Rīgas Stradiņa universitāte

Finansē Eiropas Savienība NextGenerationEU

2027 Nacionālais attīstības plāns

Ieskats pētījumā

PAR MAZKUSTĪGUMA MAZINĀŠANU BIROJA DARBINIEKIEM

Jeļena Reste, *Dr. med.*

asociētā profesore, vad. pētniece

RSU Aroda un vides medicīnas katedras vadītāja

Aroda un vides medicīnas katedra

Darba drošības un vides veselības institūts

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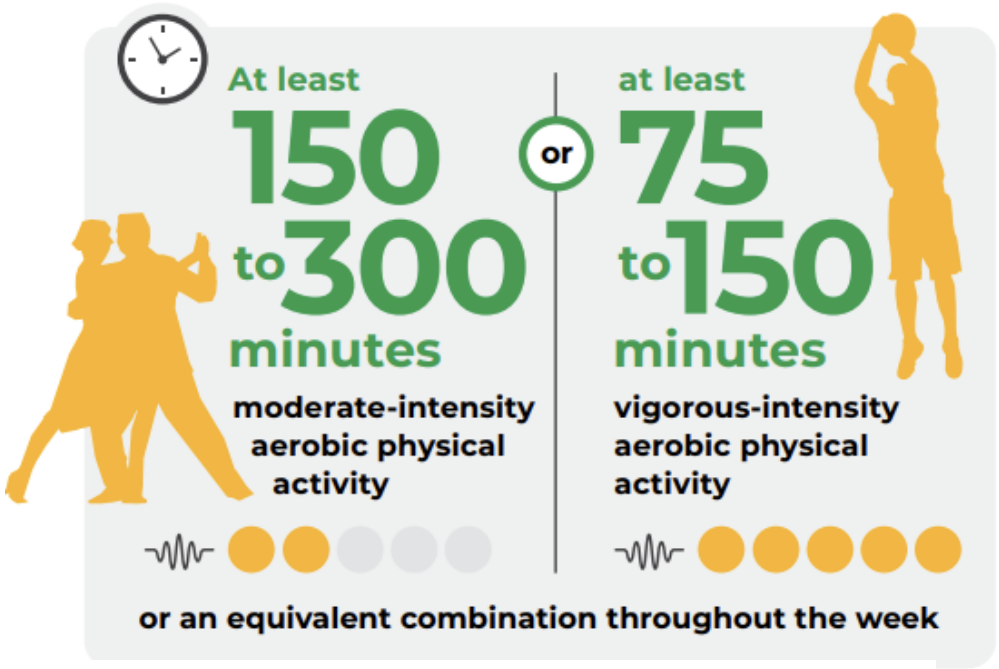
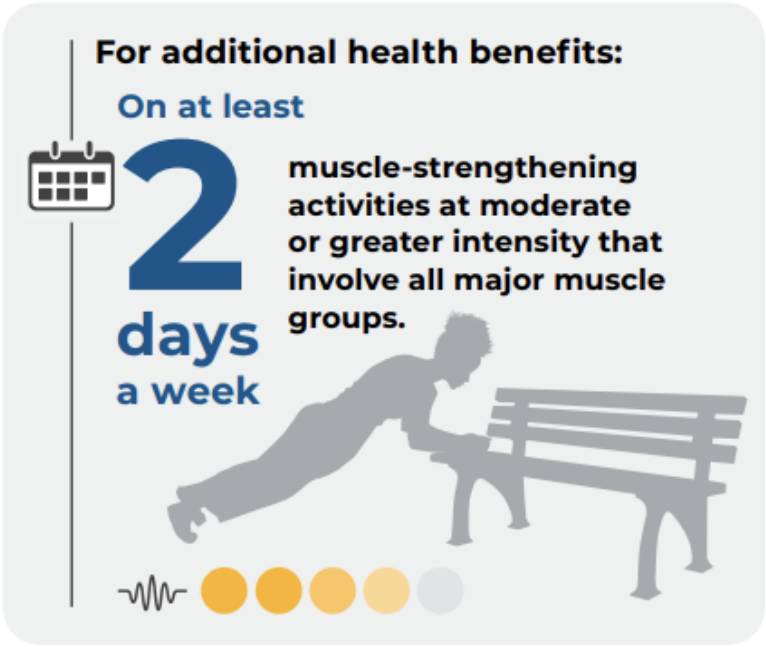
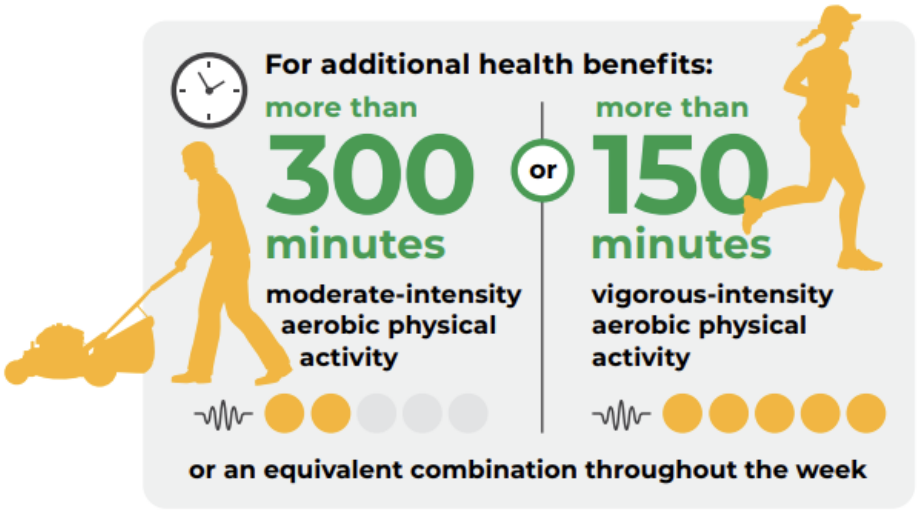
LAĀB sēde, 20.02.2026.

Pasaules Veselības organizācija rekomendē pieaugušajiem 18-64 gadu vecumā







WHO guidelines on physical activity and sedentary behaviour: at a glance (2021)
https://www.who.int/europe/publications/i/item/9789240014886


ARE YOU SITTING TOO MUCH?
1–2 hrs.
1–2 hrs.
1–2 hrs.
4–6 hrs.
1–3 hrs.
ACTIVDOCTORS
Is Sitting really the New Smoking?

Sēdēšana = mūsdienu smēķēšana

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Don't just sit there!

We know sitting too much is bad, and most of us intuitively feel a little guilty after a long TV binge. But what exactly goes wrong in our bodies when we park ourselves for nearly eight hours per day, the average for a U.S. adult? Many things, say four experts, who detailed a chain of problems from head to toe.

REPORTING BY BONNIE BERKOWITZ; GRAPHIC BY PATTERSON CLARK

ORGAN DAMAGE

Heart disease

Muscles burn less fat and blood flows more sluggishly during a long sit, allowing 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.

Overproductive 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 diseases. A 2011 study found a decline in insulin response after just one day of prolonged sitting.

Colon cancer

Studies have linked sitting to a greater risk for colon, breast and endometrial cancers. The reason is unclear, but one theory is that excess insulin encourages cell growth. Another is that regular movement boosts natural antioxidants that kill cell-damaging — and potentially cancer-causing — free radicals.

MUSCLE DEGENERATION

Mushy abs

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

Tight hips

Flexible hips help keep you balanced, but chronic sitters so rarely extend the hip flexor muscles in front that they become short and tight, limiting range of motion and stride length. Studies have found that decreased hip mobility is a main reason elderly people tend to fall.

Limp glutes

Sitting requires your glutes to do absolutely nothing, and they get used to it. Soft glutes hurt your stability, your ability to push off and your ability to maintain a powerful stride.

LEG DISORDERS

Poor circulation in legs

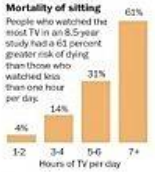
Sitting for long periods of time slows blood circulation, which causes fluid to pool in the legs. Problems range from swollen ankles and varicose veins to dangerous blood clots called deep vein thrombosis (DVT).

Soft bones

Weight-bearing activities such as walking and running stimulate hip and lower-body bones to grow thicker, denser and stronger. Scientists partially attribute the recent surge in cases of osteoporosis to lack of activity.

Mortality of sitting

People who watched the most TV in an 8.5-year study had a 61 percent greater risk of dying than those who watched less than one hour per day.



TROUBLE AT THE TOP

Foggy brain

Moving muscles pump fresh blood and oxygen through the brain and trigger the release of all sorts of brain- and mood-enhancing chemicals. When we are sedentary for a long time, everything slows, including brain function.

Strained neck

If most of your sitting occurs at a desk at work, craning your neck forward toward a keyboard or tilting your head to cradle a phone while typing can strain the cervical vertebrae and lead to permanent imbalances.

Proper alignment of cervical vertebrae

Sore shoulders and back

The neck doesn't slouch alone. Slumping forward overextends the shoulder and back muscles as well, particularly the trapezius, which connects the neck and shoulders.

BAD BACK

Inflexible spine

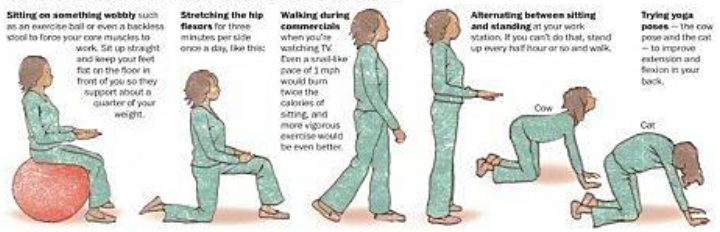
Spines that don't move become inflexible and susceptible to damage in mundane activities, such as when you reach for a coffee cup or bend to tie a shoe. When we move around, soft disks between vertebrae expand and contract like sponges, soaking up fresh blood and nutrients. When we sit for a long time, disks are squished unevenly and lose sponginess. Collagen hardens around supporting tendons and ligaments.

Disk damage

People who sit more are at greater risk for herniated lumbar disks. A muscle called the psoas travels through the abdominal cavity and, when it tightens, pulls the upper lumbar spine forward. Upper-body weight rests entirely on the ischeal tuberosity (sitting bones) instead of being distributed along the arch of the spine.

Lumbar region bowed by shortened psoas

So what can we do? The experts recommend . . .



The experts

Scientists interviewed for this report:

James A. Levine, inventor of the treadmill desk and director of Obesity Solutions at Mayo Clinic and Arizona State University.

Charles E. Matthews, National Cancer Institute investigator and author of several studies on sedentary behavior.

Joy Dicharry, director of the REP Biomechanics Lab in Bend, Ore., and author of "Anatomy for Runners."

Tal Arnaoy, biomechanist at Barry University's Department of Sport and Exercise Sciences.

Additional sources: "Amount of time spent in sedentary behaviors and cause-specific mortality in U.S. adults," by Charles E. Matthews, et al., of the National Cancer Institute; "Sedentary behavior and cardiovascular disease: A review of prospective studies," by Eon S. Ford and Carl J. Caspersen of the Centers for Disease Control and Prevention, Mayo Clinic.

https://tengritagh.org/2017/06/18/four-scientists-explain-what-sitting-too-long-does-to-your-body/

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Kāpēc nepieciešama iejaukšanās darba vietā

- Darbs ir vieta, kur cilvēks pavada vismaz trešdaļu diennakts laika.
- Tieši tur iespējams efektīvi ieviest veselību veicinošus pasākumus.
- Fiziskās aktivitātes darba laikā samazina slimību risku un uzlabo pašsajūtu.
- Darba devējam – mazāk kavējumu, lielāka produktivitāte un labāks kolektīva klimats.

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Projekts "RSU iekšējā un RSU ar LSPA ārējā konsolidācija" (Nr.5.2.1.1.i.0/2/24/I/CFLA/005) tiek finansēts Eiropas Savienības Atveseļošanas un noturības mehānisma plāna un valsts budžeta ietvaros

Pētījumus par mazkustīgu uzvedību darba laikā esam sākuši COVID-19 pandēmijas laikā

Journal of Public Health
https://doi.org/10.1007/s10389-026-02710-6

ORIGINAL ARTICLE

Motives for interrupting sedentary behaviour among office workers in onsite, remote, and hybrid work models

Māra Jaudzeme[1] · Jekaterina Jeņenkova[1] · Ance Eimane[1] · Ilona Pavlovska[2] · Jeļena Reste[2,3]

Received: 7 November 2025 / Accepted: 29 January 2026

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Rīgas Stradiņa universitātes
un
Latvijas Sporta pedagoģijas akadēmijas
konsolidācijas grants

“Multidisciplināra pieeja noturīgu fizisko aktivitāšu paradumu izveidei nodarbinātajiem ar mazkustīgu darba veidu”

Nr. RSU/LSPA-PA-2024/1-0013

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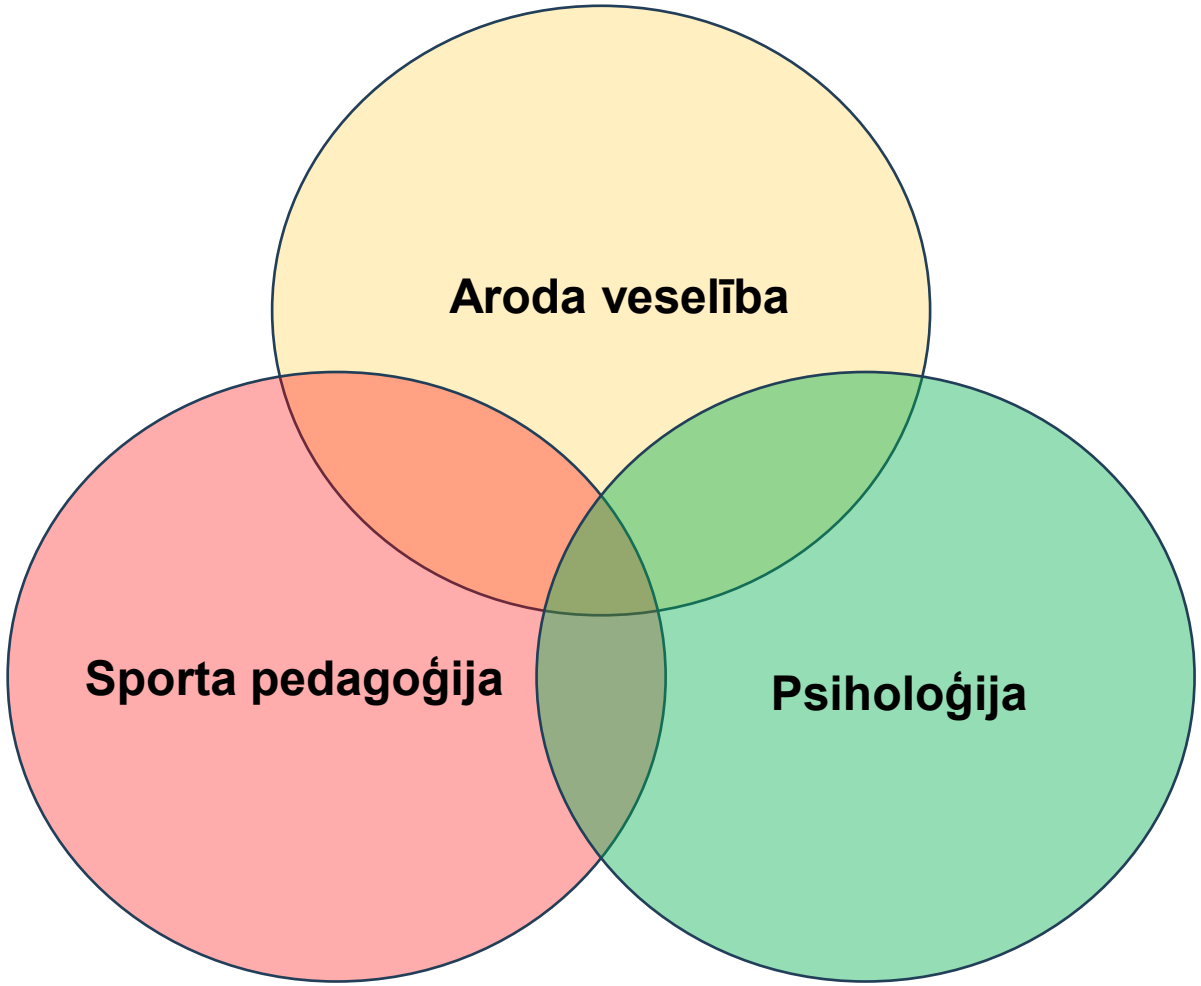
Multidisciplināra pieeja mazkustīguma mazināšanā



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RSU

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Pētījuma mērķis:

Uzlabot un izvērtēt **multidisciplināras pieejas** efektivitāti, lai veidotu **ilgtermiņa** paradumu – regulāru kustību ieradumu sēdoša darba darbiniekiem.

Apvienoti trīs zinātnes nozares (aroda medicīna, psiholoģija un sporta pedagoģija):

- Aroda intervences izstrādāja un vada arodveselības speciālisti (RSU Aroda un vides medicīnas katedra un Darba drošības un vides veselības institūts)
- Psiholoģiskas intervences RSU profesionāli psihologi
- RSU Latvijas Sporta pedagoģijas akadēmijas sporta pedagoģijas speciālisti

Mērķa grupa – biroja darbinieki ar ikdienas darbu pie datora

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Pētījuma gaita

6 uzņēmumi (>118 darbinieki)
+ kontroles grupas brīvprātīgie (49)

Pirmie mērījumi
(anketēšana + 6 minūšu iešanas tests + sensori)

- Psiholoģiskas
- Fiziskas
- Aroda
- Kombinētas intervences

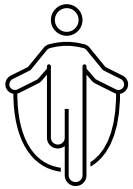
Intervences
(3 nedēļas)

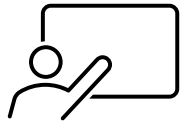
Atbalsta vēstules
(3 mēneši)

Anketēšana, 6-minūšu iešanas tests, sensori

Atkārtoti mērījumi
(ik pēc 3 mēnešiem)

Gala rezultāti

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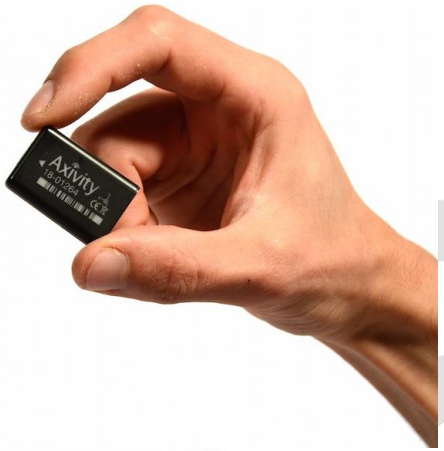
Novērtēšana un rezultātu kontrole

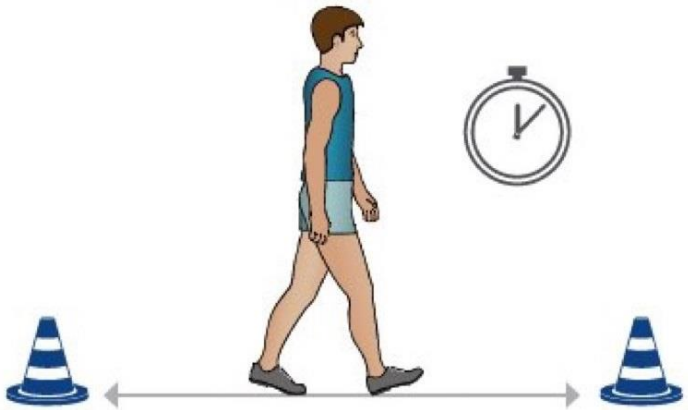


Mērījumi veikti pirms un pēc iejaukšanās:

- ✓ **Anketas un aptaujas** – subjektīvs pašvērtējums par veselību un motivāciju.
- ✓ **Objektīvie rādītāji** – kustību sensori un/vai 6 minūšu iešanas tests.
- ✓ Notiek regulāra uzraudzība pēc 3, 6, 9, un 12 mēnešiem.
- ✓ Tiek pētīta paradumu noturība un ilgtermiņa ietekme uz veselību.

Sagaidāmie ieguvumi

- Uzlabota darbinieku pašsajūta.
- Labāka fiziskā forma un sirds-asinsvadu veselība.
- Ilgtspējīgi kustību paradumi un lielāka darba produktivitāte.
- Ieguvēji – gan darbinieki, gan darba devēji, gan sabiedrība kopumā.



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Attēli: https://thoracicandsleep.com.au/wp-content/uploads/2022/11/IDEA-LG-COPD-Monitoring-Model-Offers-Potential-Alternative-to-6-Minute-Walk-Test-image-1.jpg
https://axivity.com/img/products/ax3_hand_1.jpeg

PALDIES PAR UZMANĪBU