

PRESENTER'S GUIDE

"OFFICE ERGONOMICS"

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.

- **One size does not fit all, and sometimes that's a real "pain".**
- **Just imagine how convenient it would be if one size did fit all.**
 - For one thing, the places where we work and the things we work with, our desks, chairs, computers, and other "tools" that we use, could be designed to work well for everybody.
- **But the fact is we're all different, so efficiency, comfort and safety in the office can often be hard to come by.**
 - But it can be done... using ergonomics.
- **"Ergonomics" is the study of how the things we use can "fit" us better, so that we can work with them efficiently, comfortably and safely.**
 - It's more than just a matter of convenience, especially when applied to our workplaces.
- **When the things we work with don't fit us well, the results can be serious, involving pain, injury, lost productivity and lost wages.**
 - Office work would seem to be about as safe a job as you could find.
 - But many of the millions of people who work in offices every day have found that it can be a painful experience.
- **To understand how to prevent this, let look at just how we can be hurt by a workplace that doesn't "work" for us.**

- **The potential for suffering an injury in the office is rooted in how we perform our everyday activities.**
 - Repetitive movements, such as when we're typing on a computer keyboard, can cause significant damage over time.
 - Awkward body positions, such as we might get into if our workstation doesn't really "fit" us, can lead to trouble as well.
 - The excessive force we sometimes use when we're in a hurry and pick up the wrong tool, or use a tool incorrectly, also increases the risk of injury.
- **Ergonomic injuries occur when your body's ligaments, tendons, muscles, nerves or bones are subjected to stresses they can't adapt to.**
 - This can happen suddenly or gradually over time.
 - The result can be conditions like carpal tunnel syndrome and tendinitis (you've probably heard of them; they're two of the most common conditions developed by office workers).
- **Carpal tunnel occurs when repeating the same motion over and over inflames the muscles and ligaments in your wrist.**
 - They squeeze on the median nerve where it passes through the wrist into the hand.
 - This causes numbness, or a tingling sensation, sometimes even severe pain, in your hands and fingers.
- **Tendinitis can result from repetitive motion, too.**
 - Pain from inflamed tendons commonly affects your hands, arms, shoulders, feet or legs.
- **Lower back pain is a common condition that is caused by working in awkward postures or without enough back support.**

- **Conditions like these are called "musculoskeletal disorders", or MSDs.**
 - While they can be serious, they are also preventable.
 - In fact, using ergonomic principles can make prevention easy.
- **The top of your desk may be familiar territory, but thinking about it ergonomically enables you to see it in a whole new way.**
 - You'll notice risks of injury that you may never have known existed.
 - You'll see how rearranging your desktop, and changing how you use the "tools" on it, can help you avoid those risks.
- **Let's begin with a device that can literally be a "pain in the neck", the telephone.**
 - When we're busy, we often cradle the phone's receiver between our head and shoulder, so we can use our hands for something else.
 - Unfortunately, that's a great way to strain your neck muscles.
 - Use a hands-free telephone headset instead.
 - That lets you get more done without creating a crick in your neck.
- **How you organize the various tools and materials that you use is ergonomically important, too.**
- **When the things you need are disorganized, or scattered in various places around your office, you often have to make lots of long, awkward reaches to get at them.**
 - This "over-reaching" can put you in awkward positions that cause chronic injuries like lower back pain.
 - When you reach to the side, across your body, or backwards, you can strain the delicate group of tendons that support your shoulder, known as the rotator cuff.

- **To avoid these problems, organize the tools and materials that you use most often within easy reach, about 14 to 18 inches away.**
 - Position as many as possible right in front of you.
 - This will prevent you from having to twist and turn if you're sitting.
- **Just about anyone who has ever used a stapler has struggled to fasten more sheets of paper together than it can really handle.**
 - That's another good way to hurt yourself.
- **Don't ever "force" any tool to do more than it was designed to.**
 - Using force increases the risk and potential severity of injury.
 - Using extra "oomph" on that stapler to try and make it work could easily damage the nerves in your hand.
- **The solution? Get a bigger stapler! A heavy-duty model intended for large jobs.**
- **Another example is trying to get a paper cutter to chop through more paper than it was designed for.**
 - Instead of risking injury, make multiple cuts to smaller amounts of paper.
 - Using the cutter as it was designed to work is easier and safer.
 - You'll find it doesn't really take that much longer, either.
- **Now let's extend our ergonomic examination to the rest of our workstation.**
- **To avoid awkward postures and the musculoskeletal disorders they cause, you need to set up your desk so you can maintain "neutral positions" while you're working.**
 - A "neutral position" is a comfortable working posture in which your joints are naturally aligned, which makes everything easier on your body.

- **The first step in setting yourself up in neutral positions is to adjust the height of your chair.**
 - You need to align it properly with the height of your desk or other work surface.
 - If your chair has no armrests, adjust it so that when you rest your forearms flat on the work surface they form an angle between 90 and 120 degrees with your upper arms.
 - If your chair has armrests, adjust its height so the armrests are on the same level as your work surface.
 - This should force your elbows to form the 90-to-120 degree angle you're looking for.
- **Your chair should also provide firm support for your lower back, hips and thighs.**
 - To prevent strain on your spine, the back of your chair should fit firmly into the natural "forward curve" of your lower back (this is called "lumbar support").
 - Your thighs should be roughly parallel to the floor, your knees at about the same height as your hips, and your feet placed slightly forward.
- **If you need more lumbar support than the chair itself gives you, you can place a "lumbar cushion" behind your back, or use a pillow or even a rolled-up towel.**
- **The next step is to ensure solid support for your feet.**
 - If your feet are resting flat on the floor after you adjust your chair, you're all set!
 - If your feet are not flat on the floor, you'll need to get a footrest and adjust it to fully support them.
 - Dangling feet put a lot of stress on your spine, and that's a recipe for lower back pain.
- **Next, adjust your computer.**
 - Correct placement of your computer keyboard is crucial to preventing repetitive motion disorders like carpal tunnel syndrome and tendinitis.
 - Position the keyboard so that your wrists are flat and your fingers rest comfortably on 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 to remember here is to keep your wrists flat.**
 - You shouldn't have to bend them up or down.
 - Many keyboards are adjustable to help you with this, but you may find you'll need to use a separate wrist pad (you can even use a rolled-up towel if necessary).
 - You may have to re-adjust the height of your chair slightly to get into this position, but it's worth it.
- **This neutral positioning of your wrists relieves pressure on the median nerve, where carpal tunnel syndrome begins.**
- **When you're keying, remember to keep your elbows close to your sides, and type gently.**
 - Using too much force can be bad news at the keyboard as well.
- **You should place your mouse close to your keyboard, within easy reach.**
 - When using the mouse, you can avoid repetitive-motion problems by moving your entire arm instead of just your wrist.
- **Now it's time to adjust your monitor.**
 - Having it at the wrong height or the wrong distance from you can cause eyestrain and neck pain.
 - Position it from 16 to 27 inches away from your eyes.
 - You should be looking down at it, at a 5-to-20 degree angle.
- **Here's a tip you'll appreciate when you're referring to other documents while you're using your computer.**
 - Always position a document at the same distance and height from you as your computer screen.
 - That way you avoid the strain and fatigue of constantly moving your head up and down, and refocusing your eyes.

- **Maintaining these neutral positions should reduce physical stress and strain at your workstation... but that's not the end of the story.**
- **Our bodies are engineered for movement.**
 - Even when you've arranged your workstation perfectly, sitting still for prolonged periods just isn't healthy.
 - That's why it's a good idea to "stir yourself up" and stay limber during your workday.
- **"Limbering up" gives your body a break from the physical burdens you're normally placing on it, and reduces the uneven stresses that can lead to pain and injury.**
 - So change your position now and then.
 - Make small adjustments to your chair or backrest.
 - Or stand up and take a walk.
- **You can even do simple stretching exercises right at your desk.**
 - There are a number of "low-impact" routines that are easy to do, and focus on relaxing those trouble spots where tension and pain are likely to start.
- **If you do a lot of keyboard work, this exercise is great for your fingers, hands and wrists.**
 - Periodically, stop typing and ball your hands tightly into fists.
 - Then relax them and spread out all your fingers, fully extending them. Do this 5 times for each hand.
 - Then use one hand to gently push back on the fingers of the other hand. Hold this position for 5 seconds, and repeat with the hands reversed.
- **Here's an exercise for stiff neck muscles.**
 - Turn your head slowly from one side to the other.
 - Hold each turn for 3 seconds.
 - Repeat the cycle 5 to 10 times.

- **To stretch the muscles of your upper back and shoulders.**
 - Hold your elbows at a 90 degree angle to your body.
 - Then slowly push your elbows back as far as they will go, and hold for 5 seconds.
 - Do about 5 to 10 repetitions.

- **Rolling your shoulders in a wide circular motion is also good.**
 - Rotate them forward 5 times, then backward 5 times.
 - Repeat the cycle 5 to 10 times.

- **And here's relief for the tired muscles in your lower back.**
 - Begin by sitting up straight.
 - Bend at your 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.

- **Combining these "limbering" exercises with good workstation design can address many potential ergonomic problems.**
 - But we can get even better results by looking a little further.

- **Ergonomics is crucial to building a healthier and safer workplace for yourself.**
 - But the process doesn't begin and end with arranging things in your workplace and occasionally stretching.
 - We can enjoy even greater wellness on the job and off by living healthier, and by taking better care of ourselves both physically and mentally.

- **Consider the issue of workplace stress.**
 - It affects us on both mental and physical levels.
 - Studies have shown that stress makes your muscles more tense, which makes injury more likely.
 - You can fight back against stress with relaxation exercises that reduce both types of tension.

- **An easy and effective one is "deep breathing".**
 - Sit up straight and fold your hands loosely in your lap.
 - Slowly take a deep breath through your nose, relaxing your abdominal muscles so your lungs can fill freely.
 - Hold the breath for two seconds, then purse your lips and blow the breath gradually back out between them.

- **Make a habit of doing deep breathing three or four times during a workday, perhaps after stretching, or whenever you feel stressed.**
 - To make your deep breathing even more effective, you can add a mental component to the exercise. It's called "mind clearing".
 - As you breathe, focus your thoughts on peaceful, relaxing images, and let your stress evaporate.

- **On the physical side, regular aerobic exercise will make you healthier and more resistant to illness and injury across the board.**
 - Whether you walk, jog, bike or play basketball (whatever you enjoy) work up a sweat and increase your heart rate for at least half an hour at a time, three to four times a week.
 - You'll improve the health of your heart, lower your blood pressure, reduce your stress and even build some muscle, all of which will help you avoid injuries.

- **Eating healthier helps, too.**
 - Well-balanced, low-fat, low-salt meals will make you feel better and lower your risk of injury.

- **And get rid of those unhealthy lifestyle habits.**
 - Smoking, drinking and using drugs all work against your mental and physical wellness, and can make you more susceptible to injury.
 - Your doctor and other healthcare advisers can guide you in developing a lifestyle that will make you less prone to any kind of illness or injury, while making you feel better, too!

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- **There are many ways you can use ergonomics to help you work better, and safer.**
- **When the things we use at work don't "fit" us well, it can put unnecessary strain on our bodies.**
- **Organizing the tools and materials on your desktop, and using them correctly, is key to avoiding ergonomic injuries.**
- **You can work more comfortably, and more safely, if you maintain "neutral positions".**
- **Moving around during the workday, and doing occasional stretching exercises, can help to prevent strains and pain.**
- **Taking good care of yourself both mentally and physically can help to prevent workplace injuries as well.**
- **Even though one size doesn't fit all, ergonomics shows you how to arrange your workplace so that it does fit you, and lets you work more comfortably, efficiently and injury-free!**