

COMPUTER WORKSTATION SAFETY

COURSE OUTLINE

- **A computer workstation doesn't appear to be very dangerous.**
 - In fact it seems pretty harmless when you compare it with the big machines and power tools that some people use in their jobs.
- **But a lot of people have found out the hard way that if they don't set up and use their computers correctly, a computer can in fact, hurt them.**
- **Of the millions of people who use computers in their jobs every day, one out of five suffer some pain.**
 - Repetitive motion, poor lighting and physical stress can lead to conditions like carpal tunnel syndrome, computer vision syndrome and lower back problems.
- **The hazards are real. But there are things you can do to avoid the pain and injuries that can occur when you're working with your computer.**
- **What's "dangerous" about a computer workstation?**
 - To start, when it's disorganized, or has been "organized" in the wrong way, it can create real problems.
- **How we set up our workstations determines the stresses and strains that we experience as we use them. And that can have a big impact on our bodies.**
- **For example, when the materials you use with your computer are scattered randomly around your work area, it can force you to make long, awkward "reaches" to grab them.**
 - Over time, that can cause chronic problems like lower back pain.
- **You can eliminate this hazard by placing the things that you use most often no more than 14-to-18 inches away from you.**
 - You'll also want to put as many of those things as possible directly in front of you, to reduce the amount of twisting and turning you have to do in your chair.

- **Arranging a computer on your desk may seem like a no-brainer. But if you position the monitor incorrectly, you're setting yourself up for eyestrain and neck pain.**
 - The monitor should be placed 16-to-27 inches from your eyes.
 - It also needs to be set up so that you are looking down at it, at a 5-to-20 degree angle.
 - It doesn't matter whether you're using a desktop, a laptop or even a tablet. They should all be set up this way.
- **And here's a tip. When you're working with documents at your computer, position them at the same distance and height as the monitor screen.**
 - That way you prevent the strain and fatigue of constantly having to turn your head back and forth and refocus your eyes.
 - If you don't have a "document stand" you probably want to get one... they're pretty inexpensive.
- **Do you spend a lot of time on the phone when you're at your computer?**
 - It can seem "natural" to cradle the hand-set between your head and shoulder, so you can continue typing as you talk.
 - But when you think about it, it's a really bad idea, because it puts a lot of strain on your neck muscles.
 - The solution is simple! Equip yourself with a "hands-free" telephone headset.
 - That way you can get a lot done without the risk of pain and injury.
- **While how you set up your computer is important to working stress and strain-free, how you set yourself up is critical as well.**
- **Some nasty conditions like carpal tunnel and repetitive-motion syndrome can result from working at your computer with your body in awkward or stressful positions.**
 - You can avoid this by getting into what are called "neutral positions".
- **"Neutral positions" are stress-free postures in which your joints are naturally aligned and fully supported.**
 - Working with your body in neutral positions significantly reduces your risk of pain and injury.
- **So let's take a closer look at how to adjust your workstation so that you can maintain these types of positions.**

- **First, you need to fix the height of your chair.**
 - It should be high enough so that your elbows are bent between 90 and 120 degrees when your forearms are resting flat on your work surface.
- **The seat of your chair should provide firm support for your lower back, hips and thighs (good lower back support prevents the pain and fatigue that's caused by uneven pressures on your spine).**
 - If your chair doesn't provide enough support, you can add more by placing a lumbar cushion, pillow or even a rolled-up towel behind you.
- **When you're sitting, your thighs should be parallel to the floor, with your knees about the same height as your hips and your feet placed slightly forward.**
 - It's important for your feet to be firmly supported as well. If they rest flat on the floor after you've adjusted your chair, you're in good shape.
 - But if your feet aren't flat on the floor you will need to use a foot-rest, so that they don't dangle and create strain on your spine.
- **The next step in setting up your workstation is to position your keyboard. It should be close enough so that your fingers can easily reach the “home” keys of a, s, d and f on the left and j, k, l and semi-colon on the right.**
 - It's also important to be able to keep your wrists flat as you type, not bent up or down.
 - Keeping the wrists flat relieves pressure on the median nerve, which is where carpal tunnel syndrome can begin.
- **You may have to readjust the height of your chair slightly to get into this position.**
 - You can also adjust the height of your keyboard, or use a wrist-pad if necessary.
- **A final word about body position. Even if you've set yourself up with perfect posture, sitting still for prolonged periods is not healthy.**
 - So be sure to work some movement into your day.
 - Make small adjustments to your chair or backrest, stand up and stretch, or stroll down the hall and back.
 - Because "stirring yourself up" now and then is good for you.

- **Computers have made many tasks easier, yet it seems like our eyes are working harder than ever.**
 - Computer work even has its own brand of eyestrain.
 - Doctors call it "Computer Vision Syndrome" (CVS).
 - Symptoms include red, irritated eyes, fatigue... even neck pain and headaches. But there are things you can do to avoid CVS.
- **If you have your monitor positioned at the proper height and distance from your eyes, you've already taken one important step toward reducing the potential for CVS.**
- **You also need to make sure to keep your monitor screen clean. A screen's electrical charge attracts dust. Unless you clean it regularly, the images will just get harder and harder for you to see!**
- **So get yourself a supply of the disposable wipes that are made specifically for cleaning monitor screens.**
 - Start by wiping across the screen gradually, in small circles.
 - Avoid putting direct pressure on the surface while you do it.
 - Don't forget to power down your monitor before you start to clean.
 - And remember, you should clean the screen on a regular basis. Your eyes will appreciate it.
- **Your risk of developing Computer Vision Syndrome can also depend on the condition of your eyes themselves.**
 - If they feel itchy and you find yourself rubbing them, the reason could be that they're getting too dry.
 - That can happen easily when you're working at a computer, because we blink at only about half the normal rate when we're staring steadily at one spot, like a monitor screen.
 - To counteract this, make a conscious effort to blink more frequently. And use some lubricating eye drops or "artificial tears" if necessary.
- **If your job requires you to spend a lot of time on a computer, you should also see your eye doctor at least once a year.**
 - Regular examinations help to ensure that any eye problems you develop are corrected promptly.
 - If you do have a problem, the doctor may be able to prescribe "computer glasses" that are customized to your specific needs.
 - They can be created so you can clearly see both your keyboard and things that are a little further away, such as your monitor.

- **The doctor can also begin building a "vision health history" for you, so you can keep track of changes in your eyesight over time.**
 - And even if you've just started working with computers, it's a good idea to get an eye exam now, to establish a "baseline" for future exams.
- **Looking for an athletic challenge? You won't find it working with a computer.**
- **Computer work often means spending long periods of time in the same position, keying and using a mouse.**
 - And that can lead to problems, because our bodies are designed to move.
 - "Sitting still" causes stresses and strains that they weren't built to handle.
 - But you can help to prevent these problems by taking periodic "mini-breaks" to loosen up.
 - Low-impact stretching exercises are easy, and you can do them right at your desk!
- **Limbering up your hands, wrists and fingers is critical, because working at a computer continually taxes those muscles.**
- **One way to loosen up all of these "parts" is to first make a tight fist.**
 - Then release your grip and spread out your fingers. Repeat this 5 times for each hand.
 - Next, grasp your fingers and gently bend back your wrist. Hold this position for 5 seconds. Repeat the exercise with the other hand.
- **Computer work can cramp your neck muscles, too.**
 - Loosen them by turning your head slowly from one side to the other.
 - Hold each turn for 3 seconds.
 - Repeat the cycle 5 to 10 times.
- **Believe it or not, all of the little motions that you make with a computer mouse can add up to big fatigue in your upper back and shoulders.**
 - You can stretch out this muscle group by positioning your elbows at a 90 degree angle to your body, then pushing them back as far as they will go.
 - Hold this pose for 5 seconds.
 - Do about 5 to 10 repetitions.
- **Another way to relax your shoulders is by rolling them forward five times, in a wide, circular motion, then reversing the motion and rolling five more times. Repeat the cycle 5 to 10 times.**

- **If you're feeling the long hours at your computer in your lower back, you can stretch out those tired muscles while you're in your chair as well.**
 - Start by sitting up straight.
 - Then bend at the waist and lower your upper body slowly down to your knees.
 - Hold this position for a few seconds, then sit back up, take a deep breath and relax.
 - Doing this a few times will loosen your back muscles right up.
- **When you're sitting at a computer for prolonged periods it's easy for your leg muscles to stiffen up too.**
 - Stretch them out by grabbing your shin just below the knee and slowly pulling your leg up toward your chest.
 - Hold it for five seconds, and then do the other leg.
 - Repeat until your legs feel limber.
- **“Sitting still” at a computer isn’t a problem for your eyes though. They’re in motion all day, scanning back and forth over your monitor screen and the materials that you're working with.**
 - So you need to give them an occasional rest by focusing on an object at least 20 feet away.
 - You can get the same effect by temporarily switching to a different activity, like filing, where the focal points are different than when you are looking at your computer.
- **While you’re reducing your muscle tension and eyestrain, don't neglect the build-up of mental stress that can go with working on a computer.**
 - These often go hand-in-hand, and a great way to address them both is through "deep breathing".
 - To begin, breathe in slowly and deeply through your nose, relaxing your abdominal muscles to allow your lungs to fill completely.
 - Hold the breath for two seconds... then tighten your lips and gradually blow the air back out between them.
 - Repeat this until you feel more relaxed inside and out.

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- **Keep your workstation organized, with your materials in front of you... and avoid "over-reaching".**
- **Adjust your chair, monitor and keyboard so that you can maintain neutral body positions.**
- **Set up your monitor so it is 16 to 27 inches from your eyes, and clean the screen regularly.**
- **Take occasional breaks throughout the day to stretch tired muscles, rest your eyes and do some deep breathing.**
 - And visit your eye doctor regularly for checkups.
- **Computers are wonderful tools, that can save you both time and effort. But you need to set them up and use them properly. When you do, you can enjoy years of pain-free productivity!**