

Move More, Sit Less

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Introduction

Think about your day today. How did you spend your time? Did you drive, walk, or ride your bike to work or school or other activities? When you were at work or at school, were you seated at a desk with a computer or other office device, or listening to an instructor while sitting in the classroom? Maybe you watched television, read, slept, or played video games all day. Or, maybe you spent your time moving and engaged in a variety of physical activities.

Chances are, if you are like most Kansans, you got in your car, drove to work or to run errands (sitting), were at your work station (sitting) most of the day, only getting up to use the restroom or to do some other task. Then you drove home, sat in your chair or recliner and watched television, spent time online, or read until bedtime.

Between work and leisure, the average Kansan spends more than 13 hours each day (more than 50 percent) in a low-energy activity — in other words, sitting.

This fact sheet explains why moving more is important for your health and well-being. It also includes easy ways to move more each day.

Why Do You Sit?

In the not-too-distant past, people spent more time doing activities that kept them fit and healthy. Jobs and housework required more physical labor every day. Innovations and inventions have created “time-saving,” “labor-saving,” and “smart” devices that require little human physical effort. Now, instead of raking leaves in the yard, a leaf blower can do the same thing with only a little physical input. Many jobs involve sitting at a desk and working on a computer. Leisure time is spent watching TV, movies or videos, and playing video games. Vacations are spent sampling different foods and traveling to far-off places. Instead of moving



Glossary

basal metabolic rate: The rate at which the body uses energy while at rest to keep vital functions going, such as breathing and keeping warm.

low energy sedentary activities: Any activity that does not expend any energy beyond your basal metabolic rate — sitting, sleeping.

metabolism: The chemical processes that occur within a living organism in order to maintain life.

nonexercise activity thermogenesis (NEAT): The energy expended for everything we do that is not sleeping, eating, or sports-like exercise. It includes the energy expended walking to work, typing, performing yard work, undertaking agricultural tasks and fidgeting.

thermic effect of food: The increase in metabolic rate after ingestion of a meal.

your bodies more in activity, Kansans are spending more time in a stationary position and becoming less healthy every year.

While you may spend more time in “purposeful exercising,” it may not be doing much good health-wise. Obesity researchers have found it doesn’t matter how much time is spent in exercise outside of sitting time, how fit a person is in general, or how genetically predisposed someone is to a long and happy life — sitting is an independent risk factor that can far outweigh other healthy efforts.

The Science Behind the “Sitting Disease”

The human body was made to move. From prehistoric times to the present day, the body is designed to be in motion: heart, lungs, muscles, and other organs all benefit and work best when not stationary. When active and moving, the body functions like a well-oiled machine. But when sitting for long periods of time, just the opposite occurs — the metabolism and muscle functions slow down and in some cases, even shut down and go into hibernation mode.

Electrical activity in the muscles declines almost as soon as the body sits down. Along with the drop in electrical activity, comes a decrease in enzyme levels that regulate blood cholesterol levels, allowing the “bad” (LDL) cholesterol levels to increase and the “good” cholesterol (HDL) to decrease, opening the door to a higher risk of cardiovascular problems.

When seated, the “second heart,” those deep muscles in the calves designed to pump blood back up to the heart, are impaired, slowing blood circulation and altering the body’s ability to regulate blood pressure. Since the metabolism slows, calories are burned at a much slower rate, resulting in a higher risk of weight gain and increasing the risk for diabetes. Inflammation, now suspected in causing many chronic diseases, also rises dramatically with too much sitting.

Sitting physically distorts the muscles, tendons, and ligaments, along with the tissues surrounding them, causing negative changes from low-back pain to headaches. Lastly, when seated, the muscles used to hold the body in an upright position flicker off and then “forget” how to work properly, leaving risk for injury when used to stand upright.

Experts agree the results of physical inactivity on the human body are specific and distinct from exercise; too much sitting is not the same as too little exercise. In other words, 45 minutes of exercise each day cannot offset 10 hours of sitting.

Sitting Is Harmful in Many Ways

Studies show that low-energy sedentary activities, such as sitting, worsen anxiety and depression in those who are already susceptible. The pace and demands of the modern work and home life creates a stage for a flood of stress hormones and may cause not only disturbances in sleep patterns, but also motivation and overall well-being. Because sitting is generally done in front of some type of screen — either computer, smartphone, tablet, or television — experts believe the combination of excess sitting and too much screen time contributes to a disconnect from others, increased psychological distress, and sleeping difficulties, especially for those who spend more than six hours of their day seated.

The sedentary lifestyle has contributed greatly to the overall increase in obesity rates for the last 10 years in the state: Kansas now ranks as the 13th heaviest state in the United States. Along with this new health ranking, the rise of diabetes and other weight-related disorders has increased alarmingly. The simple act of getting up out of the chair, for a few minutes every hour, can help fight “sitting disease.”

Introduction of NEAT

NEAT is short for an essential part of the body’s calorie burning metabolism, known as nonexercise activity thermogenesis (NEAT).

Exercise is time spent for the sake of developing and maintaining physical fitness; NEAT is all the other movements an individual does in daily life. It’s the calories used walking to lunch, running errands, climbing the stairs, folding the laundry, even fidgeting or chewing gum. It’s not going to the gym or taking an aerobics class, it’s the energy burned just by living — the movements large and small made throughout the day.

Think about how many “time-saving” devices are used today — TV remotes, automatic garage door openers, or app-programmed home thermostats — life is almost on auto-pilot. NEAT activities have





declined with each new labor-saving tool, leading to the reduction of calories burned by the average Kansan by 1,500 to 2,000 calories a day.

Much of the population have jobs where the entire work time is spent sitting, and even though no physical work is done, the mental labor and stress leave workers exhausted at the end of the day.

It's time to make a fundamental lifestyle change and add some NEAT to it. A NEAT life filled with vibrant movements infused throughout the day can add up to some major changes in health and outlook!

Motion is the Key

Not another quick fix or diet plan, using NEAT is all about being more active, using more energy based on the body's design and how it's meant to be used. Dr. James Levine, a lead authority on preventing and treating the global obesity epidemic, notes people can change their lifestyles without sacrificing the modern way of life, giving up the TV remote, cell phone, or breaking a sweat. Moving more and moving more often is the solution.

Take a Stand Against Sedentary Living

Each individual's body uses energy at a different rate. Sixty percent of energy consumed is used by the basal metabolic rate (BMR), calories the body uses to conduct all the processes for life. Another way the body burns calories is the thermic effect of food — digestion of calories consumed; however, it only counts for 10 percent of the metabolic rate without much variance.

The final way to expend calories is through movement — both purposeful exercise and NEAT. All these movements account for about one third of the calories burned every day. People who exercised 3 to 5 days a week burned approximately 100 calories each time, or a total of 500 per week. A reduction of 3,500 calories is needed to lose one pound, so it will take 7 weeks to lose just 1 pound!

While incorporating purposeful exercise into life is important, it's more important to remember every little move made is instrumental to calorie burning.

Sitting shuts down calorie burning, muscular activity, and enzymatic activities — think of it as the hibernation mode. The act of standing burns three times as many calories as sitting. Any little movement on top of that creates an even greater metabolic spike.

NEAT living is about breaking old habits and creating new ones. The goal is to try and repeat the behaviors for 21 days in a row. Continuing the new behaviors for that period of time cements the new habit. The goal is to fit NEAT activities into life, so they become a new lifestyle.

Work Out at Work

NEAT activities will fit seamlessly in a regular part of your work day. Put move more and sit less at the top of the daily “to-do” list, and look for easy ways to add physical activity. Choose one or two of these activities to easily incorporate:

1. Park farther from the entrance to the building or office.
2. Take the stairs instead of the elevator.
3. Instead of sending an email, go to someone's office to meet face-to-face.
4. Stand up and move around when talking on the phone.
5. Whenever possible, stand up instead of sitting down.
6. Take a longer route to the restroom or use a restroom on a different floor.
7. Every 30 minutes, stand up and stretch.
8. Every hour, stand up and walk around for 5 minutes.
9. If possible, walk or bike to work or to lunch.

10. Use a standing, adjustable desk or treadmill desk.
11. Move the trash cans so workers have to get up and move to them.
12. Move the printer to another room, so workers have to stand up and walk over to it each time it's used.
13. Rearrange items in the office so workers must move farther away to get needed items.
14. Take regular standing and movement breaks when attending conferences or meetings. If you are the planner, build movement breaks into the schedule.

Brief walking breaks give workers opportunity to improve the ability to deal with stress and make better decisions, according to Mental Health America, a website dedicated to developing good mental health habits. The American Association of Psychological Science cites a research study of government workers who moved the most often throughout their day reported greater happiness, less fatigue and considerably less craving for food. Feelings of vigor also tended to increase throughout the day when frequent breaks were taken.

NEAT at Home

Staying active is key to increase NEAT activities throughout the day. Make it a point to get up and move every 30 minutes if seated. Be inefficient! Move things around in the home to make more movement needed to get things done. Here are some more ideas:

1. Ditch the remote — get up to change the channel on the television.
2. When it's commercial time, get up and walk around or better yet, do stretches or use hand weights and do a few repetitions.
3. Stand while folding clothes, washing the dog, or talking on the phone. Hand-wash dishes instead of using a dishwasher.
4. Watch one less TV program a week and do something active instead.



5. Plant a garden — weeding, planting, digging, and lawn care all add to NEAT activity. Use a push mower instead of a riding one.
6. Walk to do errands or to talk with a neighbor, rather than driving or picking up the phone.
7. Hang clothes out to dry on a clothes line.
8. Stand to read the newspaper or online articles.
9. Plan regular breaks on car trips to get out and walk.
10. Use a pedometer or personal fitness device to track daily steps, set a step goal each day, or set reminders to take a fitness break.
11. If possible, go to a different floor of your home to use the bathroom.
12. Schedule a 10-minute morning and afternoon walking break in your day.



Living the Best Life

The brain is a muscle and it, too, suffers from lack of movement; depending on strong blood flow, good oxygenation and optimal glucose metabolism to work properly. Too much sitting is linked to reduced mental clarity and focus, and feelings of increased stress, as well as many chronic diseases and obesity. Take a stand to live the best life by seeking opportunities to incorporate NEAT behaviors in each day: reconsider free time activities — instead of parking in front of the TV or computer screen, choose activities to get up, get out, and get moving!

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