

# Workplace Wellness

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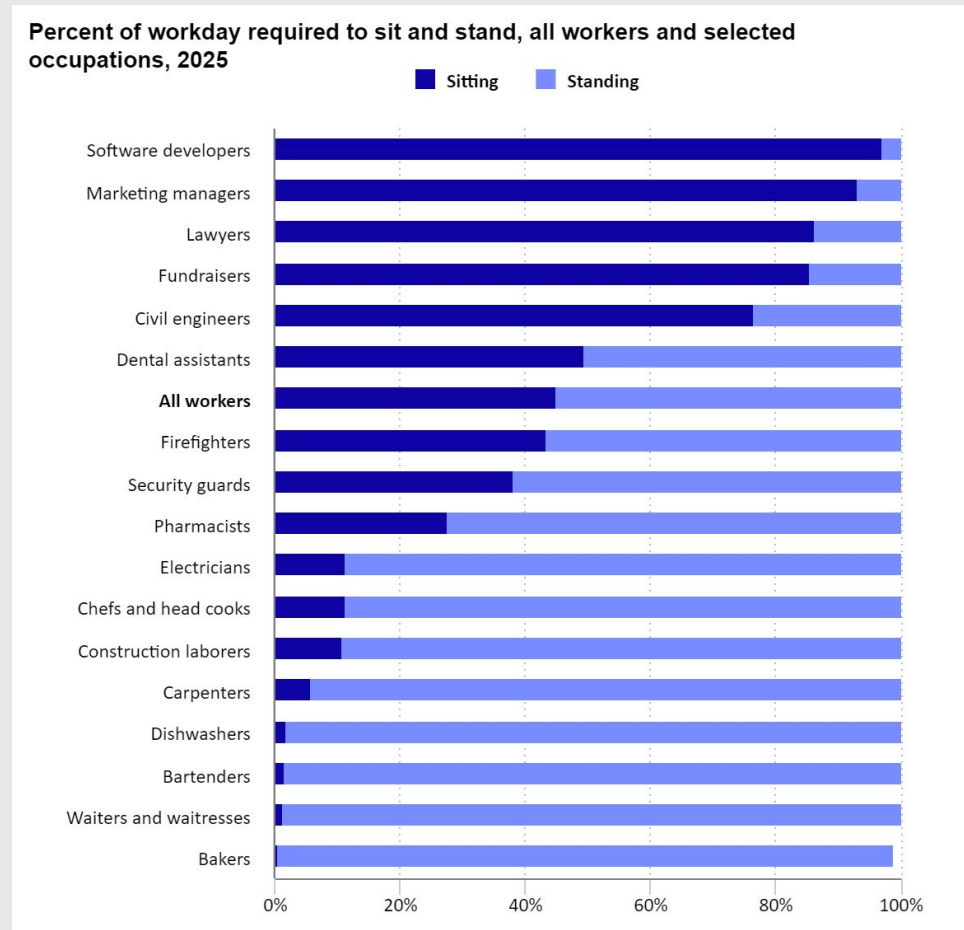


# Objectives

- Review the risks of leading a sedentary/inactive lifestyle
- Review general activity recommendations and associated benefits of physical activity
- Discuss ways to incorporate physical activity in to day-to-day life
- Examine ergonomic principles, with increased focus on computer workstations and ways set-up your desk to reduce potential injury
- Review the importance of mental health and impact of burnout

# Introduction

- Across all civilian jobs, workers spend an average of about 45% of their workday sitting
- Physically demanding occupations now make up less than 20% of the US workforce, down from nearly 50% of jobs in 1960
- More than 80% of jobs in the US involve mostly sedentary activities
  - 83% increase in physically inactive jobs since 1950
  - Occupation dependent
    - Software developers: 97% of their day sitting
    - Firefighters: 43% of their day sitting
    - Waiters, Bartenders: 1-2% of their day sitting



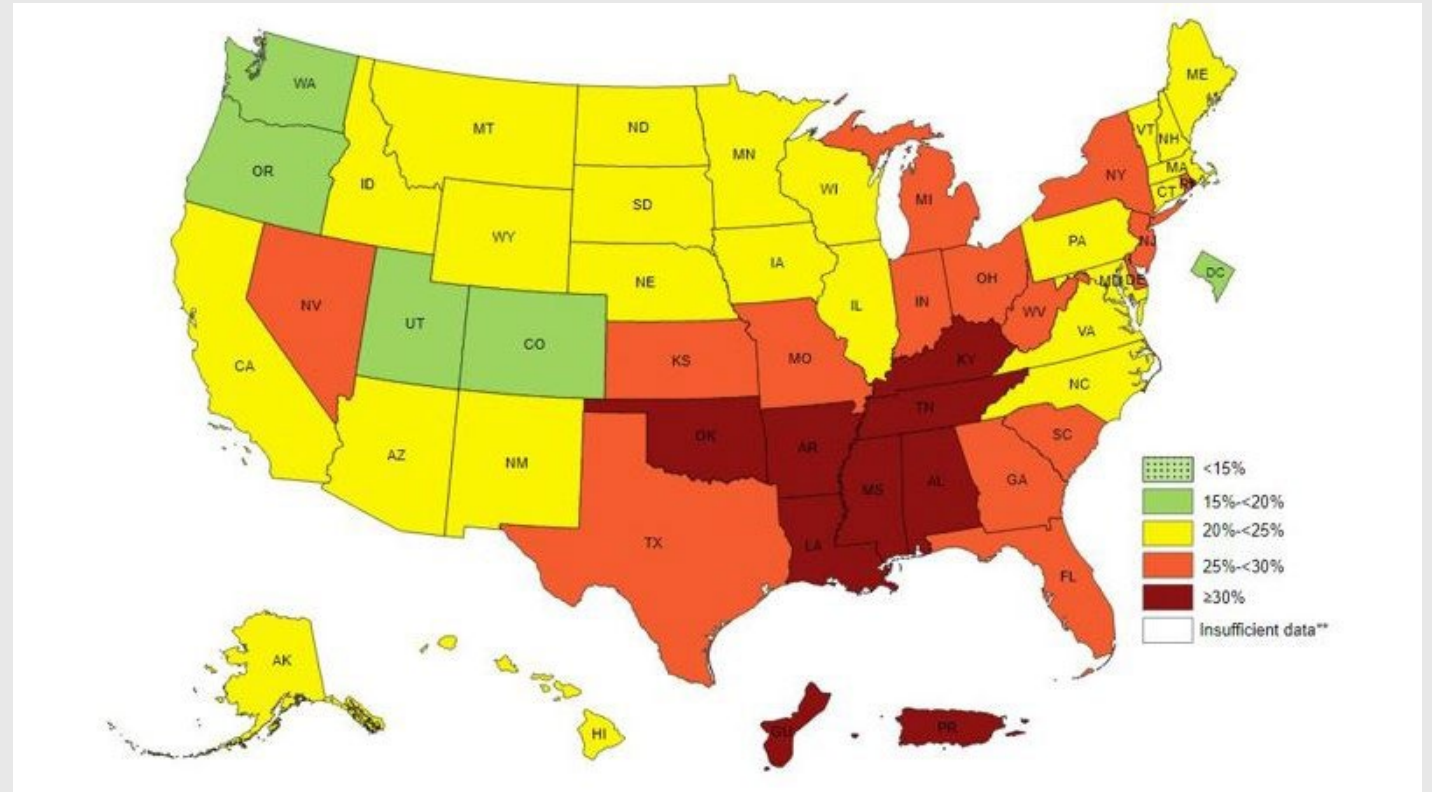
Source: US Bureau of Labor Statistics

# Introduction

- Daily work commutes are becoming progressively longer
  - Average one-way commute of 27 min in 2024
  - Commutes 75 miles or longer each way increased by 32% between 2019 and 2024
- Study in Latin America found that every extra 10 minutes spent stuck in a traffic jam increased a commuter's depression risk by 0.8% (Wang et al., 2019)
- American study in 2019 found that just a 1% increase in commuting time measurably increased a driver's stress and fatigue, as well as the sadness experienced during child-care activities (Gimenez-Nadal et al., 2019)

# Physical Inactivity Outside of Work

- American adults spend on average 50% of their awake time at their jobs
- From 2017 through 2020, physical inactivity prevalence across the US averaged 25.3%
  - Indiana 28.5%
- Only 21% of adults are meeting the physical activity guidelines
  - <5% perform 30 minutes of physical activity per day

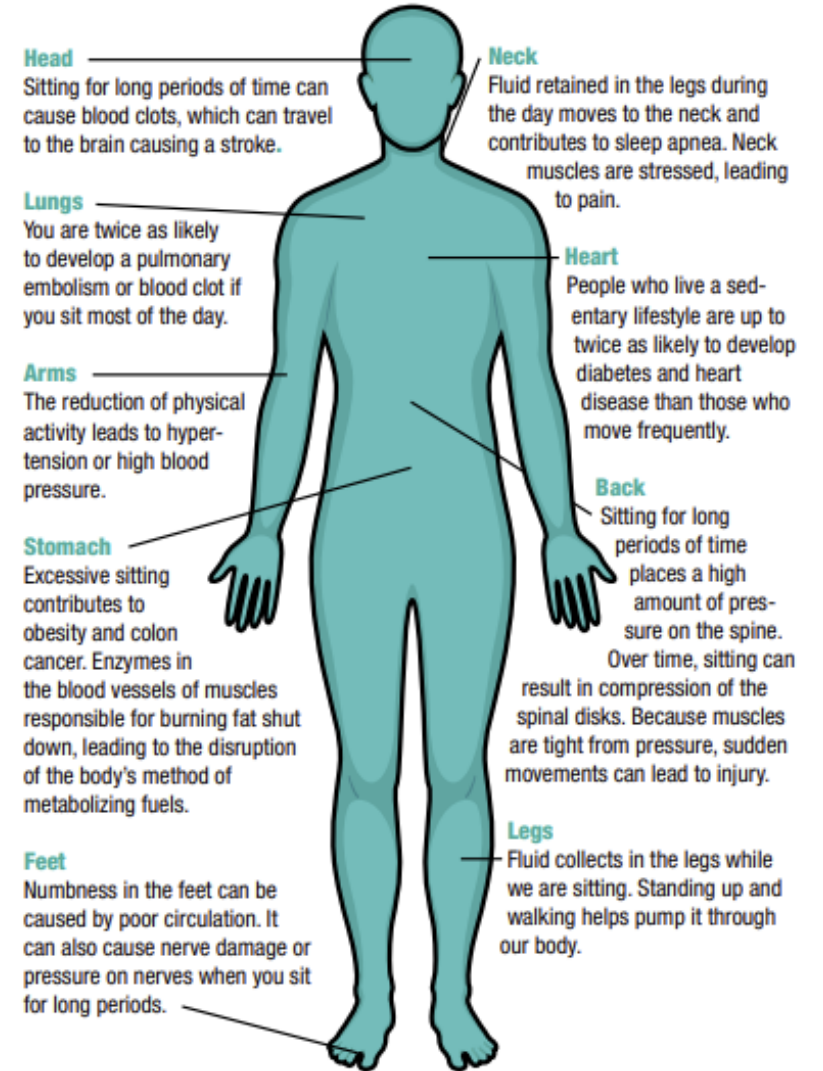


Source: U.S. Centers for Disease Control and Prevention

# Health Risks

- Impacts extend beyond the workplace
- Health Risks of prolonged inactivity
  - Obesity
  - Cardiovascular disease
  - Type 2 diabetes
  - Cancer
  - Depression/anxiety

## 9 Ways Excessive and Improper Sitting Can Harm You



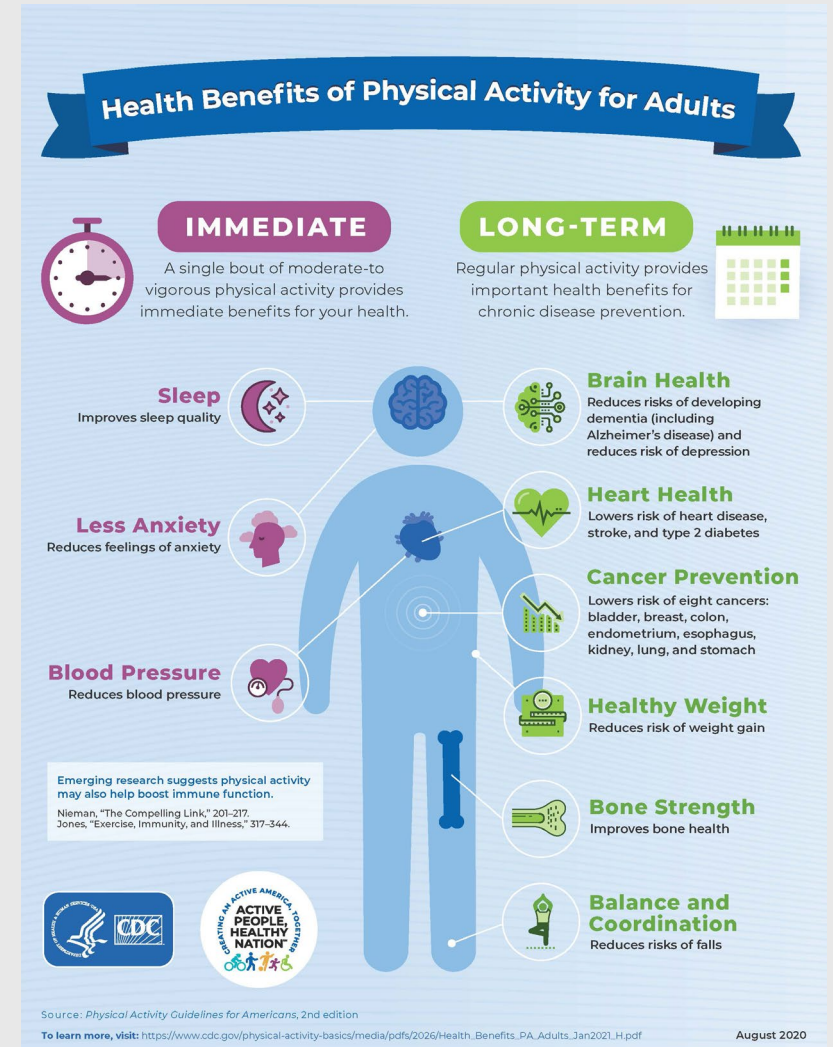
# Activity Recommendations

- 150 minutes of moderate-intensity physical activity a week
  - OR 75 minutes of vigorous-intensity physical activity
- PLUS at least 2 days of muscle-strengthening activity each week
- If age 65+, should also include activities to improved balance

RPE SCALE	RATE OF PERCEIVED EXERTION
<b>10</b> /	<b>MAX EFFORT ACTIVITY</b> Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time
<b>9</b> /	<b>VERY HARD ACTIVITY</b> Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words
<b>7-8</b> /	<b>VIGOROUS ACTIVITY</b> Borderline uncomfortable. Short of breath, can speak a sentence
<b>4-6</b> /	<b>MODERATE ACTIVITY</b> Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging
<b>2-3</b> /	<b>LIGHT ACTIVITY</b> Feels like you can maintain for hours. Easy to breathe and carry a conversation
<b>1</b> /	<b>VERY LIGHT ACTIVITY</b> Hardly any exertion, but more than sleeping, watching TV, etc

# Benefits of Activity

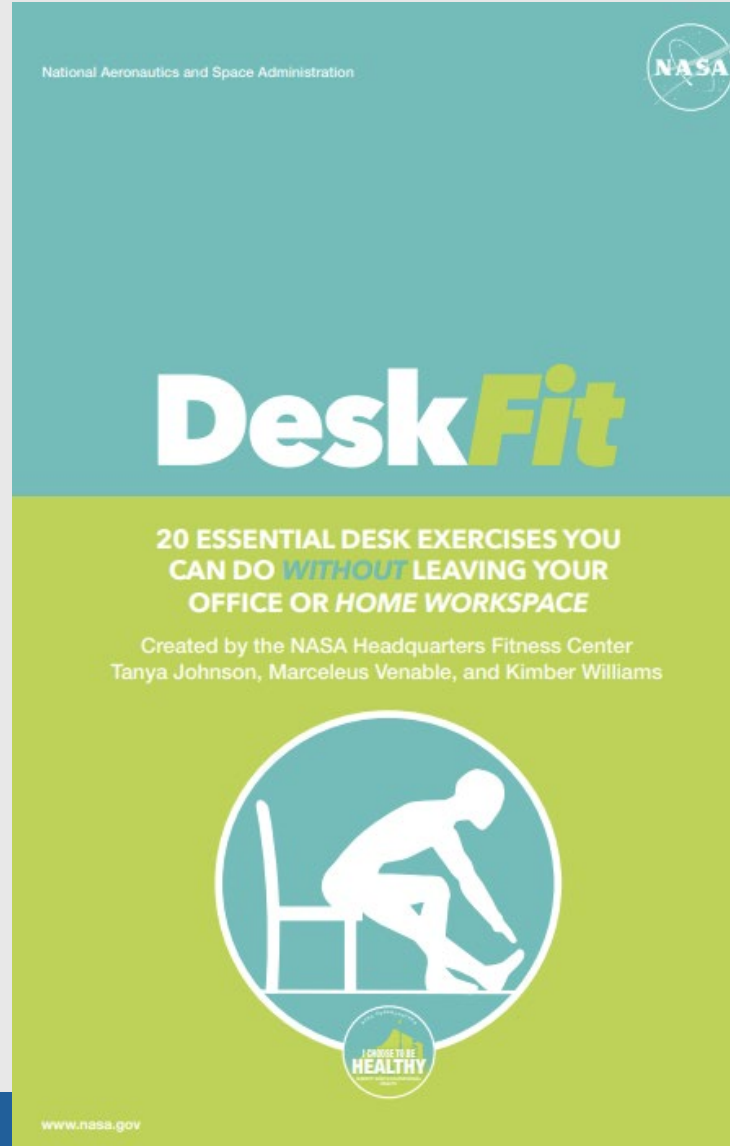
- Getting enough physical activity could prevent:
  - 1 in 15 cases of heart disease
  - 1 in 12 cases of diabetes
  - 1 in 8 cases of breast cancer
  - 1 in 10 premature deaths
- Reduces risks of developing cancers of the bladder, breast, colon, endometrium (innermost lining layer of the uterus), esophagus, kidney, lung, and stomach
- May help reduce the risk of serious outcomes from infectious diseases
- Decreases the risk of falls in older adults



# Interventions

- Not a “one size fits all” approach
  - One and done
  - 30 min/day, 5 days/week
- Exercise “snacks” throughout the day
  - 10 min bouts, 3 times/day
  - Take a break from sitting every 30 minutes
  - Standing work station, walk breaks, standing or walking calls/meetings
  - Multitask
- Create a routine/habit
  - Active commute, park further away, use the stairs
  - Make a schedule, set an alarm
  - “Buddy System” to help hold you accountable

# Interventions



# Ergonomics

**Ergonomics** = the science of people in their work environment

- Applying principles to optimize movements to be safe and efficient to prevent discomfort or injury
  - Ex: safe lifting techniques, proper posture, appropriate seating position, and assistive devices
- Ergonomics programs provide guidelines for reducing workplace risk factors, which can lead to reduced workplace injuries

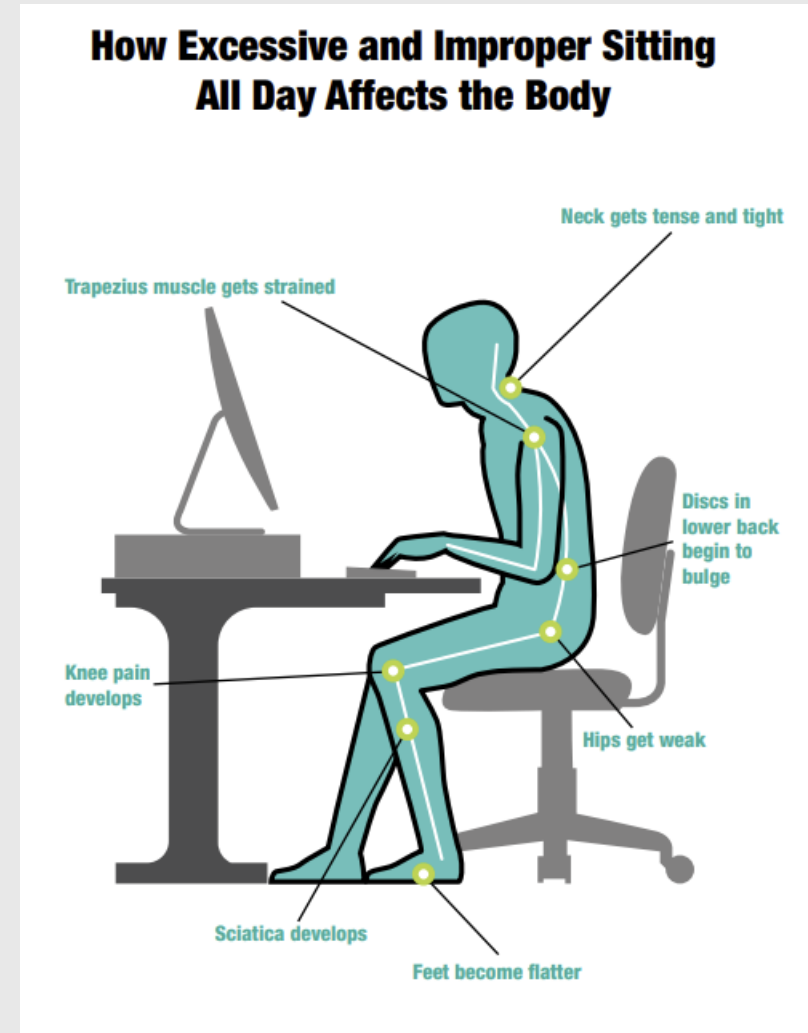
# Ergonomics

**Work-related musculoskeletal disorders (WMSDs)** = Disorders of the muscles, nerves, tendons, ligaments, joints, cartilage, or spinal discs that can be attributed to the work environment and the performance of work

- WMSDs are not the result of any instantaneous non-exertion event (e.g., slips, trips, or falls)
  - Examples of risk factors include awkward postures, overhead work, twisting and carrying loads, contact stress, poor shoulder and wrist posture, lifting bulky loads, whole body vibration, along with psychosocial stress risk factors
- May be mild to intense and cause occasional to chronic pain

# Ergonomics

- WMSDs are costly and can significantly reduce worker productivity and morale
  - In 2019 The Bureau of Labor Statistics reported 29% of cases were related to WMSDs
  - The median days away from work for a WMSD is 14 days, compared to 9 days off for other work-related injuries
- Ergonomics programs enable employers to detect WMSD problems and develop solutions
  - Preventing further losses in productivity, quality, and profit
  - Lowering rates of absenteeism, lost time
  - Reducing worker compensation premiums
- Awkward or unnatural postures require more exertion from your muscles, tendons, nerves, and bones



# Symptoms of WMSDs

Users at risk for WMSDs associated with computer use may experience some of the following:

- Numbness or a burning sensation in the hand
- Reduced grip strength in the hand
- Swelling or stiffness in the joints
- Pain in wrists, forearms, elbows, neck, or back
- Reduced range of motion in the shoulder, neck, or back
- Dry, itchy, or sore eyes
- Blurred or double vision
- Aching or tingling
- Cramping
- Weakness



# Proper Computer Workstation Positioning

- **Hands, wrists, and forearms** are straight, in-line and roughly parallel to the floor
- **Head** is level, forward facing, and balanced
- **Shoulders** are relaxed and **upper arms** hang normally at the side of the body
- **Elbows** stay in close to the body and are bent between 90 and 120 degrees
- **Feet** are fully supported by the floor, or a footrest may be used if the desk height is not adjustable
- **Back** is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly
- **Thighs** and **hips** are supported and generally parallel to the floor
- **Knees** are about the same height as the hips with the **feet** slightly forward

# Proper Computer Workstation Positioning

## Upright Sitting

*Upright sitting posture.* The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

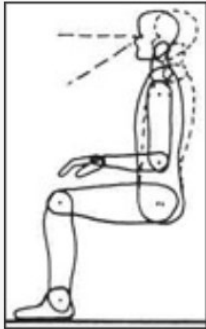


Figure 1. Upright sitting posture



Figure 2. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

## Standing

*Standing posture.* The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart. The user may also elevate one foot on a rest while in this posture.

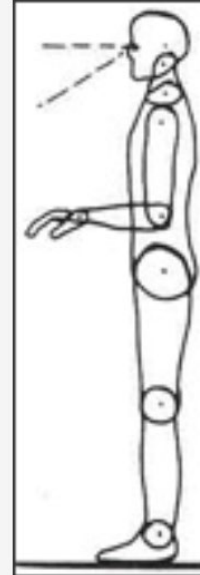


Figure 3. Standing posture



Figure 4. The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart.

Source: U.S. Department of Labor, Occupational Health and Safety Administration

# Computer Workstation Checklist

## Monitors

- Make sure the screen is large enough for adequate visibility
- The angle, tilt and height should be easily adjustable
- If multiple monitors are used, the monitor that is used most should directly in front of you
- Use a docking station for laptops so the monitor can be placed in the best possible location



# Computer Workstation Checklist

## Keyboards

- Consider alternative keyboard designs to maintain neutral wrist position
- Computer cords should be long enough to allow a variety of positions
- Consider a keyboard without a 10-key keypad if the task does not normally require one to allow positioning of the mouse closer to the keyboard
- Use an external keyboard and mouse for laptops and tablets, especially for prolonged use
  - Avoids compromising keyboard vs monitor positioning



# Computer Workstation Checklist

## General desk/work station

- Monitor should be placed eye level and at least 20 inches away from your eyes.
- Keyboard should be at about elbow height – adjustable between 22 inches and 30 inches for seated tasks and 36 to 46.5 inches for standing tasks.
  - Fixed-height desk may require the use of a keyboard tray to allow for height adjustment
- Desktops should have a matte finish to minimize glare (avoid glass tops)
- Avoid sharp edges where arms contact work surfaces
  - Rounded or sloping surfaces are preferable
- A height adjustable worksurface is preferred to allow for regular changes in work postures
  - Comfortable and supportive shoes should be worn while standing.

# Computer Workstation Checklist

## Chairs

- Should be easily adjustable
  - Includes seat height, seat pan tilt, seat pan depth, backrest, armrests (height and width)
- Seat pan width should be at least as wide as the user's thighs
- Material for the seat pan and back should be firm, breathable, and resilient
- Front edge of the seat pan should be rounded in a waterfall fashion
- Armrests should be padded
- If the user weighs more than 275 pounds, the chair must be designed to support the extra weight



# Computer Workstation Checklist

## Extras

- Document holder
  - If a monitor is the primary focus, place document holder next to the monitor at the same height and distance
- Wrist Rests
  - Designed to be used when resting - use should be minimized when actively keying
  - Should match the front edge of the keyboard in width, height, slope, and contour
  - Pad should be soft but firm (gel recommended)

# Computer Workstation Checklist

## Input Device (Mouse)

- Should match the size and contour of the user's hand
- Selection based on user ability, task requirements, and preference
  - A variety of available types, including touchpads, trackball, vertical, and roller mouse
- Wireless mouse, if possible, to allow greatest freedom of placement for the mouse
- Place the mouse as close to the keyboard as possible



# Computer Workstation Checklist

## Telephones

- If manual tasks such as typing is required, use a "hands-free" cordless headset or speaker feature
- Should have volume adjustments and volume limits.

## Desk Lighting

- Bright lights with a large lighted area when working with printed materials
- Limit and focus light for computer tasks

# Solutions

- Maintaining the same position for an extended period of time, even a neutral position, can cause additional muscle fatigue and disrupt blood flow
- Change your working position frequently throughout the day
  - Make small adjustments to your chair or backrest
  - Stretch your fingers, hands, arms, and torso
  - Stand up and walk around for a few minutes periodically
  - Perform some of your tasks in standing: computing, reading, phone, meetings
- Provide variation in tasks and workstations, mixing non-computer-related tasks into the workday if possible, to encourage body movement and the use of different muscle groups

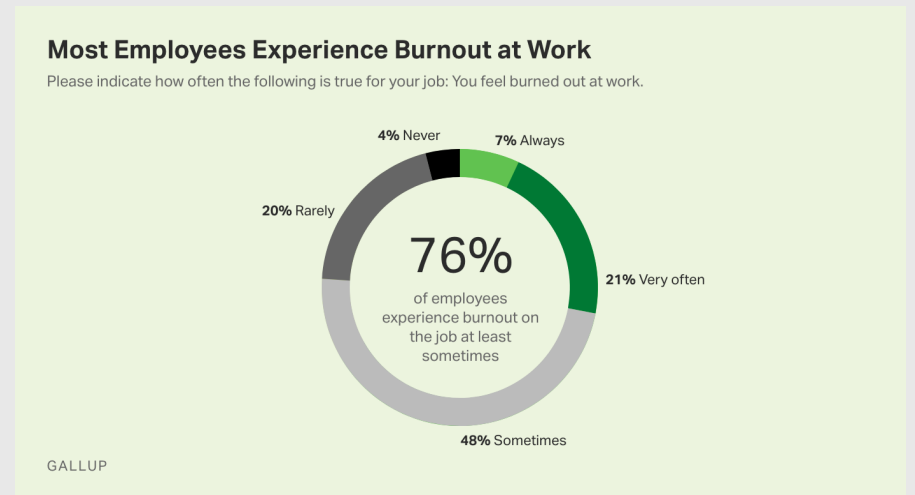
# Corporate Responsibility



# Mental Health and Wellbeing

**Burnout** = chronic workplace stress that leads to emotional exhaustion, dissatisfaction with one's accomplishments, and depersonalization (detachment from one's job)

- Results from an imbalance between demands and resources (Demerouti et al., 2001)
- How people experience their workload has a stronger influence on burnout than hours worked
- According to a Gallup study, the top five factors that correlate most highly with employee burnout are:
  - Unfair treatment at work
  - Unmanageable workload
  - Unclear communication from managers
  - Lack of manager support
  - Unreasonable time pressure



# Impact of Burnout

- Symptoms can include exhaustion, detachment, and reduced performance
- Workers can be both burned out and engaged at the same time (Timms et al., 2012)
  - means that burnout is not always easy to observe
  - **76% of employees experience burnout at least sometimes**
- Impact of Burnout
  - Increased:
    - Sick days
    - Healthcare use
    - Workplace safety concerns
    - Turnover
    - Mental health conditions
  - Decreased:
    - Productivity
    - Performance
    - Job satisfaction

# Preventing Burnout

## Individual strategies:

- Set boundaries – reduce demands through things like scheduling, work delegation, etc.
- Update resources needed to meet demands like actual equipment, software systems (AI), or training programs
- Allow time for recovery – Take breaks, use PTO
- Utilize your EAP resources
- Get moving – Physical activity reduces stress and improves mood



# Preventing Burnout

## Workplace Culture Matters

- Supportive leadership
- Encouraging breaks
- Promoting wellness programs
- Reducing stigma around mental health

# Sleep and Recovery

Poor/insufficient sleep linked to:

- Cognitive impairment (cumulative deficits in alertness and attention)
- Sedentary behavior and obesity
- Accidents and workplace errors
- Burnout and other mental health problems
- Chronic disease (cardiovascular disease, diabetes, dementia, cancer, immune dysfunction)



# Sleep and Recovery

- Goal should be 7–9 hours/night
- Tips:
  - Consistent schedule and routine, even on weekends
  - Limit screens and electronics at least 30 min before bed
  - Dim light 2-3 hours before
  - Avoid naps
  - Exercise daily



# Summary for Improving Wellness

## Daily Checklist

- Move every 30–60 min
- Get some moderate activity
- Check posture (use OSHA checklist)
- Prioritize sleep
- Take mental breaks



# Corporate Interest

Benefits of employer sponsored wellness programs:

- Reduce increasing health care costs
- Improve productivity
- Reduce absenteeism
- Reduce injuries
- Improve employee morale and retention
- Establish a Healthy Culture



# Summary for Improving Wellness

## Key Takeaways

- Sedentary behavior is common—but modifiable
- Small changes → big health benefits
- Movement + ergonomics + mental health = total wellness

# Questions?



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# Thank you!

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