of exercise does not only relate to feelings of self-efficacy. Typically, when we see friends and family who are similar to us try an activity, we are more inclined to do it as well. This is not the only kind of social support that one can give and receive. Participants were instructed to find a new exercise companion when prompted through the online study and asked to complete a questionnaire in regards to planning and self-monitoring. A strength of this study was the external validity. This can be applied over many populations, and since it was an online intervention, it can be replicated fairly easily. Researchers found that actively seeking new exercise partners promoted received emotional and social support which directly effected action planning and self-monitoring. A weakness of the article is the duration of the study, it only lasted 8 weeks which is not very long for someone who is looking to form new habits. Also, they had a high drop out rate for participants.

SESSION 4: BETTER WITH A BUDDY

Environment

Bennett, D., Owen, T., & Bradley, D. (2017). The £ for lb. Challenge. Evaluation of a novel, workplace-based peer-led weight management programme, 2014–2016. *Public Health*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/28654812>.

Tackling obesity is of high health priority in the workplace. As a health promoting setting, the workplace can be associated with benefits such as decreased absenteeism and enhanced work-productivity. In this study, we examine a peer-led workplace-based weight loss program involving a charitable incentive. Some workers were volunteer peer champions that encouraged other employees to stick with the challenge. Other workers participated in a 12-week weight loss guide which incorporated dietary advice, physical activity, behavior change methods and weekly weight monitoring. Employers and/or participants pledged £1 to charity for every pound of weight lost. The completion rates were 71% in 2016 with a mean weight loss of 2.4 kg. Weight loss was incentivized by either the organization, participant or both pledging \$1 to a relevant charity for every 1 lb lost. The strength in this study showed positive engagement over a 3-year time frame. Weaknesses in the article did not measure weight loss after 12 weeks. With high levels of engagement, and successful collaboration between companies and employees. it is a workplace-based model with potential to expand.

Environment

Lara, A., Yancey, A. K., Tapia-Conye, R., Flores, Y., Kuri-Morales, P., Mistry, R., ... & McCarthy, W. J. (2008). Pausa para tu Salud: reduction of weight and waistlines by integrating exercise breaks into workplace organizational routine. *Preventing chronic disease*, 5(1), A12-A12.

Changing workplace culture to an exercise-friendly environment may be necessary to engage the sedentary work population. By adding in 10-minute exercise bout breaks, 335 office workers at the Mexican Ministry of Health were able to alter their work environment and change their body mass index and waist circumference in one year. A major strength of this workplace intervention was that they incorporated “push strategies” in effort to change socioculture environment, for example restricting the use of nearby parking spots encouraging those who are able-bodied to walk farther to work, and “pull strategies” such as outlining walking paths for employees. The company as a whole took a morning activity break where everyone was encouraged to stand up and dance to music or engage in light body weight exercises at their workstations. There were significant changes in multiple physiological measures for employees including blood pressure and body mass index reduction. A weakness of this study was that there was no control group measured who did not participate in the intervention. There was also be underlying selection bias for the participants who signed up to get involved.

SESSION 5: HUSTLE FOR THE MUSCLE

Goal-Setting

Strecher, V. J., Seijts, G. H., Kok, G. J., Latham, G. P., Glasgow, R., DeVellis, B., ... & Bulger, D. W. (1995). Goal setting as a strategy for health behavior change. *Health education quarterly*, 22(2), 190-200.

Goal setting in health behavior change and maintenance interventions aim to set benchmarks that can lead to higher performance when compared with no goal. Specific strategies for setting the utility of health-related goals has not been researched as much as it should be. The purpose of this article is to examine the mechanisms underlying behavior change and maintenance, examine the necessary conditions for effective goal setting, and offer recommendations for developing short and long-term goals. A strength of this article provides a lot of information regarding feedback techniques and examples for implementation while also being optimistic about the future and benefits of goal setting. A weakness of this article was that we did not follow the implementation of any goals suggested, as it was more of a theoretical approach to goal-setting. Another weakness was that there are not many controlled studies of goal setting in the health behavior area to draw large enough conclusions regarding its efficacy in the context. In all, we gather valuable information and support that goal setting can be beneficial in behavior change and maintenance interventions.

Avoid Burnout

Gerber, M., Brand, S., Elliot, C., Holsboer-Trachsler, E., Pühse, U., & Beck, J. (2013). Aerobic exercise training and burnout: a pilot study with male participants suffering from burnout. *BMC research notes*, 6(1), 78.

The term burnout is used to describe “a gradual depletion of energy combined with a loss of motivation and commitment after prolonged exposure to high occupational stress”. The purpose of this study was to evaluate whether aerobic exercise alleviates burnout severity and other parameters related to occupational stress and burnout. The results showed that an increase in aerobic exercise reduced overall perceived stress as well as symptoms of burnout and depression. A strength of this study was that it assessed the outcomes of a 12-week exercise training to generate hypotheses for future larger scale studies to generate more education on this topic. Another strength was that the magnitude of the effects was very large, revealing substantial changes in relevance for application to an even larger population. A weakness of this article was that it only evaluated a one-group, pre/post-test investigation with no control group to cross-compare. Future studies should include a controlled design using a larger population. Overall, this research offers promising results utilizing exercise intervention to help reverse or prevent occupational burnout.

SESSION 5: HUSTLE FOR THE MUSCLE

Technology

Modave, F., Bian, J., Leavitt, T., Bromwell, J., Harris III, C., & Vincent, H. (2015). Low quality of free coaching apps with respect to the American College of Sports Medicine guidelines: a review of current mobile apps. *JMIR mHealth and uHealth*, 3(3).

Over the past 10 years, there has been an increasing number of mobile apps that are being developed to facilitate physical activity, particularly for active people. The content of these apps was compared against the current guidelines and fitness principles established by the American College of Sports Medicine (ACSM). The results showed that nearly all the apps, although technically well designed, did not meet the basic recommendations of the ACSM for exercise prescription, and therefore, would not be suitable for beginning exercisers. A strength of this article was that there are a lot of phone applications that are able to be downloaded free of cost for anyone with an iPhone or Android phone. A weakness of this article was that none of the apps that were reviewed met all three components of the ACSM guidelines. Utilizing technology and phone applications can be the basis for setting and safely achieving fitness, body weight, and health goals.

Have Fun

Yim, J., & Graham, T. C. (2007, November). Using games to increase exercise motivation. In *Proceedings of the 2007 conference on Future Play* (pp. 166-173). ACM.

In recent years, there has been significant work in integrating physical activity into video games. One goal of this work has been to help motivate sedentary people to be more physically active. However, there has been little attempt to investigate what properties of exercise games will help motivate sedentary people to start and continue exercise programs. An underlying hypothesis of such games is that people will find it fun to exercise, and consequently will improve their physical fitness. The literature suggests that to successfully motivate people who currently do not exercise, games should address problems of poor exercise self-identity and low self-efficacy. A strength of this article was that it evaluated several aspects of fitness games that are very popular. A weakness of this research was that not everybody utilizes fitness game platforms, which does not evaluate that population of individuals. While adhering to these requirements will not guarantee a fun and engaging game, they will help address barriers to taking part in an exercise program.