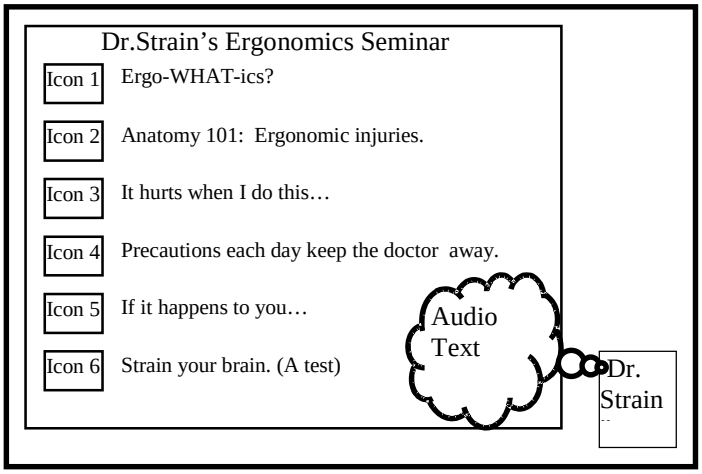
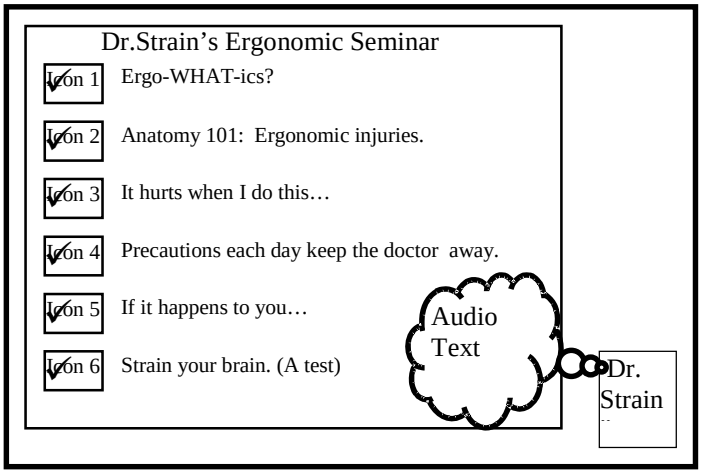
Lesson 0/Frame 1



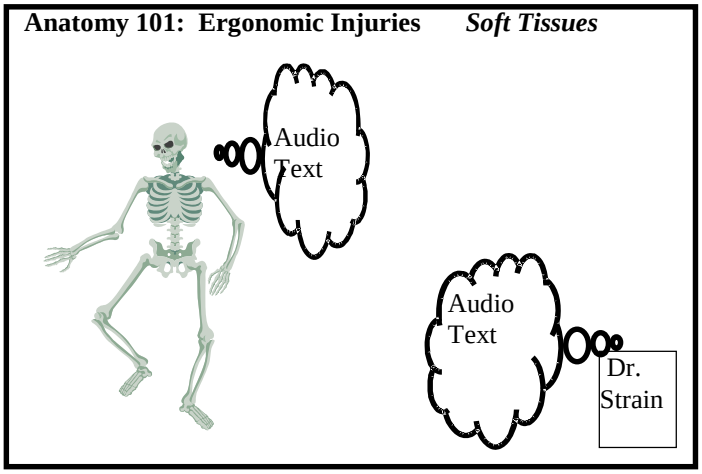
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Background screen is a scientific/anatomy laboratory. Within the laboratory are monitors, a wall-mounted x-ray film reader, some human anatomy models, and a projection screen rolled down from the ceiling. At the bottom of the screen (and every screen in the course are standard navigational controls (e.g. "back" and "next"). The icons for these are pointing skeleton hands or skeleton fingers. On the side of the screen (either left or right) is a still image of Dr. Strain, our eccentric scientist/narrator, holding a laser pointer or some similar device. When Dr. Strain speaks (in a German accent) six CLICKABLE icons appear on the projection screen in sync with the Audio. Icon 1: Illustration of the profile of a person sitting at a desk. Icon 2: Illustration of a skeleton with red hot spots. Icon 3: Illustration of a bent elbow, with a bruised, injury spot. Icon 4: Illustration of an apple with the word "Precautions" carved in it. Icon 5: Illustration of a bandaged hand holding a manual that says "Reporting and the Law". Icon 6: Illustration of a brain with a red "thinking spot". As Dr. Strain talks, audio text from next column appears in the Thought Cloud, and the title of each lecture (lesson) appears next to the icon. When user clicks on a lesson icon they go to the following lessons: Icon 1>Lesson 1/Frame 1 Icon 2>Lesson 2/Frame 1 Icon 3>Lesson 3/Frame 1 Icon 4>Lesson 4/Frame 1 Icon 5>Lesson 5/Frame 1 Icon 6>Lesson 6/Frame 1 Each lesson should be checked off when completed. NOTE TO PROGRAMMING: When Thought Cloud is full and it is necessary for the user to click "NEXT" place a text prompt that says "CLICK NEXT TO CONTINUE" at the bottom of the Thought Cloud. Do this throughout program.	***Dr. Strain**:* Ahhh. Welcome, welcome. I'm Dr. Strain, and ***you*** are in for quite a treat indeed! I have a whole series of lectures lined up for you in my Ergonomics Seminar. Ergo-WHAT-ics you ask? Well that, I'll answer in my first lecture. Then we'll cover the basics of ergonomic injuries in my Anatomy 101 lecture. And, we'll study symptoms and risks associated with ergonomic injuries in one of my favorite lectures-"It hurts when I do this." Then I'll give you some medical advice in "Precautions each day, keep the doctor away". In addition, we'll go over some important regulations and reporting procedures for ergonomic injuries on the job in "If it happens to you." And finally, you'll get to "Strain your brain" in my seminar finale. That's where you'll demonstrate you've been paying attention to my lectures. So listen up! For best results I recommend that you take my lectures in order, ending with the test. When you're ready, click on an icon.

Lesson 0/Frame 2



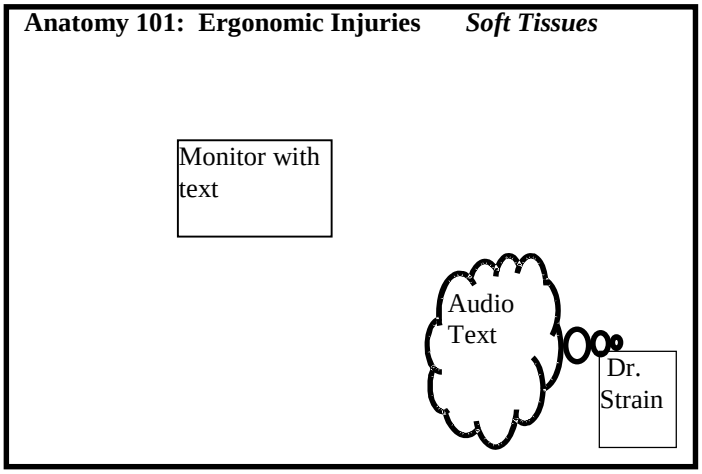
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Same graphics from previous frame. When all six lessons are checked off, show the Audio Text to the right, in Dr. Strain's Thought Cloud.	***Dr Strain:*** Very good, very good! You survived my seminar. I can't tell you how impressed I am! Now get out there and put this information to use in your job and at home. Go on! Scat! Scram! Scaboodle! And remember, precautions each day really do keep the doctor away!

Lesson 2/Frame 1



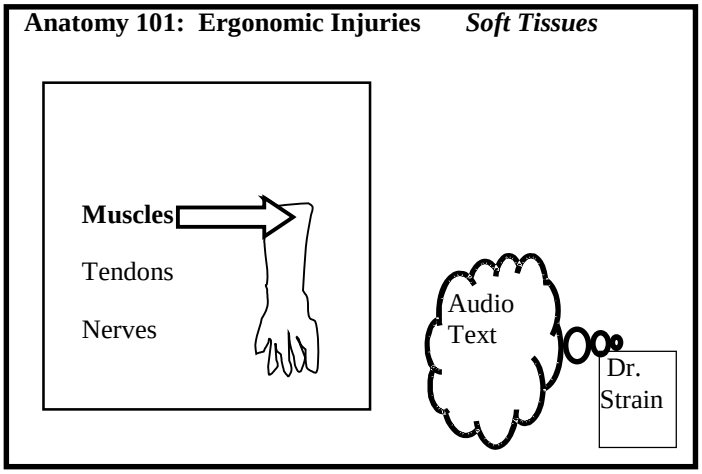
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Student arrives here after selecting Icon 2 from the main menu. Background screen is the same laboratory from the main menu. All audio text appears in Dr. Strain's thought cloud at beginning of frame. Animated, kind of comical, skeleton hanging in laboratory is suddenly lit up as though in a spotlight, as other objects are blacked out. Skeleton puts his hands on his hips and tilts his head inquisitively when Dr. Strain says "how is the human body affected". When Dr. Strain says "we'll answer that in this little anatomy lesson" the skeleton starts jiggling on his hanger as though he is dancing. A Thought Cloud appears above his head as he starts singing. At the end of his song his leg falls off at the hip bone, making him say "uh-oh". When Dr. Strain says "repetitive or awkward movement", the Skeleton hangs himself upside down in an awkward position to reach for the leg that has fallen off.	***Dr. Strain**:* So, just how is the human body affected by ergonomics, or more specifically Cumulative Trauma Disorders resulting from ***poor*** ergonomics? We'll answer that in this little anatomy lesson. ***Skeleton (in a jazzy voice sings):*** My knee bone's connected to my leg bone, my leg bone's connected to my, uh –oh… ***Dr. Strain (clears his throat nervously)**:* As I was saying. We're going to talk about CTDs…that specific group of illnesses that occur when soft tissues, particularly around joints, are damaged through repetitive or awkward movement.
NEXT = next frame	

Lesson 2/Frame 2



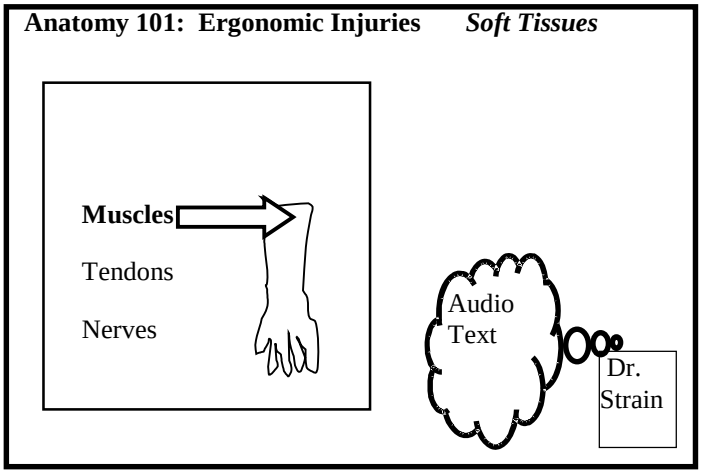
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Background screen is the same laboratory. Now the scientific monitor in the laboratory is in the spotlight. All audio text appears in Dr. Strain's thought cloud at beginning of frame. The words **R**epetitive **M**otion **I**njuries, **R**epetitive **S**train **I**njuries and **M**usculo**s**keletal **D**isorders show up in the monitor when Dr. Strain says each one. The appropriate acronym letters should be in bold as shown here.	***Dr. Strain**:* By the way…some of the alternate names given to CTDs are a little more obvious. For instance CTDs may be called RMIs or Repetitive Motion Injuries, RSIs or Repetitive Strain Injuries, or MSDs…Musculoskeletal Disorders. Whew, that's quite a mouthful…but the concept is really not so complex. Let's dissect it, shall we?
NEXT = next frame	

Lesson 2/Frame 3



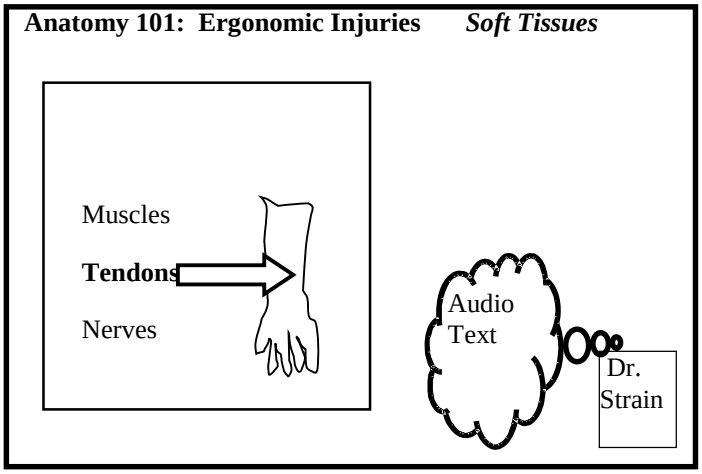
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Background screen is the same laboratory from the main menu. The spotlight is on the projection screen, which now shows a human arm model with visible muscles, tendons, nerves and bones. All audio text appears in Dr. Strain's thought cloud at beginning of frame. The text "Muscles", "Tendons" and "Nerves" appears one by one when Dr. Strain mentions them.	***Dr. Strain**:* What we know so far is that CTDs typically affect the soft tissues around joints. That includes muscles, tendons, and nerves.
NEXT = next frame	

Lesson 2/Frame 4



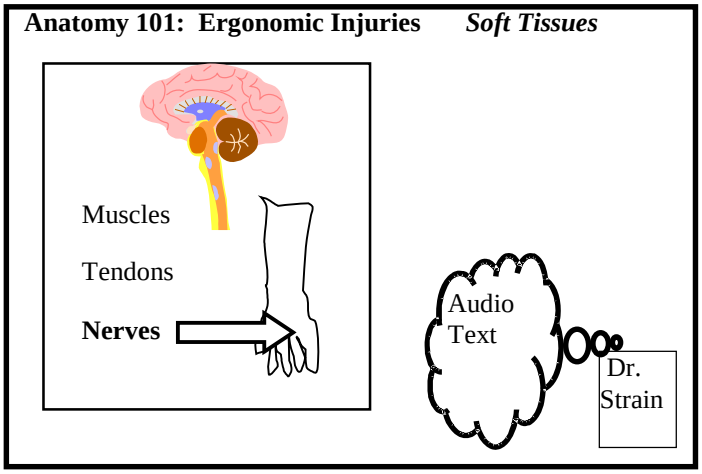
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Same graphics from previous frame, but now the word “Muscles” is highlighted and an arrow points to the muscles in the human arm model. The muscles in the human arm model ANIMATE as though they are contracting and relaxing. All audio text appears in Dr. Strain’s thought cloud at beginning of frame.	***Dr. Strain**:* Muscles are soft tissue fibers that contract and relax. They provide the **power** of movement.
NEXT = next frame	

Lesson 2/Frame 5



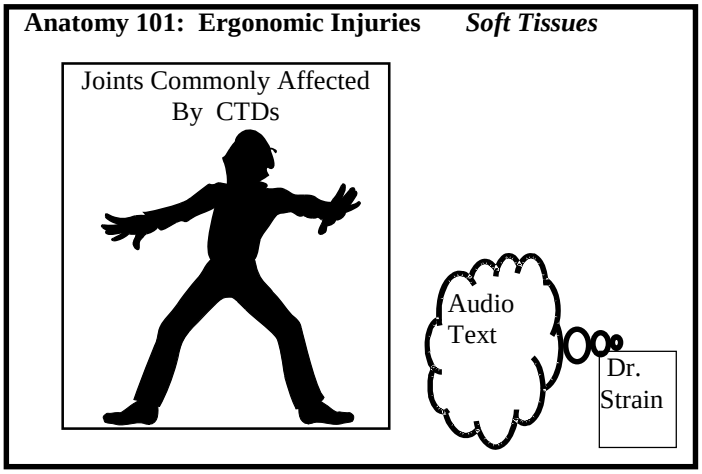
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Same graphics from previous frame, but now the word “Tendons” is highlighted and an arrow points to the tendons in the human arm model. The muscles in the human arm model continue to ANIMATE as though they are contracting and relaxing. And now the tendons begins to move, and the finger bones start to bend. All audio text appears in Dr. Strain’s thought cloud at beginning of frame.	***Dr. Strain**:* Tendons are tough bands that connect muscles to bone. When a muscle is contracted, the attached tendon moves the bone, acting like a cable between the muscle and the bone.
NEXT = next frame	

Lesson 2/Frame 6



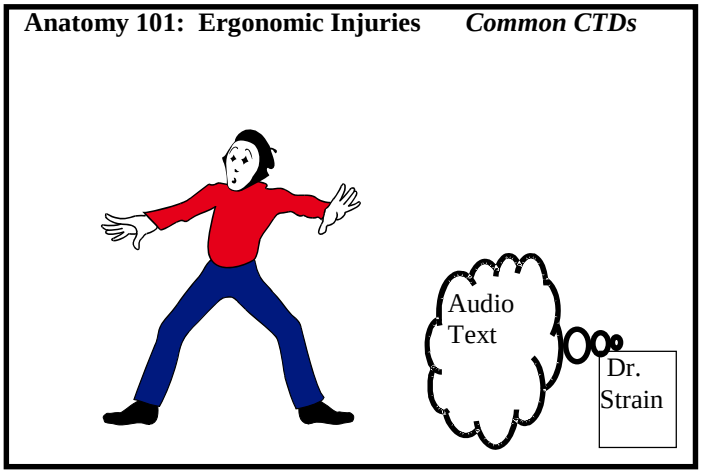
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Same graphics from previous frame, but now the word "Nerves" is highlighted and an arrow points to the nerves in the human arm model. The muscles, tendons, and fingers continue to ANIMATE as in the previous frame, but now a nerve in the hand has a red "aching" glow. A brain appears and arrows point between the hand and brain as though sending nerve signals. All audio text appears in Dr. Strain's thought cloud at beginning of frame.	***Dr. Strain**:* Nerves are strands that deliver messages between the brain and the body. Such messages can be signals to move, or feelings of pain…perhaps from a CTD.
NEXT = next frame	

Lesson 2/Frame 7



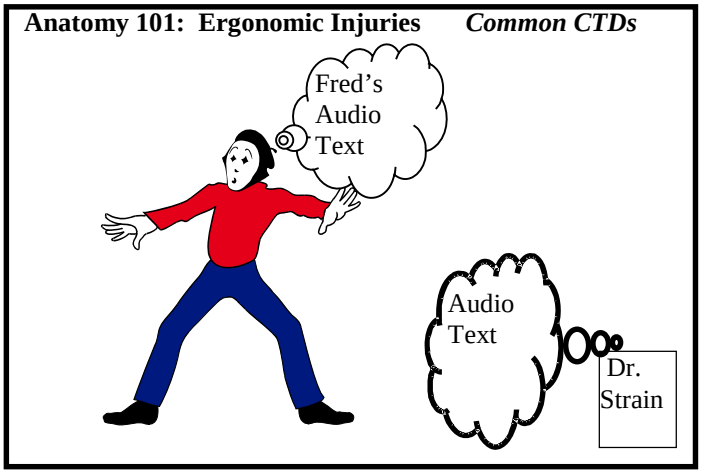
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Projector screen remains down, but now spotlight is on Dr. Strain's patient, Fred Fallapart, who is standing, behind the screen. Fred's outline can be seen and there is TEXT on the screen as shown above. A red laser light appears on each of the following joints when mentioned by the doctor: neck, shoulders, elbows, hands, wrists, lower back, and knees (for legs). All audio text appears in Dr. Strain's thought cloud at beginning of frame.	***Dr. Strain**:* Muscles, tendons and nerves are present in joints throughout the body. But the ones we're most interested in are those that are most affected by CTDs. And those are typically in the joints at the neck, shoulders, elbows, hands, wrists, back, and legs.
NEXT = next frame	

Lesson 2/Frame 8



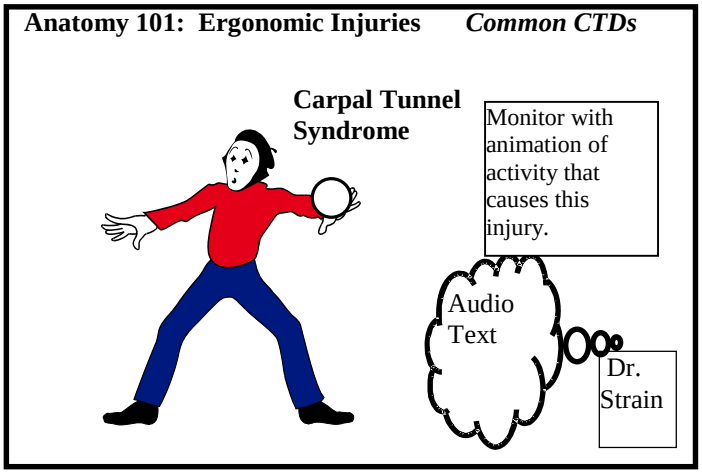
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
The projector screen from previous frame is now up but Fred Fallapart remains in the same position and is now in the spotlight All audio text appears in Dr. Strain's thought cloud at beginning of frame.	***Dr. Strain**:* To give you a better understanding of the CTDs that attack these areas, you're invited to help me examine one of my regular patients, Fred Fallapart. Fred has agreed to be on exhibit…so to speak… because he hopes others can learn from his ergonomic mistakes. And boy, oh boy, has he made some doozies.
NEXT = next frame	

Lesson 2/Frame 9



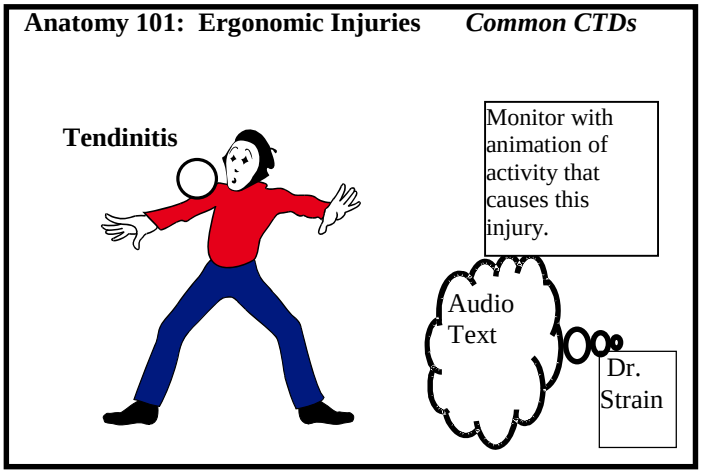
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
Fred Fallapart is still standing there waiting to be examined. Red hot spots can be seen in the following areas: wrist, shoulder blade, elbow, knee, hand/wrist, neck, lower back.. Fred Fallapart's audio text appears in his Thought Cloud at beginning of frame. Dr. Strain's audio text appears in his thought cloud at beginning of frame. When user clicks on a hot spot go to the following frames: Wrist = Lesson 2/Frame 9A Shoulder = Lesson 2/Frame 9B Elbow = Lesson 2/Frame 9C Knee = Lesson 2/Frame 9D Hand/Wrist = Lesson 2/Frame 9E Neck = Lesson 2/Frame 9F Lower Back = Lesson 2/Frame 9G	***Fred Fallapart**:* Tell me about it Doc. Just today alone I'm having pain or discomfort in my shoulder, elbow, wrist, knee, hand, neck, **and** back. I'm pretty sure I tweaked my back lifting something and as for my elbow…well, that could be from tennis…and my wrist hurts because- ***Dr. Strain**:* Slow down there, Freddie-boy. We'll take care of all of your problems, one by one. Now, if one of you kind viewers would simply click on Fred's problem areas, we can start diagnosing him right away. Go ahead, click on an area now!
When user returns to this menu after receiving each diagnosis do the following: Retain all graphics, but do not replay the Audio. Put the name of the diagnosis on the menu next to the proper hot spot, as follows: Wrist hot spot: **Carpal Tunnel Syndrome** Shoulder hot spot: **Tendinitis** Elbow hot spot: **Epicondylitis** Knee hot spot: **Tenosynovitis** Hand/Wrist hot spot: **Ganglion Cyst** Neck hot spot: **Neck/Shoulder Fatigue** Lower back hot spot: **Back Fatigue**	
When all symptoms have been diagnosed remove all Audio Text and place new Audio Text from right column, inside Dr. Strain's Thought Cloud. NEXT = Lesson 0/Frame 1	***Dr. Strain**:* Very good! We've completed our diagnosis…and as predicted, Fred is definitely falling apart. But not to worry Fred, CTDs are treatable, and future ones are preventable. By the end of this seminar you'll see how. Click NEXT to continue the seminar.

Lesson 2/Frame 9A



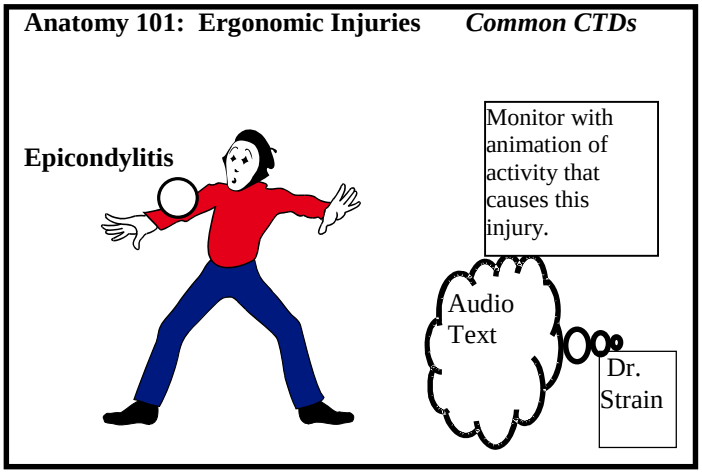
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting wrist hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous frame, but all hot spots are gone. Now there is an enlarged graphic replacing the wrist hot spot, that shows the inside of Fred's wrist and hand as though looking through an X-ray. The graphic should show the Carpal tunnel, flexor tendons, and median nerve. The laboratory monitor shows an ANIMATION of hands, in an awkward position, typing on a keyboard.	***Dr. Strain**:* Hmmm. What we've got here is a CTD known as Carpal Tunnel Syndrome. And since Fred works on the computer all day long, it doesn't surprise me one bit. You see, awkward or repetitive motions, like using a keyboard, can cause strange things to happen inside the narrow Carpal tunnel. That's the space inside the wrist through which flexor tendons and the median nerve run into the hand. With awkward or repetitive motion, comes a swelling of the tendons, which in turn press against the nerve, causing Carpal Tunnel Syndrome.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9B



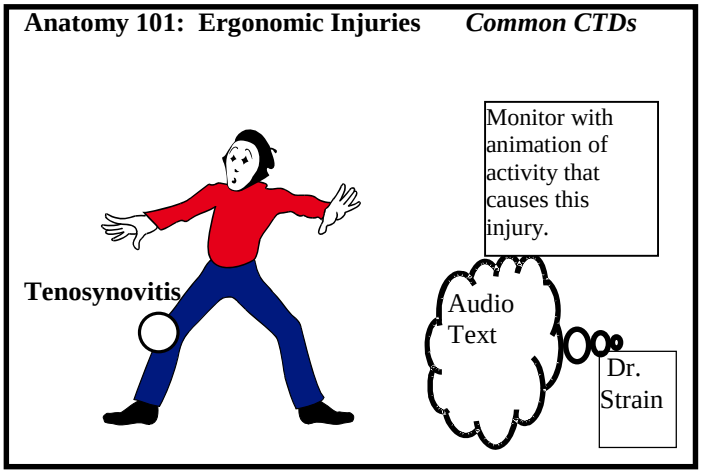
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting shoulder hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the shoulder hot spot, that shows the inside of Fred's shoulder as though looking through an X-ray. The graphic should show a red, irritated tendon (tendinitis) in the shoulder. The laboratory monitor shows an ANIMATION of a weightlifter continuously raising and lowering an extremely heavy weight.	***Dr. Strain**:* Yes, of course. Looks like a nasty case of tendinitis. The name says it all. It's an "itis" or "inflammation" in the tendons caused by continually stressing them until they become irritated and sore. Fred's got it in the shoulder, but it's also common in the elbow and wrist.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9C



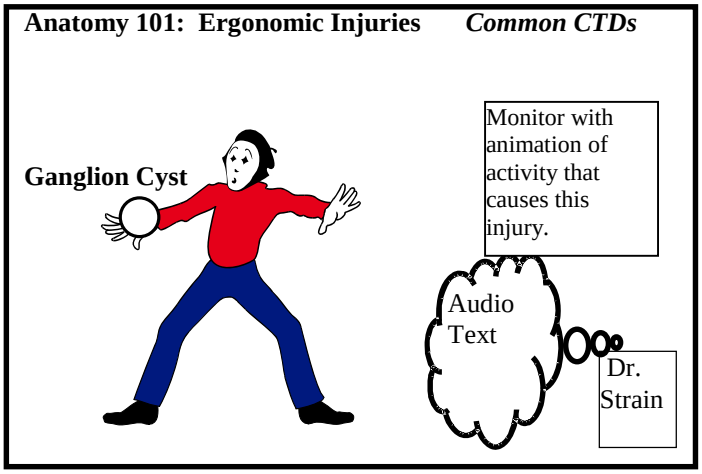
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting elbow hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the elbow hot spot, that shows the inside of Fred's elbow as though looking through an X-ray. The graphic should show a red inflammation in the outside lateral tendon of the elbow. The laboratory monitor shows an ANIMATION of a an arm continuously swinging a tennis racket back and forth.	***Dr. Strain**:* Well, well, well. Fred was right in his own diagnosis. He does have Tennis elbow, or epicondylitis, a form of tendinitis. This CTD occurs when the elbow is overused, causing the outside lateral tendon to become inflamed. It is commonly caused by playing athletics, such as tennis...thus the name "tennis elbow". However, there are many work activities which may cause this injury as well. In fact carpenters and house painters have some of the highest incidents of this CTD.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9D



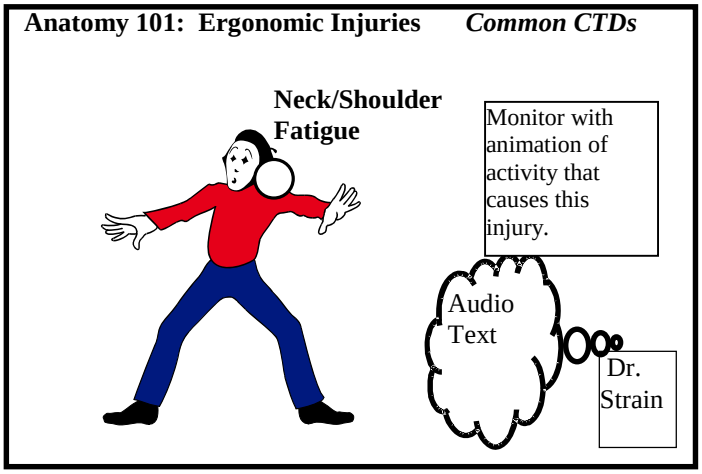
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting knee hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the knee hot spot, that shows the inside of Fred's knee as though looking through an X-ray. The graphic should show built up fluid in the synovial sheath wall that surrounds the tendon in the knee. The laboratory monitor shows an ANIMATION of a person running.	***Dr. Strain**:* Looks like a case of tenosynovitis. This CTD is most commonly found in the wrist, but it can crop up in the knee, just like in Fred's case. Since I've known Fred he's been an avid runner. And that constant pounding on the pavement can contribute to tenosynovitis, which is a build up of fluid in synovial sheath walls that surround tendons.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9E



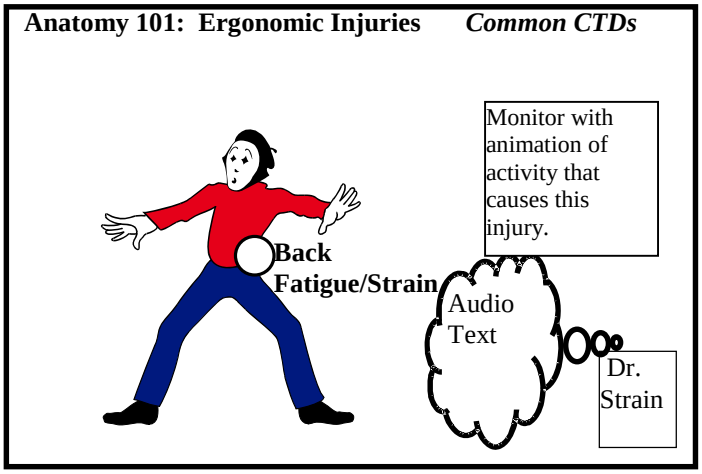
PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting hand/wrist hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the hand/wrist hot spot, that shows the inside of Fred's hand/wrist as though looking through an X-ray. The graphic should show a Ganglion cyst that has formed on top of the hand, where the hand meets the wrist. The laboratory monitor shows an ANIMATION of a person punching numbers on a calculator.	***Dr. Strain**:* The classic Ganglion Cyst. I've seen many of these in my day. Especially in people that perform repetitive activities such as typing or using a calculator, for example. This is an irritating bump under the skin that is caused by the accumulation of fluid in tendon sheaths. Ganglion Cysts usually rear their ugly heads in this general location… at the top of the hand, where the hand meets the wrist. Although they may also appear on the shoulder, elbow, or knee.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9F



PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting neck hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the neck hot spot, that shows the inside of the back of Fred's neck/shoulder as though looking through an X-ray. The graphic should show a compressed nerve at the base of Fred's neck. The laboratory monitor shows an ANIMATION of a person holding a heavy briefcase that is swinging back and forth as he walks.	***Dr. Strain**:* Great gaggles of goosebumps! Not neck and shoulder fatigue! Oh the pain of it all…those compressed nerves and blood vessels pounding between the neck and shoulders. I can really feel for Fred here. I get this all the time while giving my seminars. I'm always lifting my arms above my shoulders to point at this, that, and the other. And carrying my heavy briefcase between seminars doesn't help either.
NEXT = Lesson 2/Frame 9	

Lesson 2/Frame 9G



PROGRAMMING & GRAPHICS	AUDIO & TRANSCRIBED TEXT
User arrives here after selecting lower back hot spot from frame 9 in this lesson. The same graphic of Fred remains from previous screen, but all hot spots are gone. Now there is an enlarged graphic replacing the lower back hot spot, that shows the inside of Fred's lower back as though looking through an X-ray. The graphic should show a compressed nerve in Fred's lower neck. The laboratory monitor shows an ANIMATION of a person sitting slumped over at a desk as a clock steadily ticks away.	***Dr. Strain (the doctor accentuates the word "strain" as though deeply honored by it)***: Oh, here's a CTD named after me. Back fatigue and ***strain***. Fred sits at his computer a lot, and he doesn't have a chair with the best lower back support. Plus, he has developed the bad habit of picking things up without bending at the knees. And that can cause back fatigue and ***strain***.
NEXT = Lesson 2/Frame 9	