PRESENTER'S GUIDE

"COMPUTER WORKSTATION SAFETY"

Part of the General Safety Series

Quality Safety and Health Products, for Today... and Tomorrow

OUTLINE OF MAJOR PROGRAM POINTS

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The following outline summarizes the major points of information presented in the program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- **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 how they set up and use their computers can, in fact, hurt them.**
  — The risks are real, but there are things you can do to avoid pain and injury when you're working with your computer.

- **Millions of people use computers at their jobs every day. And for nearly one out of every five of them that experience has become a painful one.**
  — Repetitive motion, poor lighting and physical stress can cause conditions like carpal tunnel syndrome, computer vision syndrome and lower back pain.
  — But these problems are easy to prevent when you know what causes them and how to avoid them.

- **What's "dangerous" about a computer workstation?**
  — It can be risky when it's disorganized, or has been organized in the wrong way.

- **How we set up our workstations determines the stresses and strains we undergo as we use them over the long term, and that can have a big impact on our bodies.**

- **When the things you use with your computer are scattered randomly around your work area, it forces you to make long, awkward reaches to grab them.**
  - Over time, that can cause chronic problems such as lower back pain.

- **But you can eliminate this problem by placing the items that you use most often no more than 14-to-18 inches away from you.**
  - And when you put as many of these things as possible directly in front of you, you'll reduce the amount of twisting and turning you have to do in your chair.

- **Putting your computer on the desk in front of you may seem like a no-brainer, but if you position the monitor incorrectly, you're setting yourself up for eyestrain and neck pain.**
  - Place the monitor 16-to-27 inches from your eyes.
  - It should be set up so that you are looking down at it, at a 5-to-20 degree angle.

- **When you're referring to other documents at your workstation, position them at the same distance and height as the computer screen.**
  - That way you prevent the strain and fatigue of constantly having to turn your head back and forth and refocus your eyes.

- **Now imagine you're typing at your computer and the phone rings.**
  - It's perfectly natural to pick up the phone and cradle the hand-set between your head and shoulder, so you can continue typing as you talk.
  - But it's a bad idea, because it's a great way to strain your neck muscles.
  - The solution is to equip yourself with a hands-free telephone headset.
  - That way you can get more done without the risk of pain or injury.

- **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 avoid these conditions 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.

- **To set up your computer workstation to maximize neutral positioning, the first step is to adjust 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.
    — Your thighs should be roughly parallel to the floor and your knees about the same height as your hips, with your feet placed slightly forward.
    — The seat of your chair should give firm support to 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 the back of your chair doesn't provide enough support, you can add more by placing a lumbar cushion, a pillow or even a rolled-up towel behind your lower back.

- **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 don't touch the floor, they put strain on your spine, so use a foot-rest to support them.

- **Next, place your keyboard 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.**
    - The important thing is to keep your wrists flat, not bent up or down.
    - Keeping the wrists flat relieves pressure on the median nerve, which is where carpal tunnel syndrome begins.

- **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.

- **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, because "stirring yourself up" now and then is good for you.
    - Make small adjustments to your chair or backrest.
    - Stand up and stretch or stroll down the hall and back.

- **Computers have made many office tasks easier, yet it seems that our eyes are working harder than ever.**
    - Computer work even has its own brand of eyestrain.
    - Doctors call it "Computer Vision Syndrome," or CVS.
    - CVS symptoms include red, irritated eyes, fatigue, even neck pain and headaches.
    - But there are steps you can take to avoid them.

- **If you have your monitor positioned at the proper height and distance from your eyes you've already taken one important step in reducing the potential for eyestrain.**

- **How about cleaning? When was the last time you wiped off your computer screen? Never?**
    - If you let your monitor get dirty, and stay that way, you're just asking for eyestrain.
    - The screen's electrical charge attracts dust.
    - Unless you clean it regularly, the images on your monitor will just get harder and harder for you to see!

- **Get yourself some of the disposable wipes that are made specifically for cleaning monitor screens.**
    — Then rub the wipe gradually in small circles across the screen.
    — Avoid putting direct pressure on the surface while you do it.
    — But don't forget to power down your monitor before you start to clean.
    — Remember to clean the screen on a regular basis.

- **Your risk of Computer Vision Syndrome can also depend on the condition of your eyes themselves.**
    — If they feel itchy when you're at work and you find yourself rubbing them, the reason could be they're getting too dry.
    — That can happen easily 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 ensure that any eye conditions will be corrected promptly.
    — If you do have a problem, the doctor may be able to prescribe "computer glasses" customized to your specific needs.
    — These can be set up to allow you to see clearly for close work at the keyboard as well as to view things further away, such as your monitor.

- **The doctor can also begin building a "vision health history" for you, so you both can keep track of changes in your eyesight over time.**
    — 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 focuses stress and strain that they weren't built to handle.
    — But you can help to prevent these problems by periodically taking "mini-breaks" to loosen up.
    — These 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.**
    — Stop your keyboarding occasionally, make a tight fist, then release your grip and spread out your fingers. Repeat this 5 times for each hand.
    — Then, 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 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.

- **You can also relax your shoulders by rolling them forward five times in a wide, circular motion.**
    — Reverse the motion and roll five more times.
    — Repeat the cycle 5 to 10 times.

- **If the long hours at your computer are making your lower back uncomfortable, you can relieve those tired muscles while you're in your chair as well.**
    — Start by sitting up straight, then bending at the waist to 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.

- **During the workday, your leg muscles can also get stiff from sitting still.**
    — Stretch them out by grabbing your shin just below the knee and pulling slowly toward your chest.
    — Hold it for five seconds.
    — Then do the other leg.
    — Repeat until your legs feel limber.

- **"Sitting still" isn't a problem for your eyes. They're in motion all day, scanning back and forth over your monitor screen.**
    — So give them an occasional rest by focusing on an object at least 20 feet away.
    — Another way to rest your eyes is to temporarily switch to a different activity, like filing, that doesn't involve looking at a computer.

- **But while you're reducing your muscle tension and eyestrain, don't neglect the build-up of mental stress.**
    — The two often go hand-in-hand, and a great way to attack them both is through deep breathing.
    — To begin, breathe in slowly and deeply though 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.

- **All of the activities we've just looked at are intended to provide relief from the potential stress and strain of working at your computer.**
  - If they don't, and you continue to feel tired, or have an unexplained pain that won't go away, it's time to talk to your doctor.

* * * SUMMARY * * *

- **Avoiding injuries while you're working with a computer is really pretty simple when you follow some basic guidelines.**

- **Keep your workplace organized and avoid "over-reaching".**

- **Adjust your chair, monitor and keyboard to help you maintain neutral body positions.**

- **Position your monitor 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.**

- **Visit your eye doctor regularly for checkups.**

- **The computer is a wonderful tool that can save both time and effort. But you need to set it up and use it properly. Once you do that, you'll enjoy years of pain-free productivity!**