CVS Health®

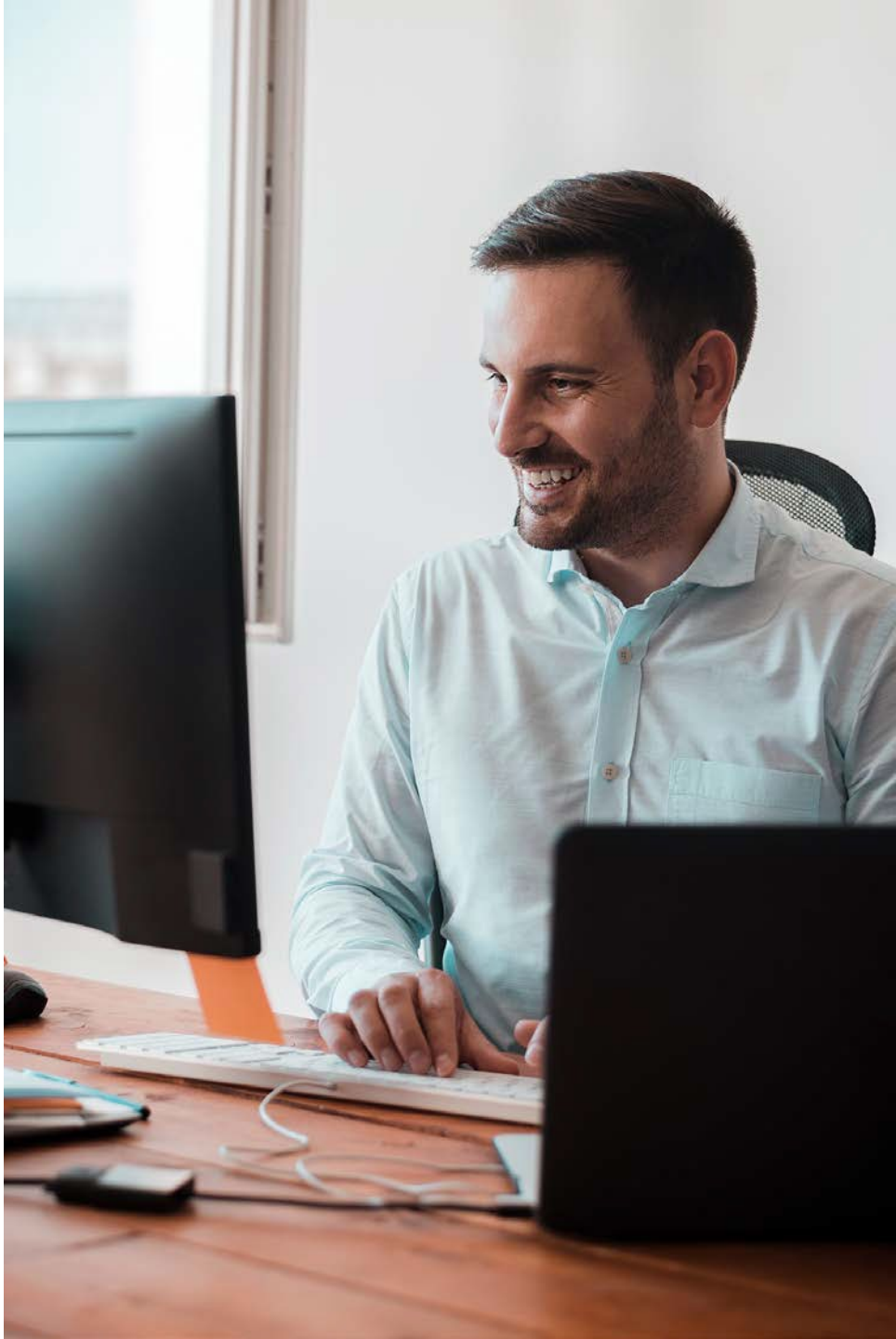
Ergonomics how-to guide

For the computer-based worker

Making your workspace safe and efficient

Table of contents

Click to jump to a desired topic:



What is ergonomics?

Ergonomics is the science of arranging and adjusting your work environment to create a more efficient and safe experience.

The goal of ergonomics is to:

- Reduce stress
- Eliminate injuries and disorders associated with the overuse of muscles, bad posture and repetitive tasks
- Lessen muscle fatigue
- Increase productivity
- Reduce number and severity of work-related musculoskeletal disorders such as carpal tunnel syndrome, tendinitis and lower back injuries

Ergonomic interactions don't just happen at your desk. They occur wherever people and things interact—including at your home.

Ergonomics

[ur-g*uh*-**nom**-iks]

Applying scientific insights to the design and use of equipment/devices to help you reduce stress to your body, so you can be comfortable, safe, healthy and productive

CVSHealth

Ergonomic risk factors of computer work

Repetition

- Task or motion that is performed over and over
- Requires prolonged use of a muscle or muscle group

Forceful exertion

- Amount of physical or muscular effort to complete a task

Awkward postures

- Body not in a neutral position while performing an activity
- Reaching, twisting, bending or holding a fixed position

Contact stress

- Localized pressure against the skin by external force
- Occurs when part of your body rubs against part of your workstation

Note: The presence of risk factors does not mean that an injury will occur.

CVSHealth

Work-related musculoskeletal disorder

Also known as cumulative trauma disorders, repetitive strain injuries, overuse injuries or soft tissue injuries

Symptoms

Symptoms of injury last longer than temporary muscle fatigue, aches or stiffness and can include:

- Discomfort
- Pain
- Numbness
- Tingling
- Burning
- Swelling
- Change in color
- Tightness, loss of flexibility

Possible Conditions

Prolonged exposure to risk factors can result in conditions such as:

- Carpal tunnel syndrome
- Trigger finger
- Tenosynovitis
- Tennis elbow
- Tendinitis
- Cubital tunnel
- Rotator cuff syndrome

These usually develop gradually, but sometimes can appear suddenly.

CVSHealth

Discomfort symptoms and where to begin to look for solutions

Head/neck	Upper back/shoulders	Lower extremities
• Monitor height • Downward looking? • Location of paper documents (same visual height as screen) • Monitor distance	• Chair arm, monitor and keyboard/mouse heights • Sources of unnecessary lean, reach and stretch • Shoulder cradling phone?	• Height/angle/length of seat • Using footrest? • Change position periodically • Do workstation stretches
Headaches/visual issues	**Lower back**	**Hands/arms**
• More micro breaks • Monitor height (if wearing bi- or trifocals, may need to lower screen further) • Glare issues • Monitor contrast/brightness	• Adjust chair • Leaning/reaching forward? • Slouching/sitting on edge of seat? • Improper lifting or twisting?	• Height/angle of keyboard/mouse • “Anchoring” with palms down to keyboard/mouse? • Pressure points against desk surface or elbows on chair arms?

How to sit properly—in neutral position

1

- Top of a laptop screen is at or just below eye level
- Top third of 19" or larger flat panel screen is at eye level
- Position at arm's length, no closer than 20"

2

- Fingers are relaxed with wrists in a neutral position
- Hands are in line with the forearm
- Keyboard should be positioned at elbow height or just below
- Keyboard should have a wrist/palm rest at the same height as the space bar
- Mouse should be placed as close to the keyboard as possible and on the same level

3

- Feet rest firmly on the ground or are supported by a footrest so knees are at hip level

4

- Head and body are straight—ears over shoulders, shoulders over hips

Sitting in a neutral position reduces the amount of stress on muscles.

5

- Arms/elbows should be at or just slightly more than a 90° angle
- Elbows are close to the body and straight down from the shoulders
- Distance from elbow to hand should be used for items you touch constantly throughout the workday

6

- Lumbar support of chair fits in the lower curve of your back
- Arm rests are just below elbow height and not used except when resting
- Elbows do not rest on the arm rests
- Chair is adjusted to keep body supported in an upright position

7

- Hip angle at about 100^0 to 110^0 with about 1" clearance from thighs to keyboard/mouse surface
- Front of seat not pressing on back of knees

8

- Chair height allows adequate leg clearance, maintains keyboard/work surface at relaxed elbow level

CVSHealth

Tips for office chair features

Sitting a lot? Here's a checklist for your comfort.

- **Base:** Five wheels allow you to easily move up and away from work surface
- **Adjustability:** Ideally, adjust back heights, seat depth and height, armrests, etc. to best fit your body
- **Seat cushion:** Flat may be more comfortable than contoured in the long term
- **Arm rests:** Not necessary, but should be adjustable/movable if present so they don't impact your arms when working in a neutral position

Looking for a new chair or other items? When shopping, remember:

- An "ergonomic" product label doesn't necessarily mean the claim is backed by science
- Like most things, "you get what you pay for;" invest as your budget will allow

CVSHealth

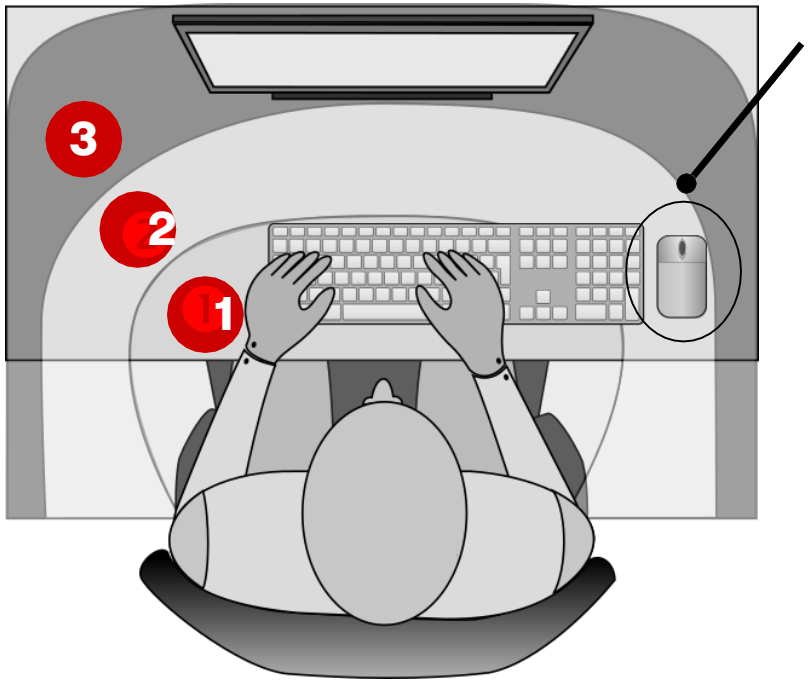
Arranging your workspace

Arrange tools around your desk so you minimize the distance you have to reach for them. Pull close to your desk and divide your workspace into *three zones*.

1. **Primary work zone:** The distance from elbow to hand. Used for items you touch constantly throughout the workday.

2. **Secondary work zone:** Within arm's reach. Used for items that you use frequently, but don't need all the time.

3. **Reference zone:** Outside of arm's reach. Used for least-often used items. Could be over-desk shelves—standing to access them gives your body a brief change of position, or micro-break from static work postures.



Place the mouse as close as possible to the keyboard and on the same level.

When typing or using the mouse:

- Elbow angle should be just slightly more than 90^0.
- Wrists should be flat and straight.

CVSHealth

Using your keyboard and mouse

Keyboard

- Keep the keyboard in straight alignment with your body and monitor
- Don’t rest the heels of your hands on the edge of the keyboard or the work surface
- When not typing, move your hands off the keyboard
- Keep the keyboard as flat as possible; don’t use the feet on the back of the keyboard
- Use a light touch
- Don’t reach or stretch for keys at extremes of the keyboard (function keys, backspace, etc.); slide your hands over
- Wrist rests are for resting, not to use while keying. When using, place the tough skin of the palm of your hand on the rest, not the sensitive area across your wrist

Mouse

- No death grip—it won’t run away
- Try using alternate keystrokes instead of constantly using the mouse
- Keep the mouse/pad close to the keyboard
- Right dominant? Try “mousing” with your left hand—the mouse on the left decreases reach and shares workload with the left hand. It'll take time to adjust; try it gradually
- Clean surface contacts so your mouse moves and reacts easily

Additional workspace considerations

Computer monitor

- Position your screen perpendicular to the window or other light sources to reduce glare
  - If glare exists, tilt monitor towards you, adjust lights or pull shades
- Keep your primary monitor in straight alignment with you and your keyboard, and the screen clean
- Wear contacts or glasses?
  - Make sure your prescription is up to date
  - Bifocals? Adjust your monitor lower
  - Follow up with your eye care specialist

Visual display

- Adjust screen font size to what is comfortable for you to read
- Adjust screen brightness to match your surrounding workspace brightness
- Adjust color contrast between background and characters so you can read the screen clearly
- Select backgrounds and screen colors that are not too "busy"

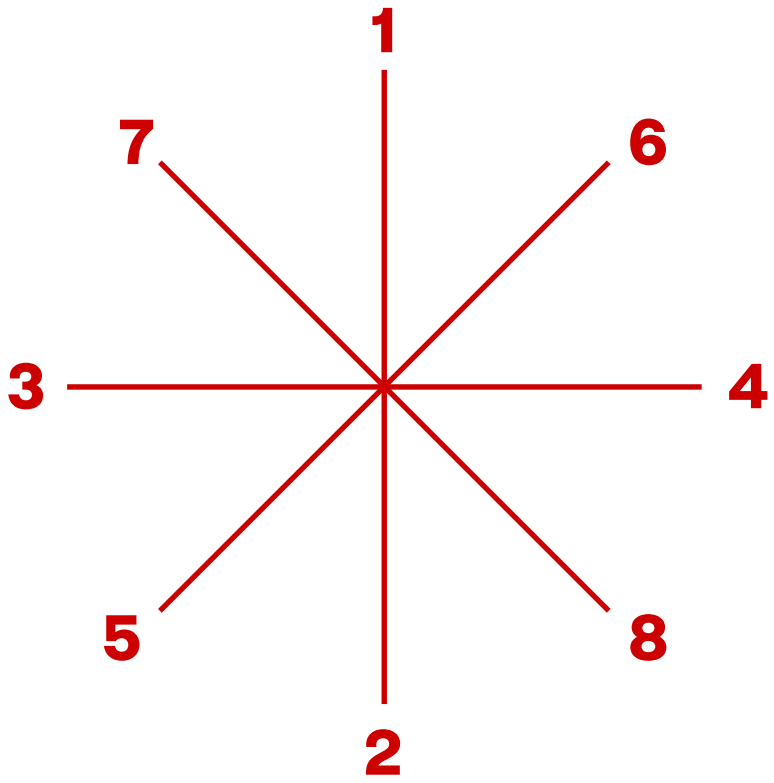
Lighting

- Be aware of workspace lighting to avoid:
  - Fatigue, discomfort
  - Eye strain
  - Headaches
  - Poor posture
- Consider:
  - Brightness
  - Glare
  - Color
  - Quantity
  - Positioning

Examples of when to take micro-breaks

60- to 90-second breaks to relax, stretch or stand up

Eye-fatigue buster



Imagine the pattern is drawn ceiling to floor at the far end of the room (20 or 30 feet away if possible):

- Roll your eyes up to look at the top point (1)
- Then roll eyes down to the bottom (2)
- Make your eye movements smooth and continuous
- Repeat a few times. Rest for a moment
- Do the same thing looking left to right (3-4), then diagonally (5-6) and (7-8)
- Rest briefly between sets

More eye-fatigue tips

Relax your eye muscles

- 20-20-20 Rule: Every 20 minutes, look at something 20 feet away, for 20 seconds

Relieve dry eyes

- Squeeze your eyelids tightly shut for a second or two, then open them as wide as you can
- Repeat four or five times
- Don’t rub your eyes

Relieve tension with palming

- Form hands into hollow cups
- Place them over your eyes—the bony parts of your hands just above your wrist go on your cheekbones and your fingers across the bridge of your nose—no pressure on the eye or lid
- Open your eyes and adjust your hands to exclude all light, or as much as possible
- Raise your eyebrows and support their weight with your hands
- Close your eyes for a few moments and imagine a pleasant scene

CVSHealth

Reasonable Accommodations

If you have a disability or if you believe you need a reasonable accommodation for medical reasons, contact the CVS Health Reasonable Accommodations team.

The phone number is **1-877-805-9511**, Option 1 to request an accommodation.

CVSHealth


CVS Health®