[Ergonomic Training - Office Ergonomics]

Target Audience: All internal staff

Learning Objectives:

Cover the topic of office ergonomics from hazards to precautions so that you can avoid developing work-related MSDs. By the time the session is over, you should be able to:

1. Recognize the importance of ergonomics.
2. Define MSDs.
3. Identify ergonomic risk factors.
4. Recognize MSD symptoms.
5. Set up your workstation to minimize stress and strain.
6. Perform tasks safely, and avoid musculoskeletal injuries and illness.

Seat Time: Approx. 30 minutes

Outline:

- Welcome / Overview / Objectives Navigation slide
- What Is Ergonomics, and Why Is It Important to You?
- What Are MSDs?
- What Are the Risk Factors?
- What Are the Signs and Symptoms of MSDs?
- What Will the Pain Be Like?
- Are There Any Outward Signs?
- What Are Some of the Most Common MSDs?
- What Should You Do if You Experience Symptoms?
- Computer Workstation: Head and Shoulders
- Computer Workstation: Elbows and Wrists
- Computer Workstation: Legs and Feet

- Chair Adjustments: Seat Surface
- Chair Adjustments: Back and Arms
- Computer Monitor
- Neutral Keyboard Position
- Using a Mouse
- Using a Laptop
- Break Time
- Exercises
- Focus on Your Posture
- Key Points to Remember (Summary)
- Ergonomic Evaluations Available
- Knowledge Checks - two (one in each lesson) with a final 5 question quiz (passing rate 80%, unlimited)
- Congratulations

Directions: This module will be Closed Captioned and audio will be provided by female voiceover, Images will be similar to ones shown below from PowerPoint and will be provided by Free Clip Art, Freepik and CAISO. Please leave any notes under each slide section for me to address and edit all of your concerns.

Module Resources/References: [Office Ergonomics in the Resources tab] *Correct link below to add resource mentioned in PPT

https://records.oa.caiso.com/sites/ops/CO/safety/Records/Web%20posts/Ergonomics/Ergonomics_Home_Office_Humantech.pdf#search=Office%20ergonomics

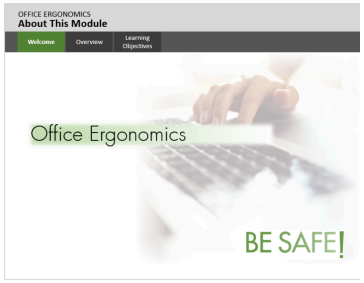
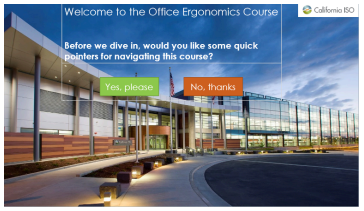
Will learners have access to the next button at all times or will it appear timed with VO to ensure they are not moving ahead? Ask Chantele

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- **Palette colors: used sparingly**
- 

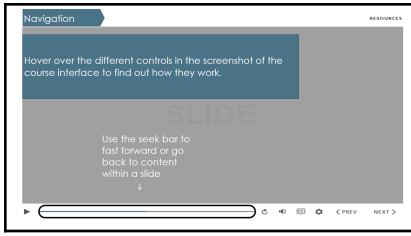
*Palette colors should be minimalistic. White or black backgrounds only. Shapes should not have brand colors, but numbers can. Use little bullets and more drop down menus (click on shapes, etc.)
- All selected states are gray in color.

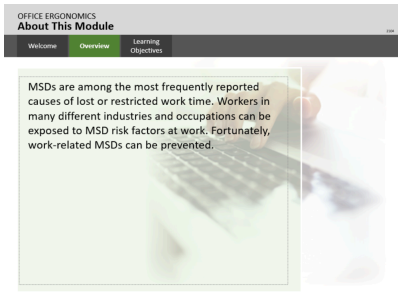
- Logo appears on the Welcome page - top right.
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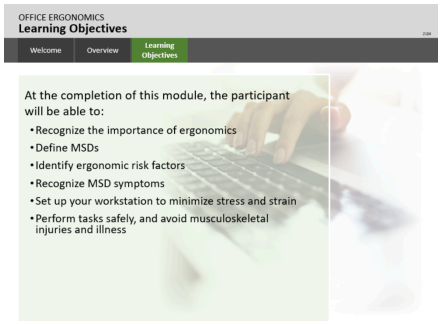
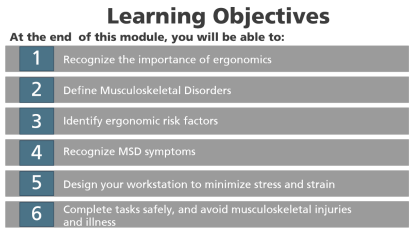
- Menu should be hidden.
- No AVATARS
- VO is Alana B. from Well Said Labs

Slide [1.1]/ Menu Title: *[Welcome]*			Objective: [#]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original Image:  New Image:  	Welcome to the Office Ergonomics Course Before we dive in, would you like some quick pointers for navigating this course? Yes, please No, thanks	[*Script Text*] Welcome to the Office Ergonomics computer based training course, where safety is our first priority. Before we dive in, would you like some quick pointers for navigating this course? Click the yes button for the navigation slide or the no button to continue.	Question and button answers timed in with VO. Next arrow is at the bottom right.
Notes: 5/19: Square buttons, image should be on the entire screen as in example of Bids and Schedules. Should not look like a PPT. Modern not minimalistic			

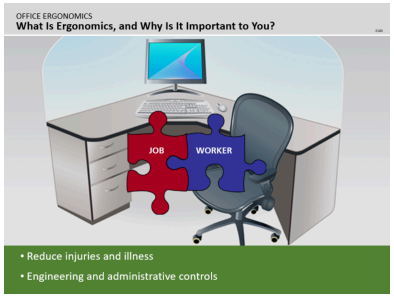
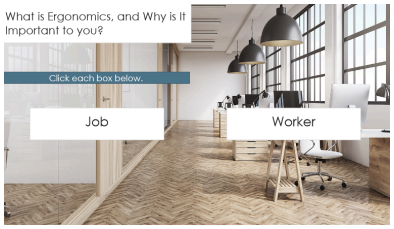
Slide [1.2 with layers]/ Menu Title: *[Navigation]*			Objective: [NA]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
See Image Below. Slide layers will open showing each feature with description.	[**Navigation**] Hover over the different controls in the screenshot of the course interface to find out how they work.	Narrator: Hover over the different controls in the screenshot of the course interface to find out how they work. Click the next arrow button when you are ready to begin the course.	Next and previous arrow buttons will be at the bottom right of the screen.

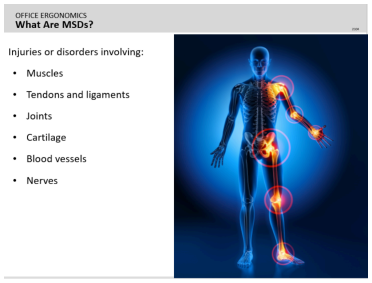
			

Slide [1.3]/ Menu Title: *[Overview]*			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  New image:  Each button will open to a layer showing the overview of the course.	[**Overview**] 1, 2, and 3 buttons Layer 1: MSDs are among the most frequently reported causes of lost or restricted work time. Layer 2: Workers in many different industries and occupations can be exposed to MSD risk factors at work. Layer 3: Fortunately, work-related MSDs can be prevented.	Narrator: [Click each of the numbered boxes below for an overview of the course. *According to the Occupational Safety and Health Administration, or OSHA, work-related musculoskeletal disorders, or MSDs, are among the most frequently reported causes of lost or restricted work time. Workers in many different industries and occupations can be exposed to MSD risk factors at work. Fortunately, work-related MSDs can be prevented. By understanding basic ergonomic principles and applying them to your job, you can minimize MSD risk factors, avoid strains on your body, and reduce your risk of injury.* *Click on the next arrow button to view the objectives of the course.*]	Selected buttons open to their perspective layers and the VO is timed with each box as they open. Next and previous arrow buttons will be at the bottom right of the screen.
Notes: image behind this - modern not minimal or boring			

Slide [1.4]/ Menu Title: *[Learning Objectives]*			Objective: [All]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  New:  	[**Learning Objectives**] At the end of this course, you will be able to: ● Recognize the importance of ergonomics ● Define MSDs ● Identify ergonomic risk factors ● Recognize MSD symptoms ● Design your workstation to minimize stress and strain ● Complete tasks safely, and avoid musculoskeletal injuries and illness	[*The main objective of this session is to cover the topic of office ergonomics from hazards to precautions so that you can avoid developing work-related MSDs. By the time the session is over, you will be able to:* • *Recognize the importance of ergonomics.* • *Define Musculoskeletal Disorders* • *Identify ergonomic risk factors.* • *Recognize MSD symptoms.* • *Design your workstation to minimize stress and strain.* • *Perform tasks safely, and avoid musculoskeletal injuries and illness.* Click next to continue]	Next and previous arrow buttons will be at the bottom right of the screen.
Notes:			

Slide [1.5]/ Menu Title: *[Lesson One: What is Ergonomics, and Why Is It Important to You?]*			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Title and two boxes with puzzle pieces. Bulleted information will appear inside the pieces.	**[What is Ergonomics, and Why Is It Important to You?**]	[*Ergonomics is designing a job to fit the worker so the work is safer and more efficient. Click each box below to learn more.Implementing*	Learner will click on the worker and job boxes to see more information timed

Original image:  New:  	Click each box below Job Worker	*ergonomic solutions can make employees more comfortable and increase productivity. It puts people first, taking account of their capabilities and limitations. Ergonomics aims to make sure that tasks, equipment, information and the environment fit each worker. Click next to continue.*]	with the VO. Next and previous buttons will be at the bottom right of the screen.
Notes: No markers, content shows at bottom in boxes that float up.			

Slide [1.6]/ Menu Title: *[What Are MSDs?]*			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
See original image below.  New:	[**What Are MSDs?**] Injuries or disorders involving: • Muscles • Tendons and ligaments • Joints • Cartilage • Blood vessels • Nerves	[Click on each of the hotspots to learn more about MSDs. *MSDs are disorders involving the nervous system or soft tissue in the fingers, wrists, elbows, shoulders, neck, back, and knees. MSDs are caused by stress and strain due to activities that you perform on the job (keyboarding, sitting for long hours in an awkward*	Learner clicks on each of the circles to list MSD's while the VO is narrating the screen. Next and previous buttons will be at the bottom right of the screen.

		*position, and so on). Click on each of the hotspots to which of the affected body tissues are included.* *• Muscles,* *• Tendons and ligaments,* *• Joints,* *• Cartilage,* *• Blood vessels, and* *• Nerves.* Click next to learn about the risk factors involved.]	
Notes:			

Slide [1.7]/ Menu Title: *[What Are the Risk Factors?]*			**Objective: [3]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  New:  Layers contain specific images:	[**What Are the Risk Factors?**] Repetition Awkward postures Contact stress Force and vibration Do any of these ergonomic risk factors apply to you?	[*There are five risk factors for MSDs. Prolonged exposure to any of these risk factors in your job puts you at risk of an MSD. Repetition, awkward postures, and contact stress are the most common risk factors for office workers. Less common risk factors include force and vibration. Click on each of the risk factors for some examples.* *• Repetition might include daily and lengthy use of a keyboard and mouse.* *• Awkward postures might include extending arms to type or sitting forward with shoulders hunched.* *• Contact stress might include soft tissue damage by contact with a hard surface, such as leaning against a counter or pressing your wrists against the edge of your desk while you type.* *• Force and vibration are usually more associated with production or construction jobs. But force might be an issue for an office worker who does a*	Each word floats in timed in with VO. Next and previous buttons will be at the bottom right of the screen.

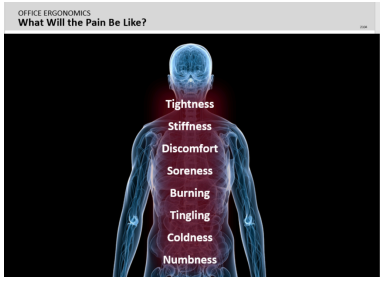
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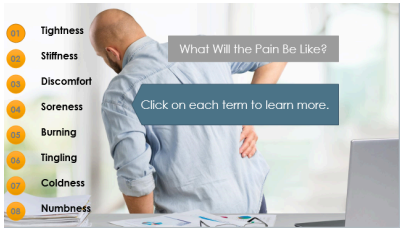


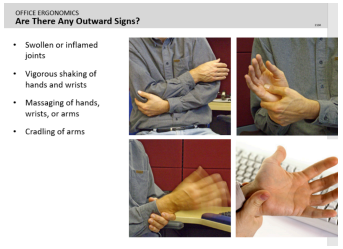



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<td>lot of lifting of heavy files or office supplies, spends a lot of time pushing or pulling heavy file drawers, or performs other activities that require the use of force, which stresses specific muscle groups.
Think about your job. Do any of these ergonomic risk factors apply to you? When you are finished answering that question,
click next to learn about the signs and symptoms of MSDs.</td>
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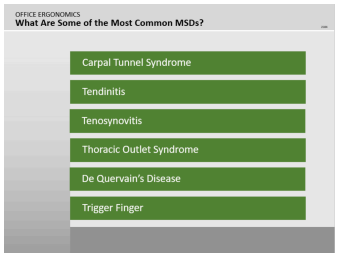
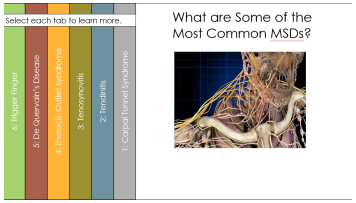
Slide [1.8]/ Menu Title: *[What Are the Signs and Symptoms of MSDs?]*			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  New:  	[**What Are the Signs and Symptoms of MSDs?**]	[*For office workers, the most common symptom that an MSD might be developing is pain or swelling in the:* • *Hands, wrists, or forearms;* • *Fingers;* • *Elbows;* • *Shoulders;* • *Neck; or* • *Back* Click the next arrow to see the type of pain you may experience.]	Boxes around images will highlight timed with VO. Next and previous buttons will be at the bottom right of the screen.
Notes:			

Slide [1.9]/ Menu Title: *[What Will the Pain Be Like?]*			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  	[**What Will the Pain Be Like?**] **Tightness** **Stiffness** **Discomfort**	[*The type of pain you experience will vary depending on the type of MSD and the type of injury you have suffered. Click on each term to learn more.* • *Tightness might occur in muscles or tendons from overuse.* • *Stiffness might occur from damage to joints or cartilage.*	Terms are on the left of the screen. Learner will click on each to hear VO description. Next and previous buttons will be at the bottom right of the screen.

New:  	**Soreness** **Burning** **Tingling** **Coldness** **Numbness**	*• Discomfort can occur from damage to any of the nerves or soft tissues.* *• Soreness may occur from overused muscles or tendons.* *• Burning may occur from damage to blood vessels or nerves.* *• Tingling can occur from damage to nerves.* *• Coldness may occur from damage to blood vessels.* *• And numbness might occur from damage to nerves or blood vessels.* *Have you ever experienced any of these symptoms over a prolonged period of time?* *Such symptoms could be a sign of a developing MSD. Click next for noticeable outward signs.*]	
Notes:			

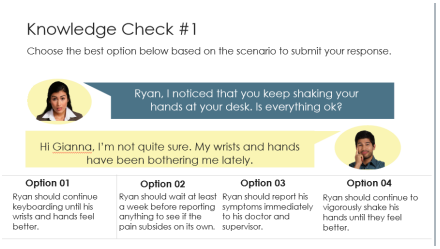
Slide [1.10]/ Menu Title: *[Are There Any Outward Signs?]*			**Objective: [4]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  **New:**	[**Are There Any Outward Signs?**] ● **Swollen or inflamed joints** ● **Massaging of hands, wrists, or arms** ● **Vigorous shaking of hands and wrists** ● **Cradling of arms**	[*You might notice that you or a co-worker is developing an MSD by outward signs.* *• Swollen or inflamed joints;* *•Unconscious massaging of hands, wrists, or arms; or* *• Vigorous shaking of hands and wrists during work in an effort to restore circulation;* *• Cradling of arms to give extra support or to hold the arm in a position that reduces pain.*	Terms will appear timed with VO. Next and previous buttons will be at the bottom right of the screen.

Slide [1.10]/ Menu Title: *[Are There Any Outward Signs?]*			Objective: [4]
		Click next to find out what the most common MSDs are]	
Notes:			

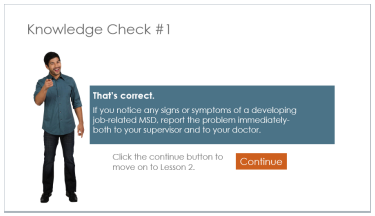
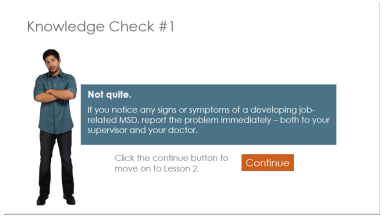
Slide [1.11]/ Menu Title: *[What Are Some of the Most Common MSDs?]*			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  **New image:** 	[**What Are Some of the Most Common MSDs?**] Carpal Tunnel Syndrome Tendinitis Tenosynovitis Thoracic Outlet Syndrome De Quervain's Disease Trigger Finger	Select each tab to learn more about some of the most common MSDs. ● [*Carpal tunnel syndrome is probably the best known to office workers. Carpal tunnel involves compression of the median nerve in the wrist. The median nerve provides the sense of touch for the fingers, where it passes through the wrist and into the hand. Carpal tunnel is usually the result of repetitive motion such as keyboarding.* ● *Tendinitis is the inflammation of a muscle or tendon caused by repeated overuse.* ● *Tenosynovitis is one of the two membranes of a tendon sheath that covers a tendon. Tenosynovitis is usually the result of excessive motion.* ● *Thoracic outlet syndrome involves compression of nerves and blood vessels as they travel from the neck, under the collar bone, through the armpit, and down into the arm. This MSD is often attributed to repetitive arm extension and slouching.* ● *De Quervain's disease is an inflammation of the tendon sheath of the thumb. It's usually caused by forceful gripping or twisting motions of the hand. This*	Terms will be placed in an accordion view and will be clickable timed with VO. When each one is clicked, the VO will begin the description. Each accordion will open with an image to show an example. Next and previous buttons will be at the bottom right of the screen once accordions have all been reviewed.

		MSD is more common among production workers than office workers. • *Trigger finger also involves tendons and tendon sheaths in the fingers and is associated with using tools with hard handles. Again, this MSD affects production workers more than office workers.* Click the next arrow to find out what you should do if you experience symptoms]	
Notes:			

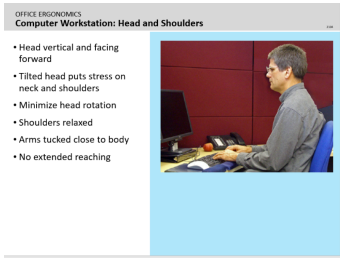
Slide [1.12 a, b, and c]/ Menu Title: *[What Should You Do if You Experience Symptoms?]*			**Objective: [4 & 5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:  New image: 	**[What Should You Do if You Experience Symptoms?]**	• If you notice any signs or symptoms of a developing job-related MSD, report the problem immediately-both to your supervisor and to your doctor. • Early reporting allows you to begin taking steps to proper treatment, beginning with a medical evaluation. The sooner you begin treatment, the more likely you are to make a complete recovery, and the sooner you can get rid of the pain and discomfort. • Early reporting also allows us, with your help, to take steps toward reducing or even eliminating risk factors that are causing the MSD. That way, the problem won't become worse, and you won't risk reinjury. Ask your supervisor about the correct procedures for reporting MSDs at your workplace. Click next for your first knowledge check.]	Rectangles with titles will fly in one at a time from top and the VO will describe each. They will remain on the slide until the end. Next and previous button will be on screen.

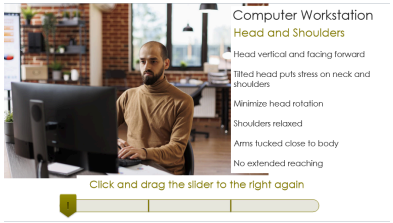
Slide [1.13]/ Menu Title: *[Knowledge Check]*			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Female avatar is in a scenario with another male avatar that looks uncomfortable.  	[Knowledge Check #1] Ryan, I noticed that you keep shaking your hands at your desk. Is everything ok? Hi Gianna, I'm not quite sure. My wrists and hands have been bothering me lately. Option 1: Ryan should continue keyboarding until his wrists and hands feel better. Option 2: Ryan should wait at least a week before reporting anything to see if the pain subsides on its own. Option 3: Ryan should report his symptoms immediately to his doctor and his supervisor. Option 4: Ryan should continue to vigorously shake his hands until they feel better.	Knowledge Check #1, Multiple Choice. Read the scenario between Ryan and Gianna and click on the best option below to submit your response.	Submit button clickable once choice is made and will take the learner to the correct/incorrect layer.

Slide layers [1.13a, b, c, and d]/ Menu Title: *[Knowledge Check]*			
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation/ Interaction:**

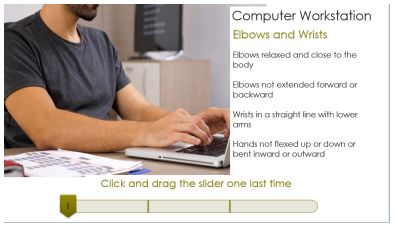
Ryan is standing with arms folded. Text appears in a box next to him for all incorrect responses.   Ryan is smiling and pointing his finger out front for the correct response. Ryan's pose is the same as a and b answers above.	[**Knowledge Check #1**] Incorrect Layer: Incorrect Layer Correct Layer 1.12c Option 3: Ryan should report his symptoms immediately to his doctor and his supervisor. Incorrect Layer: 1.12d Option 4: Ryan should take more breaks from typing at his desk.	Narrator: [Not quite, If you notice any signs or symptoms of a developing job-related MSD, report the problem immediately-both to your supervisor and to your doctor. Click the continue button to move on to Lesson 2.] Same as above That's correct. If you notice any signs or symptoms of a developing job-related MSD, report the problem immediately-both to your supervisor and to your doctor. Click the continue button to move on to Lesson 2.	Continue button is on the feedback layers.

		Same as a and b answers above.	

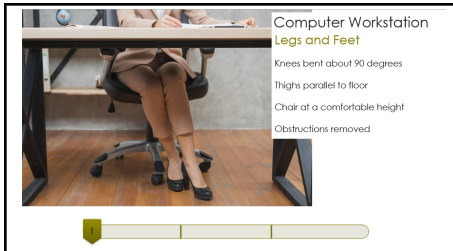
Slide [2.1]/ Menu Title: *[Lesson 2: Computer Workstation]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  **New image:**  	[**Computer Workstation: Head and Shoulders**] • Head vertical and facing forward • Tilted head puts stress on neck and shoulders • Minimize head rotation • Shoulders relaxed • Arms tucked close to body • No extended reaching	[You can set up your computer workstation to reduce stress on your body and decrease your risk of developing an MSD. Click and drag the slider to the right for more information on how to position your head and shoulders. • When working on the computer, keep your head vertical and facing forward. • Holding your head off balance—for example, leaning it to the side—puts stress on your neck and shoulders. • Minimize head rotation by putting your work—the information you're using while you type—in front of you. • Make sure your shoulders are relaxed and in a neutral position. Keeping your shoulders raised or hunched for long periods puts stress on your muscles, blood vessels, and nerves. • Also, keep your arms tucked in close to your body and hanging relaxed when not working or typing. • Avoid extended reaching. Objects on your desk that you use frequently should be within easy reach. Repetitive reaching all day with your arms or leaning forward all the time to reach items can contribute to MSDs. Click and drag the slider to the right again for information on how to care for your elbows and wrists.	Learner will click on parts of the body using pulsating speaker markers. VO will be timed with animation. Next and previous arrow buttons will be at the bottom right of the screen.

Slide [2.1a]/ Menu Title: *[Computer Workstation]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same image from main slide layer 2.1 	[**Computer Workstation: Head and Shoulders** • Head vertical and facing forward • Tilted head puts stress on neck and shoulders • Minimize head rotation • Shoulders relaxed • Arms tucked close to body • No extended reaching	You can set up your computer workstation to reduce stress on your body and decrease your risk of developing an MSD. Click and drag the slider to the right for more information on how to position your head and shoulders. • When working on the computer, keep your head vertical and facing forward. • Holding your head off balance—for example, leaning it to the side—puts stress on your neck and shoulders. • Minimize head rotation by putting your work—the information you're using while you type—in front of you. • Make sure your shoulders are relaxed and in a neutral position. Keeping your shoulders raised or hunched for long periods puts stress on your muscles, blood vessels, and nerves. • Also, keep your arms tucked in close to your body and hanging relaxed when not working or typing. • Avoid extended reaching. Objects on your desk that you use frequently should be	Learner will click on parts of the body using markers. VO will be timed with animation. Next and previous buttons will be at the bottom right of the screen.

		within easy reach. Repetitive reaching all day with your arms or leaning forward all the time to reach items can contribute to MSDs. Click and drag the slider to the right again for information on how to care for your elbows and wrists.	

Slide [2.1b]/ Menu Title: *[Computer Workstation]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same image from main slide layer 2.1 	[**Computer Workstation: Elbows and Wrists**] ● Elbows relaxed and close to the body ● Elbows not extended forward or backward ● Wrists in a straight line with lower arms ● Hands not flexed up or down or bent inward or outward	[You also need to take care of your elbows and wrists while working on the computer. • Elbows should be positioned comfortably, hanging in a relaxed fashion below the shoulders and not extended outward from the body. • Elbows should not extend forward or backward from the shoulders. • Wrists should be kept in a straight line with the lower arms. • Hands flexed down or up, or bent inward or outward, will put pressure on the nerves and soft tissues in the wrists and could result in carpal tunnel syndrome. Click and drag the slider one last time to the right for information on how to position your legs and feet.	Learner will click on parts of the body using markers. VO will be timed with animation. Next and previous buttons will be at the bottom right of the screen.

Slide [2.1c]/ Menu Title: *[Computer Workstation]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

	[**Computer Workstation: Legs and Feet**] ● Knees bent about 90 degrees ● Thighs parallel to floor ● Chair at a comfortable height ● Obstructions removed ● Feet flat on the floor or on a footrest	[The position of your lower body while you work on the computer is also important in preventing MSDs. • Your knees should be comfortably bent about 90 degrees. The angle doesn't have to be exact, as long as you're comfortable. • Your thighs should be approximately parallel to the floor. • Adjust your chair at a comfortable height to allow your knees and legs to be comfortable. • Remove any obstructions under your workstation to your legs and feet so that you can maintain a comfortable working position. • Your feet should be resting flat on the floor or on a footrest. Although it's good to change the position of your feet occasionally, you don't want to be on your toes or heels for extended periods. Click next for proper chair adjustments.]	Learner will click on parts of the body using markers. VO will be timed with animation. Next and previous buttons will be at the bottom right of the screen.

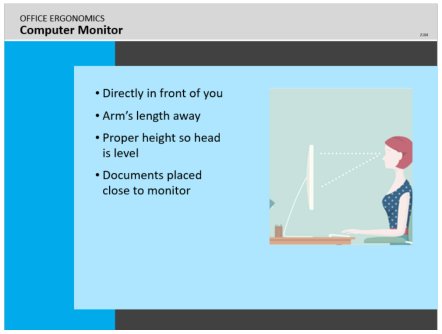
Slide [2.2a]/ Menu Title: *[Chair Adjustments]*			**Objective: [5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

See image below. 	[**Chair Adjustments: Back and Arms**] ● Backrest with adjustable angle and lumbar support ● Armrest broad and cushioned to support shoulders, elbows, and wrists ● Armrests independently adjustable in height and side to side	A comfortable, ergonomically designed chair is critical when working at a computer workstation for extended periods every day. Click on the back and arms button for proper chair adjustments. ● To prevent stress and strain, your chair needs to be properly adjusted. The backrest is very important because you need adequate back support when sitting and working for extended periods. You should be able to adjust the angle of the backrest relative to the seat so that you can lean back and forward or sit straight up. ● The backrest must also have adequate lumbar support. The lumbar region is your lower back. ● Armrests provide support for your shoulders, elbows, and wrists. They should be broad, cushioned, and comfortable. But armrests should not be too cushioned, because when working a mouse or keyboard, you want to keep your wrist straight and work the mouse with movement from your elbows. If the armrest is too cushioned, you won't be able to slide your elbow back and forth to move the mouse. ● Armrests should be independently adjustable both in height and side to side so that they can fit you properly.	Same chair from the main slide layer. Chair parts will be described as they are hovered over and timed with VO. Next and previous buttons will be at the bottom right of the screen.

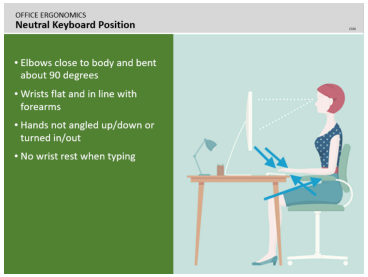
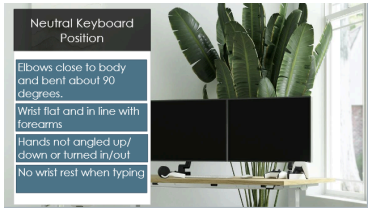
		• Think about your workstation chair. Is it properly adjusted for your body to keep you comfortable while you work? If you answered no, go ahead and adjust your chair now. When you're ready, click the Seat Surface Button to continue.	

Slide [2.2b]/ Menu Title: *[Chair Adjustments]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  **New image:**  	[**Chair Adjustments: Seat Surface**] **Comfortable** **Slightly wider than hips/thighs** **Proper length** **Adjustable height** **Adjustable tilt**	• The seat surface should be properly padded and comfortable, even after sitting for 30 to 60 minutes. The seat should also be at least an inch wider than your hips and thighs. • To determine the proper length of the seat, sit with your back against the back support. In this position, the front edge of the seat should be about an inch from the back of your knee. Also, the front edge should be contoured so that you're not subjecting the back of your legs to contact stress with a hard corner of the front of the seat. • The chair height must be adjustable so that your feet can rest on the floor or on a footrest. • Some seat surfaces can also be tilted to help maintain a balanced posture. You may, for example, prefer a seat that is tilted slightly forward, so that	The Ergonomic Chair rolls in from the right and swivels to face front. Parts of the chair will glow as they are timed with VO. Chair rolls in from the left of the screen. Terms fade in timed with VO's descriptions. Next and previous buttons will be at the bottom right of the screen.

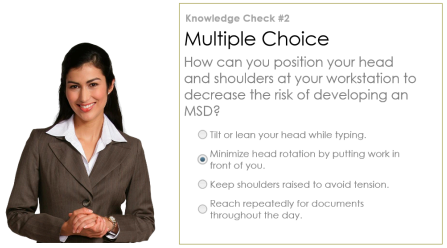
		you can easily reach the keyboard and supplies on your workstation. Or you may want the seat surface tilted back to help you stay seated against the back support. Click next to learn more about preventing stress and strain.]	

Slide [2.3]/ Menu Title: *[Computer Monitor]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  New image:  	[**Computer Monitor**] • **Directly in front of you** • **Arm's length away** • **Proper height so head is level** • **Documents placed close to monitor**	• [The position of your computer monitor is also important in avoiding MSDs. The monitor should be positioned directly in front of you so that you don't have to turn your head to look at it. • The monitor should also be about an arm's length away to prevent eye strain. Sit back in your chair as you would while working and reach toward the monitor. You should be able to touch it with your fingertips. • The monitor must be adjusted for height as well. With your head level, your eyes should be aligned with a point 2 to 3 inches below the top of the screen. You shouldn't have to tilt your head up or bend your neck down to see the screen. If necessary, tilt the monitor back slightly to prevent glare. • Place any documents you are using in a document holder and position the holder as close to the monitor as possible. This will prevent unnecessary turning of your	Image of actual person in front of screen with double sided arrows that will fade in pointing from them to monitor timed with VO as words fade in. Next and previous buttons will be at the bottom right of the screen.

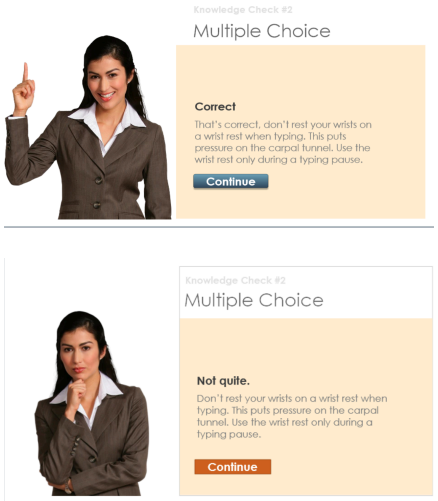
		head to read documents related to your computer activity. ● Now, think about your own computer monitor. Is it properly positioned to avoid stress and strain on your neck and shoulders? Again, feel free to adjust your monitor now, before clicking next.]	

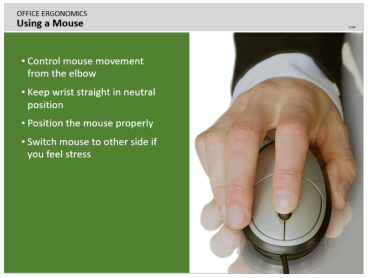
Slide [2.4]/ Menu Title: *[Neutral Keyboard Position]*			Objective: [5]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  New image:  	[**Neutral Keyboard Position**] ● Elbows close to body and bent about 90 degrees ● Wrists flat and in line with forearms ● Hands not angled up/down or turned in/out ● No wrist rest when typing	*[Keeping a neutral keyboard position while typing is one of the most important things you can do to prevent carpal tunnel syndrome and other MSDs.* *• Keep your elbows close to your body and bent about 90 degrees while using the keyboard. Avoid reaching toward the keyboard or allowing your elbows to extend away from your sides.* *• Adjust the height of your keyboard so that your wrists are flat and in line with your forearms.* *• Your hands should not be angled up or down or turned in or out. Working in these positions would put stress on nerves and blood vessels.* *• Don't rest your wrists on a wrist rest when typing. This puts pressure on the carpal tunnel. Use the wrist rest only during a typing pause.* *Think about the position of your elbows, wrists, and hands as you work on the computer. Do you always maintain a neutral position to prevent injuries?*	Image of actual person in front of screen with arrows pointing from their face timed with VO and as words fade in. Next and previous buttons will be at the bottom right of the screen.

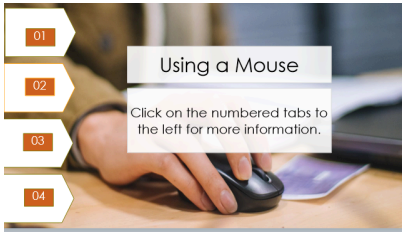
		Take a moment to ensure that you are maintaining a neutral keyboard position. Then, click next to continue to the second knowledge check.	

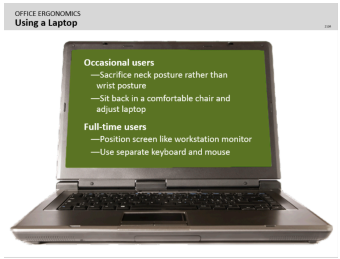
Slide [2.5]/ Menu Title: *[Knowledge Check #2]*			**Objective: [5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Multiple Choice Question Question Four Choices 	**Multiple Choice Question** How can you position your head and shoulders at your workstation to decrease the risk of developing an MSD? 1. Tilt or lean your head while typing. 2. Minimize head rotation by putting work in front of you. 3. Keep shoulders raised to avoid tension. 4. Reach repeatedly for documents throughout the day.	Knowledge Check #2 Multiple Choice Choose the best answer below and then click submit.	Checkmark button is at the bottom of the screen but cannot be clicked until the learner chooses appropriate response.

Slide [2.5a and b layers]/ Menu Title: *[Knowledge Check #2]*			**Objective: [5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Multiple Choice Question **2.7 a Correct** **2.7b Incorrect**	**Multiple Choice Question** Which of the following might be considered ergonomic concerns?		Continue button is on the screen underneath the explanation on both layers.

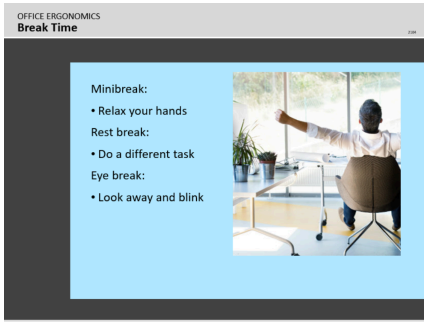
	2.7a: That's correct, don't rest your wrists on a wrist rest when typing. This puts pressure on the carpal tunnel. Use the wrist rest only during a typing pause. 2.7b: You did not select the correct response. Don't rest your wrists on a wrist rest when typing. This puts pressure on the carpal tunnel. Use the wrist rest only during a typing pause.	2.7a: That's correct, don't rest your wrists on a wrist rest when typing. This puts pressure on the carpal tunnel. Use the wrist rest only during a typing pause. Click the continue button. 2.7b: Not quite. Don't rest your wrists on a wrist rest when typing. This puts pressure on the carpal tunnel. Use the wrist rest only during a typing pause. *Click the continue button.*	

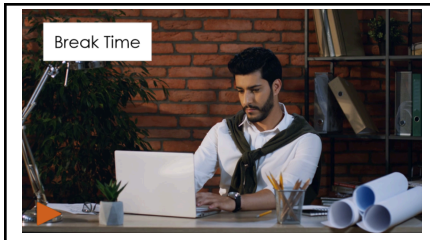
Slide [2.6]/ Menu Title: *[Using a Mouse]*			**Objective: [5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image: 	[**Using a Mouse**] ● Control mouse movement from the elbow ● Keep wrist straight in neutral position	*[Most people consider the keyboard to be the main contributor to computer-related MSDs. However, the mouse, when used improperly, can also contribute to injuries. Click on each of the numbered tabs to the left for more information.* *• Control the mouse movement from your elbow. Controlling the mouse with wrist movements will put strain on your nerves, blood vessels, and other soft tissue in your wrist.*	Learner will click the mouse and bullet points will appear. Next and previous buttons will be at the bottom right of the screen.

New image:  	• Position the mouse properly • Switch mouse to other side if you feel stress	*• Keep your wrist straight in the neutral position as you manipulate the mouse. Move or turn your elbow slightly to make mouse movements.* *• Also position your mouse properly. Here's how: Sit back in your chair and relax your elbows. Lift your mouse hand up, pivoting your elbow, until your hand is just above elbow level. This is where your mouse should be located. You should not have to reach or extend your arm or body to use the mouse.* *• If you start to feel stress in your mouse arm or elbow over time, switch the mouse to the other side. It may take a little time to get used to manipulating the mouse with your other hand, but the change can relieve the stress in your normal mouse arm and elbow.* *Do you use your mouse correctly to avoid developing an MSD?* *If not, go ahead and adjust your mouse prior to clicking next.*	

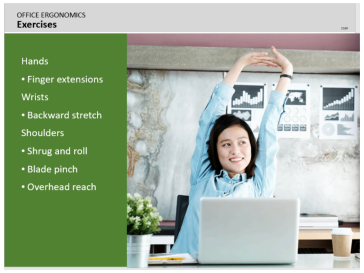
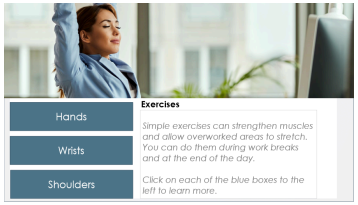
Slide [2.7 a and b]/ Menu Title: *[Using a Laptop]*			**Objective: [5]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  **New image:**	[**Using a Laptop**] Occasional users ❖ Sacrifice neck posture rather than wrist posture ❖ Sit back in a comfortable	*[Working on a laptop can present ergonomic problems because the monitor and keyboard are not separated, which means you can usually achieve either good neck and head posture while working or good wrist and hand posture, but not both. Click on the occasional users button.* *• If you use a laptop occasionally or for short periods, it's best to sacrifice neck posture rather than wrist posture.*	Learner will see Occasional users on computer screen. Each description will fade in timed with VO. Learner will then see Full-time users and

	chair and adjust laptop Full-time users ❖ Position screen like workstation monitor ❖ Use separate keyboard and mouse	• *Sit back in a comfortable chair and position the laptop, so that you can maintain a neutral wrist position. Angle the screen to avoid neck strain as much as possible. Click on the full time users button to continue.* • *If you use a laptop exclusively, position the laptop screen as you would a workstation monitor: directly in front of you and at a comfortable height.* • *Use a separate keyboard and mouse to prevent strain while keyboarding and mousing for long periods of time. Click next to learn how to incorporate breaks into your day.]*	each description will fade in timed with VO. Next and previous buttons will be at the bottom right of the screen. All info will remain on screen until the end of the slide.

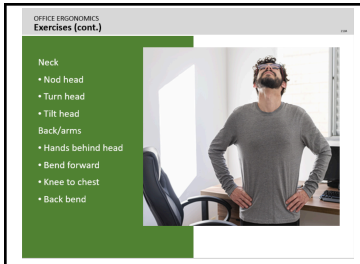
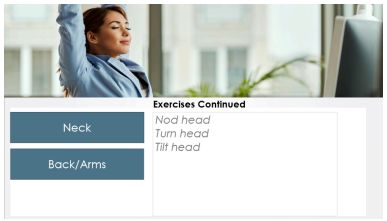
Slide [2.8 a, b, c]/ Menu Title: *[Break Time]*			**Objective: [6]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image:  New image is a video clip on base layer:	**[Break Time main layer]** Minibreak: • Relax your hands Rest break: • Do a different task Eye break: • Look away and blink	*[Taking enough of the right kinds of breaks from keyboarding is another important way to prevent MSDs.* Click on the orange play button below for information on mini breaks. • *Minibreaks are not breaks from work. Rather they are very short breaks from using typing or mousing muscles. During a minibreak, allow your hands to relax in a flat and straight posture. Use the wrist rest to relax your wrists for a few moments.* Click on the orange play button again for information on rest breaks.	Short video begins with man turned away from his desk, blinking and stretching his wrists. The numbers 1,2,3 will be selected and darken in color timed with the VO. There will also be a play button at the bottom that shows the description. Next and previous buttons will be at the bottom right of the screen.

 Layers a, b, and c:   		• *Rest breaks are longer periods in which you actually take a break from work. During a rest break, get up from your workstation and move around a little. Get a drink of water, or do a different task for a few minutes. You should take a short break from computer work at least every hour.* Click on the orange play button one last time for information on eye breaks. Then, click next to continue. • *You also need to rest your eyes periodically. Take an eye break every 20 minutes or so, and look away from the monitor for 20 seconds at something 20 feet across the room. This allows your eye muscles to relax. Also, blink rapidly for a few seconds to refresh your eyes.* *When typing, you might not blink as much as normal, and your eyes can become dry and sore.* *If you haven't done so already, take a mini break now by relaxing your hands and wrists while looking away from your monitor.*	

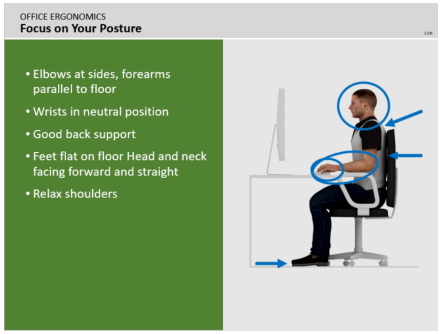
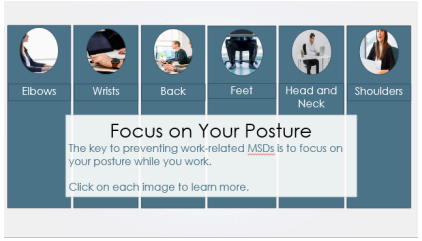
Slide [2.9 a, b, c]/ Menu Title: *[Exercises]*			**Objective: [6]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

Original image:  **New image**  	Hands ● Finger extension Wrists ● Backward stretch Shoulders ● Shrug and roll ● Blade pinch ● Overhead reach	*[Here's another way to help prevent MSDs. Simple exercises can strengthen muscles and allow overworked areas to stretch. You can do them during work breaks and at the end of the day. Click on each of the blue boxes to the left to learn more.* *• To exercise your hands, try finger extension. Make a fist, then extend and spread your fingers.* *• To stretch out wrists, hold your arms out in front of you and bend wrists up and down.* *• To relieve tight shoulder muscles, shrug your shoulders and then roll your shoulders forward and back.* *• Here's another shoulder exercise called the blade pinch. With elbows out, move your arms back to bring your shoulder blades together.* *• And one more for the shoulders. Reach your arms over your head and stretch, bending from side to side.* *Go ahead and take a moment to try each of these exercises before continuing on.]*	User clicks on each gray box to learn more about exercises for hands, neck, back and arms. Timed with VO. Next and previous buttons will be at the bottom right of the screen.

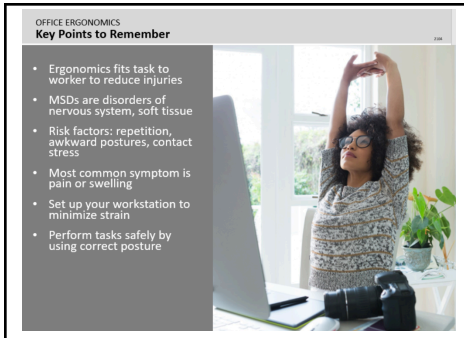
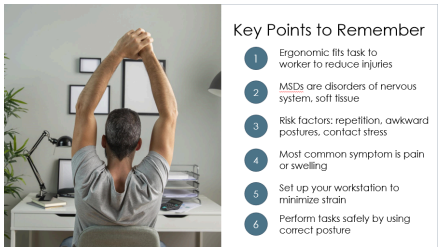
Slide [2.10 and b]/ Menu Title: *[Exercises Cont'd]*			**Objective: [6]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:	[Exercises Continued] Neck ● Nod head	*[Now let's look at some exercises for the neck, back, and arms. Click on the blue buttons to the left to begin.* *To stretch your neck:*	Next and previous buttons will be at the bottom right of the screen.

 **New:** 	• Turn head • Tilt head Back/arms • Hands behind head • Bend forward • Knee to chest • Back bend	*• Do the head nod. Just nod your head up and down a few times.* *• Then turn your head slowly from side to side.* *• And then tilt your head gently toward each shoulder. Click the back and arms button once you have completed your neck stretches.* *For your back and arms:* *• Begin with your hands behind your head. Then bring your shoulder blades together.* *• Now another one for the back and arms. Sit in a chair and bend forward and try to touch the floor.* *• Next, also while sitting, grasp one knee with both hands and pull it up toward your chest. Switch knees and repeat.* *• Finally, stand up, place your hands on your hips, and bend backwards slowly and gently.* *• Go ahead and take another moment to exercise your neck, back and arms. When you're ready, click next to begin focusing on your posture.]*	

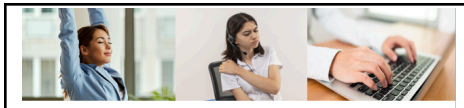
Slide [2.11 a, b, c, d, e, and f layers]/ Menu Title: *[Focus on Your Posture]*			**Objective: [6]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
See original image below.	[**Focus on Your Posture**] • Elbows at sides, forearms	*[The key to preventing work-related MSDs is to focus on your posture while you work.* *Click on each of the images to learn more.* *Remember to:*	Each image of posture will be a tabbed interaction. Learner will click on the ovals and be taken to a slide layer that has the

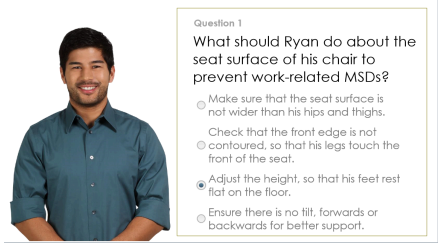
 **New image will be a tabbed interaction shown below:** 	parallel to floor ● Wrists in neutral position ● Good back support ● Feet flat on floor Head and neck facing forward and straight ● Relax shoulders	*• Keep your elbows at your sides and your forearms parallel to the floor or tilted slightly downward to prevent nerve compression at the elbow.* *• Keep your wrists in a neutral position while keyboarding to prevent stress to the carpal tunnel.* *• Choose a comfortable chair with good back support, and position yourself close to the keyboard so that you don't have to extend your arms.* *• Keep your feet flat on the floor or on a footrest.* *• Position your monitor and work documents so that you can keep your head and neck straight and facing forward, with minimal head turning while working.* *• And finally, relax your shoulders.* *For more information about correct sitting posture and setting up your workstation, select Office Ergonomics from Resources at the top right of the screen. Click next to wrap up the course.]*	description of how to focus on posture while working. VO will be timed with each layer opening. Next and previous buttons will be at the bottom right of the screen.

Slide [2.12]/ Menu Title: *[Summary: Key Points to Remember]*			**Objective: [All]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original:	[**Key Points to Remember**] ● Ergonomics fits task to worker	*[Here are the main points to remember from this session on office ergonomics:* *• The goal of ergonomics—the science of fitting the task to the worker—is to reduce the risk of injuries.*	Key points will fade in timed with VO.

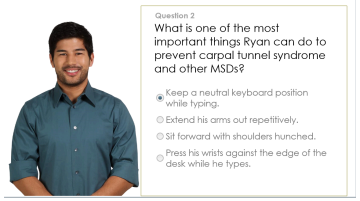
 **New:** 	to reduce injuries ● MSDs are disorders of nervous system, soft tissue ● Risk factors: repetition, awkward postures, contact stress ● Most common symptom is pain or swelling ● Set up your workstation to minimize strain ● Perform tasks safely by using correct posture	*• MSDs are injuries and disorders involving the nervous system or soft tissue in the fingers, wrists, elbows, shoulders, neck, and/or back caused by stress and strain due to activities that you perform on the job.* *• Repetition, awkward postures, and contact stress are common ergonomic risk factors for office workers.* *•For office workers, the most common MSD symptom is pain or swelling in the hands, wrists, or forearms; fingers; elbows; shoulders; neck; or back.* *• Set up your workstation to minimize strain by positioning your monitor directly in front of you and using ergonomic computer equipment.* *• Perform tasks safely by using correct posture—relaxed shoulders, arms close to the body, wrists straight, knees at a 90 degree angle, and feet flat on the floor.* *This concludes the Office Ergonomics training session. Click next to continue to the quiz introduction.]*	Previous and next arrow buttons at the bottom of the screen.

Slide [3.1]/ Menu Title: *[Quiz Introduction]*			**Objective: [ ]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Quiz Introduction with 3 pictures from the course across the middle of the page.	Quiz Introduction You need a score of at least 80% (4 out of 5	You are now ready for the course quiz. The following 5 questions are from both lessons.	Instructions will be timed with VO and will fade in. Next and previous arrow buttons at the bottom of the screen.

 Quiz Introduction › You need a score of at least 80% (4 out of 5 answered correctly) in order to pass this course. › You can retake the quiz until you achieve a passing score.	answered correctly) in order to pass this course. You can retake the quiz until you achieve a passing score.	You need a score of at least 80% or (4 out of 5 answered correctly) in order to pass this course. You can retake the quiz until you achieve a passing score. Click next to begin.	

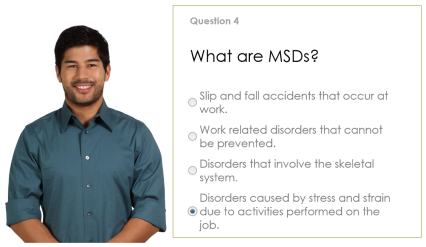
Slide [3.2]/ Menu Title: *[Hidden from Menu: Question 1]*			**Objective: [6]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
 Question 1 What should Ryan do about the seat surface of his chair to prevent work-related MSDs? Make sure that the seat surface is not wider than his hips and thighs. Check that the front edge is not contoured, so that his legs touch the front of the seat. Adjust the height, so that his feet rest flat on the floor. Ensure there is no tilt, forwards or backwards for better support.	Question #1 What should Ryan do about the seat surface of his chair to prevent work-related MSDs? ● Make sure that the seat surface is not wider than his hips and thighs. ● Check that the front edge is not contoured, so that his legs touch the front of the seat. ● Adjust the height, so that his feet rest flat on the floor. ● Ensure there is no tilt, forwards or backwards for better support.	Question #1 Multiple Choice Choose the best answer and then click submit to record your response.	The learner will click submit after answering the question. No incorrect or correct responses will be shown. The learner will be taken to question #2.

Slide [3.3]/ Menu Title: *[Hidden from Menu: Question 2]*	**Objective: [5]**

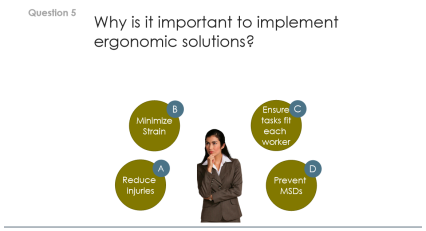
Visual / Display:	Slide Text:	Narration / Voiceover:	Animation / Interaction:
Ryan avatar is standing and facing front smiling. Plain background behind him.  	Multiple Choice Question #2 What is one of the most important things Ryan can do to prevent carpal tunnel syndrome and other MSDs? • Keep a neutral keyboard position while typing. • Extend his arms out repetitively • Sit forward with shoulders hunched. • Press his wrists against the edge of the desk while he types.	Question #2 Multiple Choice Choose the best answer and then once again, click submit.	The learner will click submit after answering the question. No incorrect or correct responses will be shown. The learner will be taken to question #3.

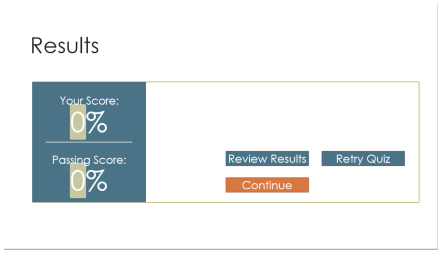
Slide [3.4]/ Menu Title: *[Hidden from Menu: Assessment Question 3]*			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Drag and drop interaction  	Question #3 Drag and Drop Interaction Drag each risk factor to the correct image. 1. Repetition 2. Awkward postures 3. Contact stress 4. Force and vibration Images shown: 1. female office worker massaging neck 2. person holding wrist over a keyboard 3. lifting of heavy files / or office supplies	Question #3 Drag each risk factor to the correct image, then click submit.	The learner will click submit after answering the question. No incorrect or correct responses or feedback will be shown. The learner will be taken to question #4.

	4. leaning against a counter		

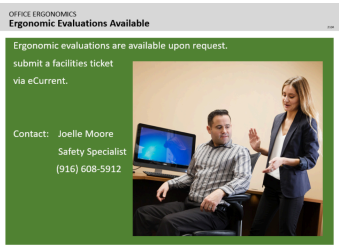
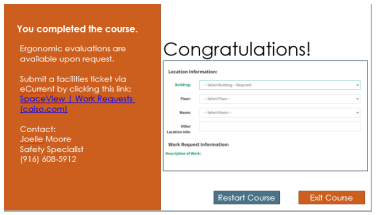
Slide [3.5]/ Menu Title: *[Hidden from Menu: Assessment Question 4]*			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
	Question #4 What are MSDs? ● Slip and fall accidents that occur at work. ● Work related disorders that cannot be prevented. ● Disorders that involve the skeletal system. ● Disorders caused by stress and strain due to activities performed on the job.	Question #4 Multiple Response *Choose the most applicable response(s)and click submit for the final question.*	The learner will click submit after answering the question. No incorrect or correct responses will be shown. The learner will be taken to the results slide.

Slide [3.6]/ Menu Title: *[Hidden from Menu: Assessment Question 5]*			Objective: [1]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Gianna (female avatar) is facing front and cropped. **Multiple Choice Question is at the top middle with answer choices surrounding her in circles.**	Question #5 Why is it important to implement ergonomic solutions?	Question #5 Multiple Response	The learner will click submit after answering the question. No incorrect or correct responses will be

	• Minimize strain • Reduce injuries • Ensure tasks fit each worker • Prevent MSDs	Choose the most applicable responses and click submit for your results.	shown. The learner will be taken to question #5.

Slide [3.7a and b]/ Menu Title: *[Hidden from the main menu: Results]*			**Objective: [NA]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
	**Results Slide** Your Score _____ Passing Score__% **Success Layer:** Congratulations, you passed! The Review Results button and Continue buttons are underneath. **Failure layer:** Sorry, you did not pass. Score percentage in the middle. Review Results and Retry Quiz buttons at the bottom	*Success Layer:* *[Thank you for completing the quiz. Congratulations, you passed. You can review your results by clicking on the review results button. If you are satisfied with your results, please click the continue button to finish the module.]* *Failure layer: Thank you for completing the quiz. Unfortunately, you did not pass.*	Review Quiz button and Continue button are side by side and available from the beginning of the slide layer.

		You can review your results by clicking on the review quiz button. When you are ready to try again, please click on the retake quiz button.	

Slide [3.8]/ Menu Title: *[Congratulations]*			**Objective: [NA]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Original image: New image:   Restart and Exit buttons bottom right	**Office Ergonomics** Congratulations! You completed the course. Ergonomic evaluations are available upon request. Submit a facilities ticket via eCurrent by clicking this link: SpaceView | Work Requests (caiso.com) Contact: Joelle Moore Safety Specialist (916) 608-5912 Restart Course Exit Course	*Congratulations on completing the Office Ergonomics course. Now you have the knowledge you need to perform tasks safely, and avoid work related musculoskeletal injuries and illness.* *Ergonomic evaluations are available upon request. Submit a facilities ticket via eCurrent using the link underline in blue or contact: Joelle Moore, Safety Specialist at area code 916 608-5912.* *You may now click the Exit button to leave the course or the restart button to review the course again.*	All words will be on the slide the entire time. Exit button will appear timed with VO.

Link to facilities ticket with screenshot SpaceView | Work Requests (caiso.com)			