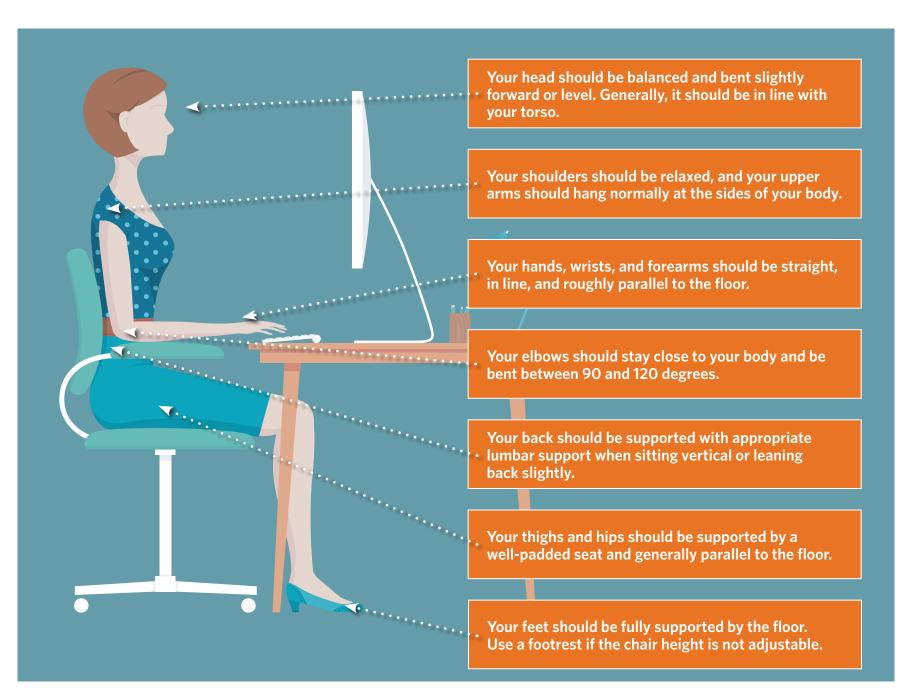


Computer Workstation Ergonomics 101

Neutral body positioning is the key to understanding ergonomics at your computer workstation. This working posture allows your joints to naturally align, reducing stress and strain on your muscles, tendons, and skeletal system.

Keep the following in mind:



Regardless of how good your working posture is, staying in the same position or sitting still for prolonged periods is not healthy. You should change your working position throughout the day in the following ways:

- Make small adjustments to your chair or backrest.
- Stretch your fingers, hands, arms, and torso. Stand up periodically and walk around for a few minutes.

References: www.osha.gov/SLTC/etools/computerworkstations/positions.html



Try these stretches at your desk:



Upper Trapezius (Side of Neck)

Pull your head to one side, taking your ear toward your shoulder, while holding onto the chair with your other hand.

Keep both shoulders down and back, and do not let your head move forward.



Levator (Back of Neck)

Place one hand on the shoulder blade on the same side, with your elbow as high as possible. Turn your head away from that side. With

the other hand, pull your head down and toward the opposite side. Keep both shoulders down.



Chest

Place your fingertips above and behind your ears. Pull your elbows back without pushing your head forward, arching your back, or lifting your shoulders. Do not clasp your hands.



Rhomboid (Mid-Back)

Sit with your chair angled toward the corner of your desk. Reach across your body to hold the corner of your desk with one hand so that it is in front of your opposite knee. Pull your

body backward, rounding your mid-back. Tuck your head down and toward the corner of the desk.



Hamstring (Back of Thigh)

Sit on the front edge of the chair with one leg extended and your hands on the opposite knee. Keeping your back straight and your head and chest up, lean

forward from the hips. Keep your knee angled toward the ceiling and your foot relaxed. Variations: 1) Flex your foot. 2) Bend your knee.



Gluteals (Buttocks)

Sit on the front edge of the chair with one ankle on the opposite knee. Keeping your back straight and your head and chest up, lean forward from the hips. Variations: 1) To make it

easier, move the foot on the floor away from you to lower the supporting knee. 2) To increase the stretch, push down on the knee of the leg being stretched. Note: Pull up on your knee if you feel any discomfort in your knee.



Step Up to Wellness

Move and stretch at your desk





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Sitting at your desk for long periods of time can make you less alert; create tightness in your neck, shoulders, and back; and make your joints stiff.

Prolonged sitting can also worsen your blood sugar levels and cholesterol levels and increase your risk of blood clots and other health factors. There are things you can do without even leaving your desk to improve these issues. You'll feel better and be more productive.

Good habits

It's important to move and stretch at your desk, and to keep moving throughout the day. Set an alarm on your computer, phone, or watch to remind you. Here are a few ideas:

- Walk around. Get up from your desk at least once every hour, or better yet, every 20 minutes.
- Walk to your co-worker's desk to discuss projects rather than talking on the phone.
- Take the stairs instead of the elevator. This is a great way to work your muscles and increase blood flow.
- Stand up when talking on the phone.
- Take a walk at lunch. This can minimize your afternoon fatigue.
- Breathe. Many people hold their breath when they concentrate. Remember to breathe slowly and evenly throughout the day. This can help lower your blood pressure and ease muscle tension.

You may be surprised to find that these simple exercises can make a big difference in how you feel and how much energy you have during the day.

Move around more

Try these simple exercises throughout the day, especially before stretching. Be sure to stay within a comfortable range of motion.

Stand Up, Sit Down

Stand up from your chair and sit back down. If possible, do this without using your hands.

As you sit, try to go as close to the chair as possible without fully sitting between repetitions. Keep your weight on your heels and your hips back at all times.

Repeat 2 to 10 times every time you stand up or sit down.

Neck Range of Motion

Tilt your head fully forward and then lift your chin up without dropping your head backward. Repeat 5 to 10 times.

Tilt your head to the right and then to the left, keeping your chin lifted and not dropping toward your shoulder. Repeat 5 to 10 times.

Rotate your head to the right and then to the left, keeping your chin lifted and not dropping toward your shoulder. Repeat 5 to 10 times.

Shoulder Circles

Sitting tall, make big circles with your shoulders, moving them up, back, and then down. Emphasize the back and down motions, and do not move them forward.

Do not let your back arch or bend forward.

Do not let your head move forward. Repeat 10 times.

Overhead Presses

Lift both arms so that your elbows are bent and shoulder-high with your hands up toward the ceiling. Keep your elbows as far back and shoulders as far down as they comfortably go, and your neck relaxed.

Exhale as you reach your hands up toward the ceiling until fully extended.

Return slowly back to your starting position, keeping your elbows back and shoulders down.

Stretch Gently

Stretching can help you feel more relaxed, reduce muscle and joint pain, improve your blood flow, and maintain better posture. For best results, follow these tips:

- Try to do gentle movements, such as the exercises described above for five minutes before stretching to warm up.
- Be sure to move into and out of each stretch slowly.
- Go only until you feel the stretch. If the stretch feels more than mild to moderate, you have gone too far and are increasing your risk for injury.
- Be sure to relax.
- Breathe deeply and evenly while stretching; do not hold your breath.

It's important to move and stretch at your desk and to keep moving throughout the day.

Stretch it out!

- Warm up before stretching.
- Start each stretch in a relaxed position, feet shoulder width apart, knees slightly bent, and abdomen contracted to support your back.
- Perform the stretches at your own pace and ability you are not competing.

- Stretch to the point of comfortable tension. Do not strain when you stretch.
 You should have no pain.
- Do not bounce while stretching hold each stretch for approximately 20 seconds as you breathe.
- Breathe while performing each stretch/warm-up.

Shoulder Rolls



Muscle Group: Shoulder

- Start with your feet shoulder width apart.
- Lift your shoulders up toward your ears, roll back, and roll down.

Repeat 10 times; 1 to 3 sets.

Overhead Reach



Muscle Group: Shoulder

- Start with your feet shoulder width apart.
- Place your right leg back.
- Keep the curve in your lower back, and keep your shoulders upright.
- Move hands from shoulder level to over the head with a gentle push upward.
- Exhale as you push up; inhale as you pull down.

Repeat 10 times.

Side Push/Pull



Muscle Group: Shoulder/Chest

- With your feet shoulder width apart, put your left leg back, hands at chest level.
- Push out to the side at shoulder level, hands moving from a fist to open.
- Keep wrists straight with arms at shoulder level.
- Pull back to chest level.
- Keep the shoulders and chest upright, stretching the left hip and keeping the left heel on the ground.
- Exhale as you push out; inhale as you pull in.

Repeat 10 times; 1 to 3 sets.

Forward Push/Pull and Pelvic Tilt



Muscle Group: Chest/Back

- Start with your feet shoulder width apart.
- Keep wrists straight and hands at chest level.
- Push forward with an open hand, and pull back to chest level with a closed fist.
- As you push forward, roll your pelvis forward, flattening your back.
- As you pull your hands back, roll your pelvis back, increasing the lumbar curve in your lower back.
- Exhale as you push out; inhale as you pull in.

Repeat 10 times; 1 to 3 sets.

Knees to Chest



Muscle Group: Leg

- Starting with your feet just inside shoulder width apart, alternately lift each leg to a comfortable level upward toward your chest.
- Keep your hands at chest to waist level as a target for your knees.
- Exhale as you lift; inhale as you lower each leg.

Repeat 10 times with each leg.

Squats



Muscle Group: Leg

- Start with your feet shoulder width apart. Lower yourself to a comfortable level — imagine sitting on a chair.
- Return to an upright position.
- Do not lean forward. Maintain your lumbar curve. This movement should not be painful.
- One leg may be slightly forward.

Repeat 10 times.

Ankle Rolls



Muscle Group: Ankle/Calf

- With your feet inside of shoulder width apart, place one foot forward with the heel off the ground.
- Rotate your ankle clockwise 10 times, then counterclockwise 10 times.

10 times. Repeat with opposite leg/ankle.

Shoulder Rotations



Muscle Group: Shoulder Rotator

- With your feet shoulder width apart, reach behind your head.
- Gently pull your elbows back.
- Reach behind your back.
- Place the back of your hand on your lower back, and slide upward.
- If you are unable to reach the back of your head or lower back, reach as far as you feel comfortable and can hold.
- Movement should be slow.

Hold a comfortable stretch for 3 seconds on each arm and repeat 10 times.

Posterior Capsule



Muscle Group: Shoulder

- Reach across to the opposite shoulder.
- Apply gentle pressure behind the elbow.
- Repeat with the opposite arm.

Hold a comfortable stretch for 10-15 seconds on each side 3 times.

Side Bend

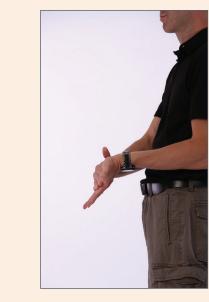


Muscle Group: Trunk (Oblique)

- With your feet just inside shoulder width apart, gently reach overhead with your right hand, and slide your left hand down your left leg.
- Repeat with the left hand overhead and the right hand sliding down the right leg.

Hold a comfortable stretch for 20 seconds on each side 3 times.

Wrist Stretches



Muscle Group: Wrist

- Start with the wrist to be stretched in a palm-up position.
- Bring the opposite hand over in a palm-down position.
- Place palms together.
- Gently apply pressure downward.
- Keep the fingers straight.
- Repeat with the opposite wrist.
- There should be no pain or numbness.

Hold a comfortable stretch for 15 seconds on each wrist 3 times.

Hamstring Stretch



Muscle Group: Hamstring

- Start with your feet shoulder width apart.
- Place your foot slightly in front of you, resting on its heel.
- Bend forward at your hips (not your back).
- Keep the curve in your lumbar spine and shoulders upright and your chin slightly tucked in.
- Gently reach toward your toes.

Hold a comfortable stretch for 20 seconds on each leg 3 times.

Always consult a physician before starting any physical activity program.

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