

HEALTH AWARENESS: COMPONENTS OF FITNESS



Strength, Endurance, Flexibility and Coordination

Physical fitness is the cornerstone of physical and mental health; there is no other treatment known that is as effective at reducing the risk of all diseases. It's power starts with reducing the risk of first developing a disease, and continues on to slow it's progression, all the way through to lowering the risk of death. Injury rates are also tied to fitness, the fitter you are, the lower your risk of injury. This makes physical fitness a critical factor for quality of life and job performance.

In spite of all these benefits, getting and staying in shape is very challenging to many. It takes time and energy, and usually some money. It's uncomfortable, and is full of unrealistic expectations. So even though we know that it's good for us, our families and our workplace, many people do not to maintain their bodies. It takes some effort, but with this article you will better understand how to achieve your activity goals, and how to stick with a program that will transform the way you feel. You can make the choice to improve every aspect of your life at home and at work.

The components of fitness:

Strength/power: The more strength that you have, the lower the effort required to do a fixed amount of work. Because of this, strength is important for reducing fatigue and the risk of musculoskeletal and overuse injuries. Strength tends to be specific, so the exercise that you choose should be similar in the types of movements and speed of movements that you use at work.

You can build strength without lifting weights in a gym; any kind of powerful movement will generate improvements. For example, push-ups and pull-ups are great for upper body strength, while walking up a steep hill, lunges and step-ups will build lower body strength. These kinds of exercises can be adapted do be done at work by your machine or desk in 5-10 minute segments. Completing just a few every day won't require much time and will make a real difference to the way you feel and to your health and performance. To build strength, exercises should be done at least twice per week and long enough to tire out the muscle.

Endurance: Endurance is important because it keeps your heart, blood vessels, lungs and energy producing systems functioning well. Having a good level of endurance decreases fatigue and speeds up recovery, because your body will be able to cope with the work without running out of energy or building up waste products. Any exercise that raises your heart rate and breathing level is good for endurance. Hiking, cycling, jogging, swimming, paddling, dancing, cross-country skiing, snowshoeing and skating are all great activities for building endurance, as are sports like soccer, volleyball, basketball, ultimate and hockey. Raking leaves, chopping wood and shoveling the walk are chores that can also be used to get your heart and lungs working. To build endurance gradually, increase the length or intensity of your workouts, a little at a time. Choose an endurance activity at least three times per week.

Flexibility: In order to function well we need to be able to bend and reach, squat down and step up. When our range of movement is restricted, it makes it harder to do even basic tasks and can result in overloading muscles and joints that try to compensate. Stretching is the most commonly used technique to release stiff muscles, but massage and using a foam roller or lacrosse ball are also effective. Maintaining a healthy weight can also make a big difference; excess fat can get in the way of bending over. Stretching is most effective when muscle is warm, like right after exercise or after a warm bath or shower. If you want to stretch first thing in the morning, mid-day when a muscle feels tight, or when cold, gently move the muscle through its range of motion for a few minutes before doing your stretch.

Tired muscles tighten up; you can help them relax by contracting the muscle for three seconds and then relaxing *completely*. Do this three times before moving to the end of your range of motion to stretch, holding the new position for at least 30 seconds. Stretch problem areas at least twice/week, it only takes a few minutes.

Coordination/agility: The ability to move well and avoid injury requires coordination and agility. Good posture and a strong core will improve balance and your ability to be agile. Practicing correct technique for movements that are fatiguing or risky helps build nerve-muscle patterns that will help you make them correctly, even when your attention is on your work and not the movement itself. Include some of these kinds of movements in your daily pre-work warm up for maximum benefit. They can also be done in those small pockets of time during the day when you are waiting for something else to happen.

Facts:

- Every aspect of health can be improved with increased physical fitness.
- Fitness levels generally drop off with aging, starting as early as 20-30 years old and accelerating around age 45. Much of the decline can be prevented with physical activity.
- Maintaining a good level of lower body strength and agility is key for avoiding an increased risk of falls.
- The risk of diseases like diabetes, heart attack, cancer, depression and impotence are significantly lowered by getting 30 minutes of moderately vigorous exercise 5 days per week.
- The amount of exercise required to gain fitness depends on where you are now. If the activity doesn't tire you out, you won't build more strength or endurance. It doesn't have to be exhausting, but it does have to be just a bit outside your comfort zone.
- It's easier to stick with an exercise program if you enjoy the activity and if you share it with your family or friends. An exercise buddy can help maintain your motivation and share in the benefits of getting fit.
- The cost of *not*-exercising is so high that a pair of workout shoes or a gym membership will pay for itself in lower medical costs, fewer drugs, less time lost from work and improved productivity, not to mention improved mood, better sleep and more energy.
- Even the busiest of us can find 10 – 30 minutes for physical and mental health.
- Physical fitness is important for everyone; your choice to stay fit will help your family, your friends and your worksite.

What to expect:

- Hormone levels drop off in both men and women beginning in our 20-30's. This makes it harder to build and maintain strength, and contributes to weight gain with age. Regular exercise can reverse much of this effect.
- Moving to a desk job, having a family, and the responsibilities of caring for a home all decrease the amount of time that we spend moving. The decline in fitness most people blame on age is mostly due to lack of activity.
- It will feel uncomfortable to get out of breath at first. The muscles that move air in and out of your lungs and your heart need to develop the strength to do their jobs too.
- When you begin an exercise program you may experience some muscle soreness. Pain does not necessarily mean damage, it's important to distinguish between discomfort and injurious pain. If the pain is increasing, or lasts more than a few days, see your physician to make sure that nothing is wrong. Other signs of injury are swelling, bruising, redness and heat.
- It takes more effort to build fitness than to maintain it once you are fit. It took years to lose your fitness; it will take some time to regain it.
- Recovery times can be longer the older we get. Making sure to get enough rest and good nutrition can help speed up recovery.

What you can do:

- See your doctor before beginning a new exercise program to make sure that there are no underlying problems that can cause harm.
- Ask your partner, friend, child, parent or co-worker to work out with you. When you commit to someone else and schedule a regular time for exercise you will be more likely to show up.
- Choose a few activities that you like to do. Exercise does not have to take place in a gym. It's more important to do *something* on a regular basis, than exactly what you do.
- If you don't know how to get started exercising, make an appointment with a personal trainer and get them to give you some ideas that will work with your schedule and preferences. A Registered Kinesiologist or Certified Personal Trainer will have a good level of knowledge to help you, and they can teach you correct techniques that will help prevent injuries.
- Set a reasonable goal and smaller milestones. Make them public and plan to celebrate when you reach them.
- Follow the 10-minute rule. If you really feel tired you can cancel a workout, but only after you try for 10 minutes. Most of the time, once you actually get started you will feel better. The exercise increases your energy level and helps clear your head.

What Employers and Supervisors can do:

- Encourage your team to finish your morning safety meetings with a five-minute warm up to increase blood flow prior to beginning work. Always begin with setting correct posture.
- For workers that have desk jobs, suggest walking meetings or lunchtime physical activity breaks with group walks or other activities.

- For workers that have physically demanding jobs, a few five-minute stretch sessions during the day can help release the muscle tension that occurs with fatigue.
- Invite a kinesiologist to come and talk to your group about how to set up an exercise program, and/or to lead a good warm up and stretch session.
- Organize a fundraiser where workers get sponsors for the number of weekly physical activity hours. Have them chart their physical activity and find a group to compete against. Include a reward of some kind at the end of the event.
- Find out if your company will subsidize fitness expenses like a gym membership or a pair of skates.
- Find someone local who has recently improved their fitness level and invite them talk to your group about what a difference it makes to the way they feel.
- If your crew includes workers who are very overweight or obese consider inviting a nutritionist, public health nurse or kinesiologist in to speak about weight management.

More information:

Steps to Starting an Exercise Program

https://exerciseismedicine.org/assets/page_documents/8_StartingExProgram.pdf

Forest Safety News Articles:

- Exercise is Medicine
http://www.bcforestsafesafe.org/files/BCForestSafetyNewsLetter_2015December.pdf
- Knee Exercises
http://www.bcforestsafesafe.org/files/fsn_2018Dec_HealthandWellnessPg18-19.pdf
- 10 Minute In-Your-Machine Workout
http://www.bcforestsafesafe.org/files/fsn_2019June_HealthAndWellnessPg13-15.pdf
- Rolling to Release Stiffness
http://www.bcforestsafesafe.org/files/fsn_2019Oct_HealthAndWellness.pdf