



FITNESS

One minute at a time

damage

DISEASE

burn less fat and blood flows more sluggishly during a long sit, fatty acids to more easily clog the heart. Prolonged sitting has been linked to high blood pressure and elevated cholesterol, and people with the most sedentary time are more than twice as likely to have cardiovascular disease than those with the least.

PRODUCTIVE PANCREAS

The pancreas produces insulin, a hormone that carries glucose to cells for energy. But cells in idle muscles don't respond as readily to insulin, so the pancreas produces more and more, which can lead to diabetes and other conditions. A 2011 study found a decline in insulin response after just one day of prolonged sitting.

CANCER

Researchers have linked sitting to a greater risk for breast, prostate, and endometrial cancers. The mechanism is unclear, but one theory is that prolonged sitting encourages cell growth. Another theory is that regular movement boosts the production of antioxidants that kill cell-damaging free radicals.

Spine degeneration

Core muscles

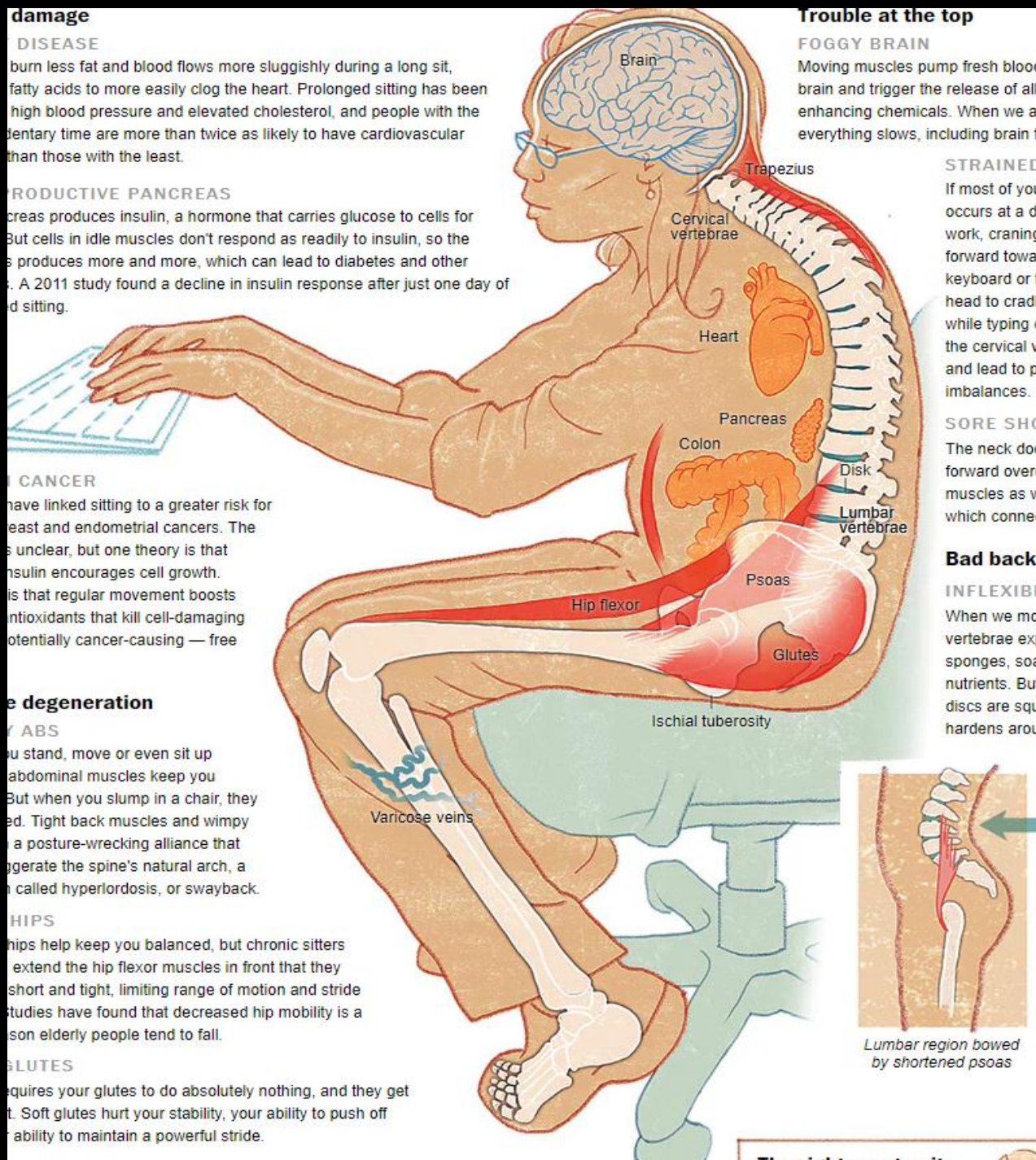
When you stand, move or even sit up, your core abdominal muscles keep you balanced. But when you slump in a chair, they relax. Tight back muscles and wimpy core muscles form a posture-wrecking alliance that exaggerate the spine's natural arch, a condition called hyperlordosis, or swayback.

HIPS

Hips help keep you balanced, but chronic sitters shorten the hip flexor muscles in front that they need to be short and tight, limiting range of motion and stride length. Studies have found that decreased hip mobility is a common problem among elderly people tend to fall.

GLUTES

Walking requires your glutes to do absolutely nothing, and they get weaker. Soft glutes hurt your stability, your ability to push off with your feet, and your ability to maintain a powerful stride.



Trouble at the top

FOGGY BRAIN

Moving muscles pump fresh blood to the brain and trigger the release of all sorts of neuro-enhancing chemicals. When we are sedentary, everything slows, including brain function.

STRAINED NECK

If most of your work occurs at a desk, you may find yourself craning your neck forward toward the keyboard or the monitor. This can lead to tension headaches while typing or looking at the screen. The cervical vertebrae can become strained and lead to posture imbalances.

SORE SHOULDERS

The neck does most of the work of craning forward over the desk. The muscles as well as the vertebrae which connect the neck to the shoulders can become sore.

Bad back

INFLEXIBLE SPINE

When we move, the vertebrae expand like sponges, soaking up nutrients. But when we sit, the discs are squashed and harden around the edges.



Lumbar region bowed by shortened psoas

Washington Post
January 20, 2014

ORGAN DAMAGE

- Blood flow is sluggish allowing fatty acids to clog the heart
- Prolonged sitting has been linked to high blood pressure
- Elevated cholesterol
- Greater risk of colon cancer
- Greater risk of diabetes
- Muscle degeneration
- Foggy Brain – lack of oxygen flow
- Strained neck
- Bad back

Sedentary Behaviors Increase Risk of Cardiovascular Disease Mortality in Men

[Tatiana Y. Warren](#), MS,¹ [Vaughn Barry](#), MS,¹ [Steven P. Hooker](#), PhD,^{1,2} [Xuemei Sui](#), MD,¹ [Timothy S. Church](#), MD, PhD,³ and [Steven N. Blair](#), PED^{1,4}

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Results

377 CVD deaths occurred during 21 years of follow-up. After age-adjustment, time riding in a car and combined time spent in these two sedentary behaviors were positively (p trend $<.001$) associated with CVD death. Men who reported >10 hrs/wk riding in a car or >23 hr/wk of combined sedentary behavior had 82% and 64% greater risk of dying from CVD than those who reported <4 hr/wk or <11 hr/wk, respectively. The pattern of the association did not materially change after multivariate adjustment. Regardless of the amount of sedentary activity reported by these men, being older, normal weight, normotensive, and physically active was associated with a reduced risk of CVD death.

American College of Sports Medicine position stand. Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults: guidance for prescribing exercise.

[Garber CE](#), [Blissmer B](#), [Deschenes MR](#), [Franklin BA](#), [Lamonte MJ](#), [Lee IM](#), [Nieman DC](#), [Swain DP](#); [American College of Sports Medicine](#).

ACSM Position Statement on Exercise

.... The scientific evidence demonstrating the beneficial effect of exercise is indisputable, and the benefits of exercise far outweigh the risks in most adults. A program of regular exercise that includes cardiorespiratory, resistance, flexibility and neuromotor exercise training beyond activities of daily living to improve and maintain physical fitness and health is essential for most adults. The ASCM recommends that most adults engage in moderate-intensity cardiorespiratory exercise training for at least 30 minutes 5 to 7 days of the week for a total of at least 150 minutes a week



BUTTTTTTTT!!!!!!!

I DON'T HAVE TIME TO EXERCISE!

I have a solution!

SOME PEOPLE ARE OVERWHELMED BY THE THOUGHT OF JOINING A GYM AND WORKING OUT FOR 30 MINUTES!

Some people think of fitness as all or nothing

- > The people who sell fitness programs on TV are the biggest deterrent for the average person!



FITNESS ONE MINUTE AT A TIME

Instead of big blocks of time – break your WELNESS into little one minute bites.

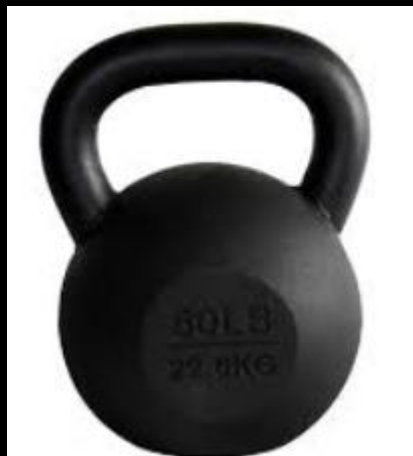
You can do anything for one minute!

Sit on a Fitness Ball



Sitting on something wobbly such as an exercise ball or even a backless stool to force your core muscles to work. Sit up straight and keep your feet flat on the floor in front of you so they support about a quarter of your weight.

EQUIPMENT TO LEAVE UNDER YOUR DESK



NOW FOR THE FUN!



Dumbbells

- Triceps
- Biceps
- Sitting Fly's
- Shoulder rolls
- Lateral raises
- Lateral side bends
- Rear Lateral Raises

RESISTANCE BANDS OR TUBES

- Overhead Press
- Chest Pull
- Lat pull down
- Leg press
- Bicep curls
- Triceps

POWER BANDS



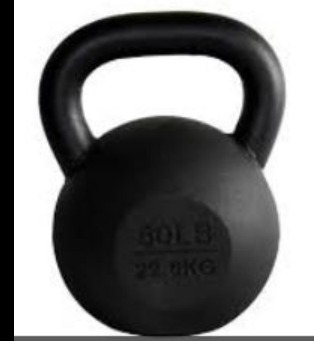
- Behind the back pulses
- Overhead pulses
- Outer thigh

- Standing: Hamstring curls
- Walking: Lateral Walks with band above ankles
- Standing: Outer thigh lifts



SWISS BALL

- Inner Thigh squeeze
- Squeeze between palms
- Squeeze Release hand exercise
- Use your hand to Roll on desk
- Arm circles



KETTLE BELL

- Curl/Press
- Squats
- Swings
- One arm row
- Halo
- Hip Halo

NO EQUIPMENT

- Squats at your desk
- Push ups on the wall
- Wall squat
- Raise up on toes
- Tap toes
- Wiggle fingers
- Boxer punches
- Foot circles
- Arm circles
- Sitting Knee to chest (abs)

CARDIO

- Jog at your desk – you can do this sitting or standing
- Jumping Jack – you can do this sitting or standing
- Skip down the hall (come on! Its fun!)
- March down the hall (Pick up your knees!)
- Clapping wall push ups
- Walk the stairs
- Walk around your building

DON'T FORGET TO STRETCH!

- Use the band to pull your toe toward you – calf stretch
- Clasp your hands behind you pull up.
- Cat – Cow – back stretch
- Shoulder Stretch – cross arms in front pull one arm over
- Wrist Stretch
- Hand and finger stretch
- Reach for the sky
- Trunk twist
- Standing thigh Stretch

IF YOU WORK 8 HOURS A DAY THAT'S
 $8 \times 60 = 480$ MINUTES PER DAY

That's a lot of minutes! You only need 30
of them for fitness.

1 minute of exercise every 15 minutes
4 minutes per hour = 32 minutes of exercise

CARDIORESPIRATORY EXERCISE

ACSM – recommendation

Moderate Intensity for 30 minutes

Vigorous Intensity for 20 minutes

3 days a week

ACSM GUIDELINES

Good News!

Adults who are unable or unwilling to meet the exercise targets outlined can still benefit from engaging in amounts of exercise less than recommended. In addition to exercising regularly, there are health benefits in concurrently reducing total time engaged in sedentary pursuits and also by interspersing frequent, short bouts of standing and physical activity between periods of sedentary activity.

<https://www.ncbi.nlm.nih.gov/pubmed/21694556>