

Technically Cool Computing

and the Ergonomic Power Pose



Puget Sound Human Factors
and Ergonomics Society

Disclaimer

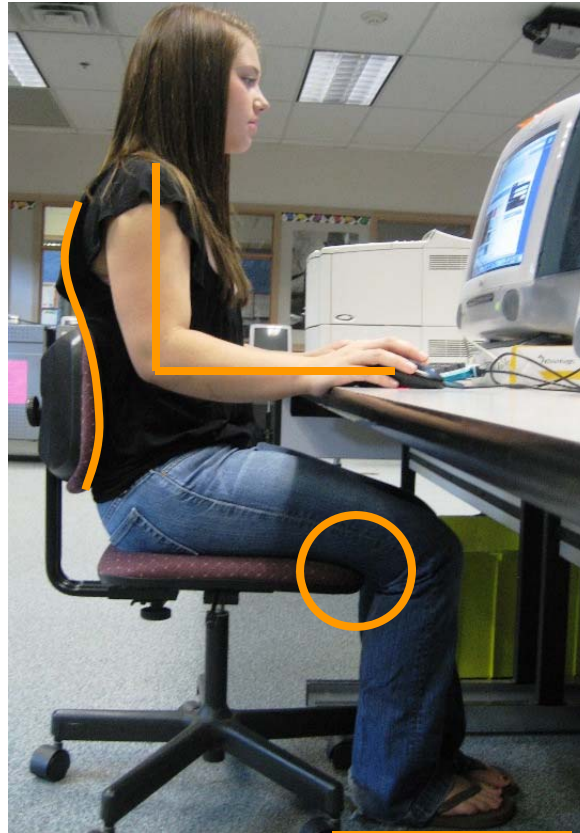
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The Power Pose

Head balanced, ears
over shoulders

Shoulders
over hips,
elbows bent
with upper
arms close to
body

Spine upright,
supported by
backrest



Eyes
Monitor ~arms
length away

Wrists in
straight line
with forearms

Knees slightly
below hips, small
gap between chair
and back of knees

Toes supported by
floor or footrest

Why Does Posture Matter?



Awkward postures drain our energy bank

Improving Posture Saves Your Energy!





You're More Comfortable and Relaxed



ZZZZZZZZ

OK, maybe not *that* relaxed!



You'll Perform Better



Let's Get Started!

Get with your partner for the
Technically Cool Computing
activity

Step 1: Person #1

Writing Exercise

- Open a blank Word document
- Start typing on any subject:
 - What you did last weekend
 - Your family pet(s)
 - A recently read book
- Keep typing while Person #2 does Activity



Step 2: Person #2








Complete TCC Activity Worksheet

“First Time” Column

Person 1-Name _____ Person 2-Name _____

**TECHNICALLY COOL COMPUTING
ACTIVITY WORKSHEET**

Anything with a “no” answer the first time needs to be fixed. Use the attached problem-solving worksheet for ideas of how to fix things, then answer the questions a second time to see how you did!

	(1 st TIME) YES or NO PERSON 1	(2 nd TIME) YES or NO PERSON 1	(1 st TIME) YES or NO PERSON 2	(2 nd TIME) YES or NO PERSON 2
ARMS: <u>Are elbows at or above keyboard height and wrists in a straight line with the forearms?</u>  NO  YES				
HEAD: <u>Is the ear in a vertical line with the shoulder?</u>  NO  YES				
SHOULDER: <u>Are the shoulders in a vertical line with the elbow?</u>  NO  NO  YES				

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TCC Activity Worksheet

- Observe your partner's posture
- Answer 'yes' or 'no' in the first column for all questions



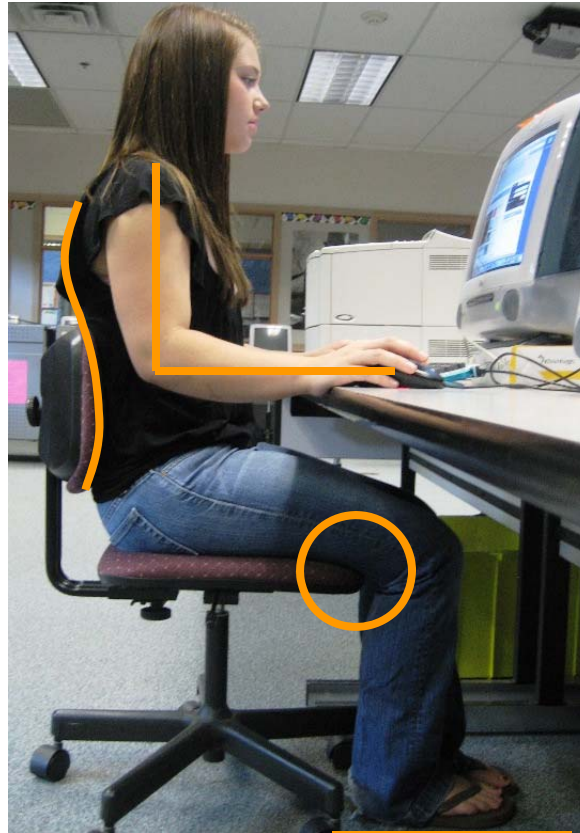
And now...the Power Pose...

The Power Pose

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Step 3: Use the TCC Problem-Solving Worksheet to Make Changes to Posture

TECHNICALLY COOL COMPUTING PROBLEM-SOLVING IDEAS

ARMS: If you circled "NO" to "Are elbows at or above keyboard height and are wrists in a straight line with the forearm?", TRY:

- Placing books under your chair OR
- Raising your chair height (if it adjusts) OR
- Lowering the chair height (if it adjusts) OR
- Placing the keyboard in your lap OR
- Folding in the "legs" under the keyboard

HEAD: IF you circled "NO" to "Is the ear in a vertical line with the shoulder?", TRY:

- Lifting your head up OR
- Leaning back in your chair OR
- Placing a book under the monitor to raise the height OR
- Tilting the monitor up (if chin is down)

SHOULDERS: IF you circled "NO" to "Are the shoulders in a vertical line with the elbows?", TRY:

- Moving your chair in so your stomach almost touches the desk and push the keyboard back so your forearms rest on the desktop OR
- Placing the keyboard in your lap OR
- Moving the mouse closer to the desk edge and the keyboard OR
- Raising the height of your chair

KNEES: IF you circled "NO" to "Are the knees slightly below the level of the hips?", TRY:

- Raising your chair height OR
- Lowering your chair height OR
- Placing a book under your bottom
- Sitting on one or more books

TOES: IF you circled "NO" to "Are the feet fully resting on the floor or a footrest?", TRY:

- Putting a binder or book under your feet OR
- Lowering your chair height OR
- Putting both feet on the floor

SPINE: IF you circled "NO" to "Are the shoulders in a vertical line with the hips?", TRY:

- Scooting back in the chair OR
- Moving your chair closer to the desk OR
- Putting something behind your back OR
- Raising the monitor height

EYES: IF you circled "NO" to "Is the monitor positioned an arm's length away?", TRY:

- Sliding the monitor closer OR
- Sliding the monitor further away from the front of the desk OR
- Moving your chair closer (or further away from) the desk OR
- Tilting the monitor up

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Step 4: Double Check

Make sure the changes you made didn't
create new awkward postures


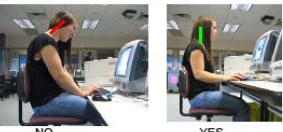



Step 5: Complete TCC Activity Worksheet “Second Time” Column

Person 1-Name _____ Person 2-Name _____

TECHNICALLY COOL COMPUTING
ACTIVITY WORKSHEET

Anything with a “no” answer the first time needs to be fixed. Use the attached problem-solving worksheet for ideas of how to fix things, then answer the questions a second time to see how you did!

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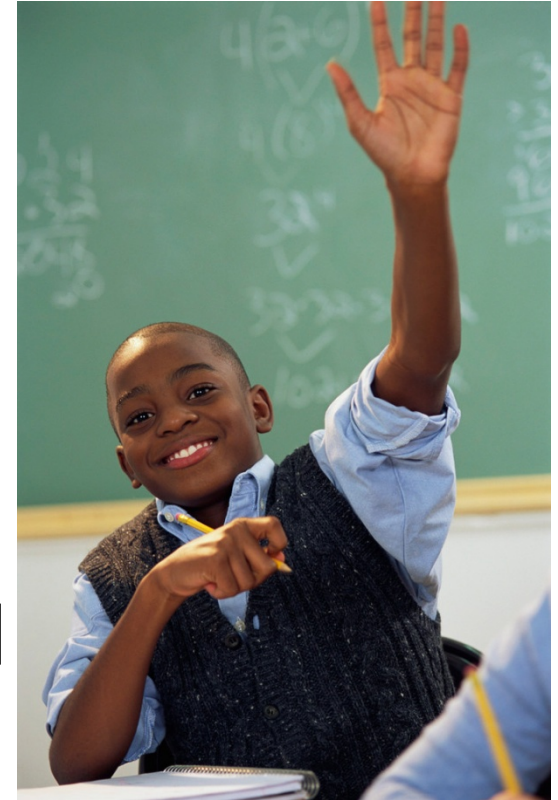
You Did It!





Raise Your Hand If...

- ☐ You were able to recognize awkward or non-neutral postures in yourself or your partner
- ☐ Your group was successful in correcting the awkward or non-neutral postures identified
- ☐ You feel you could repeat this exercise at home on your own



If Time Allows...Trade Places



Get ready to do it again!



Step 1: Person #2

Writing Exercise

- Start typing on any subject:
 - What you did last weekend
 - Your family pet(s)
 - A recently read book
- Keep typing while Person #1 does Activity



Step 2: Person #1




Complete TCC Activity Worksheet

“First Time” Column

Person 1-Name _____ Person 2-Name _____

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ACTIVITY WORKSHEET**

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	PERSON 1	PERSON 1	PERSON 2	PERSON 2
ARMS: <u>Are elbows at or above keyboard height and wrists in a straight line with the forearms?</u>  NO YES				
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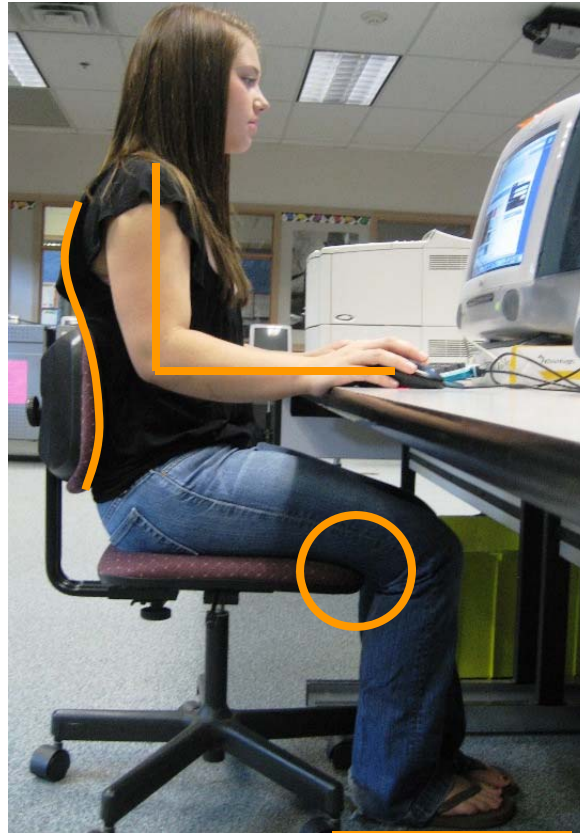
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SHOULDERS: If you circled "NO" to "Are the shoulders in a vertical line with the elbows?", TRY:

- Moving your chair in so your stomach almost touches the desk and push the keyboard back so your forearms rest on the desktop OR
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KNEES: If you circled "NO" to "Are the knees slightly below the level of the hips?", TRY:

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- Lowering your chair height OR
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TOES: If you circled "NO" to "Are the feet fully resting on the floor or a footrest?", TRY:

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- Lowering your chair height OR
- Putting both feet on the floor

SPINE: If you circled "NO" to "Are the shoulders in a vertical line with the hips?", TRY:

- Scooting back in the chair OR
- Moving your chair closer to the desk OR
- Putting something behind your back OR
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EYES: If you circled "NO" to "Is the monitor positioned an arm's length away?", TRY:

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Step 4: Double Check

Make sure the changes you made didn't
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Step 5: Complete TCC Activity Worksheet “Second Time” Column

Person 1-Name _____ Person 2-Name _____

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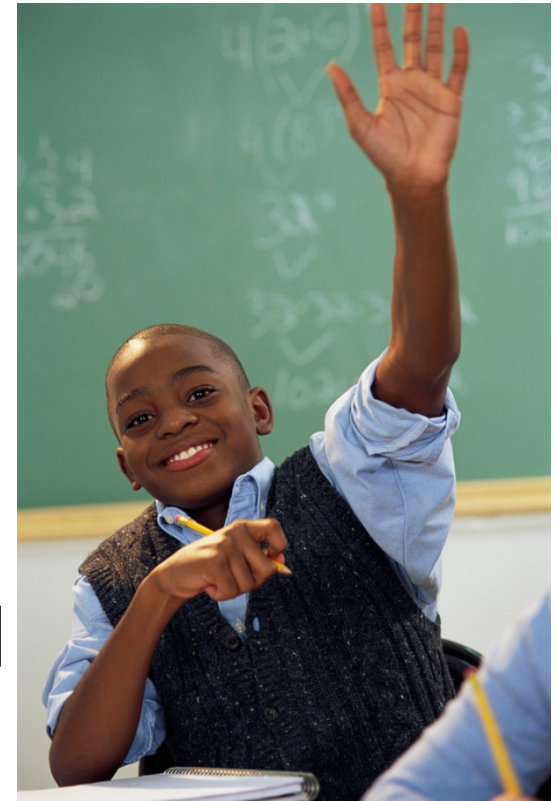
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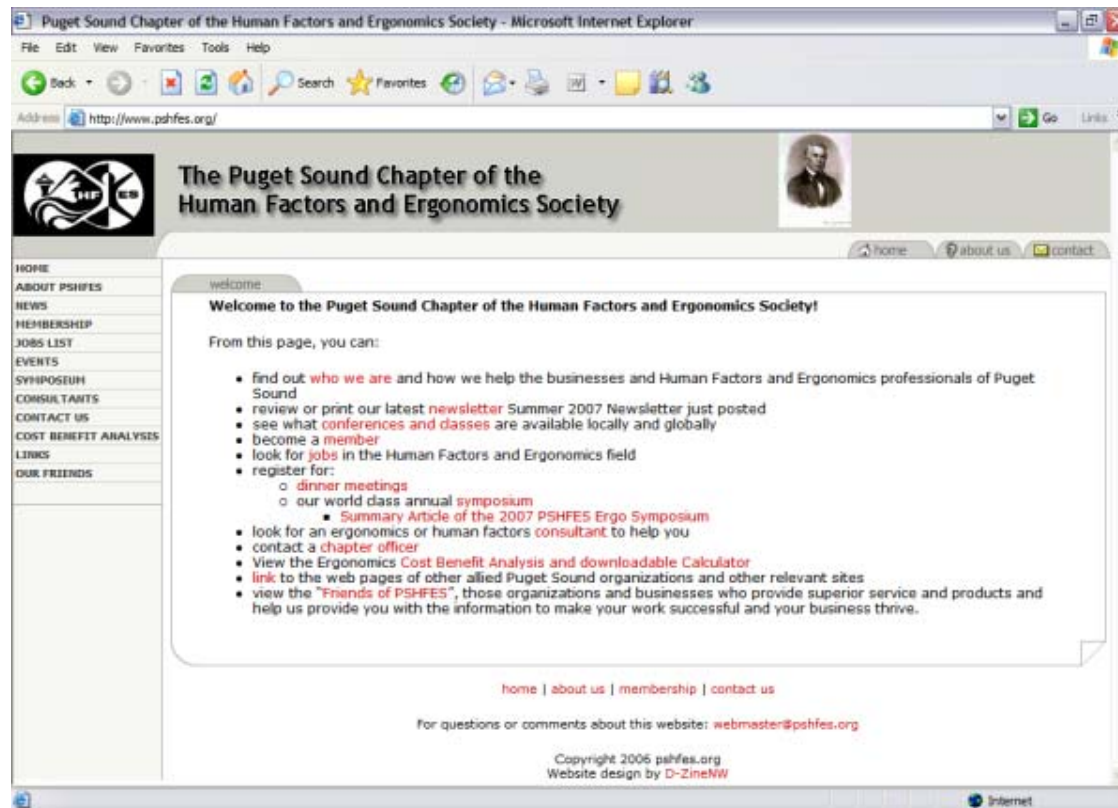


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- ☐ Your group was successful in correcting the awkward or non-neutral postures identified
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Visit pshfes.org/news for
more useful tips

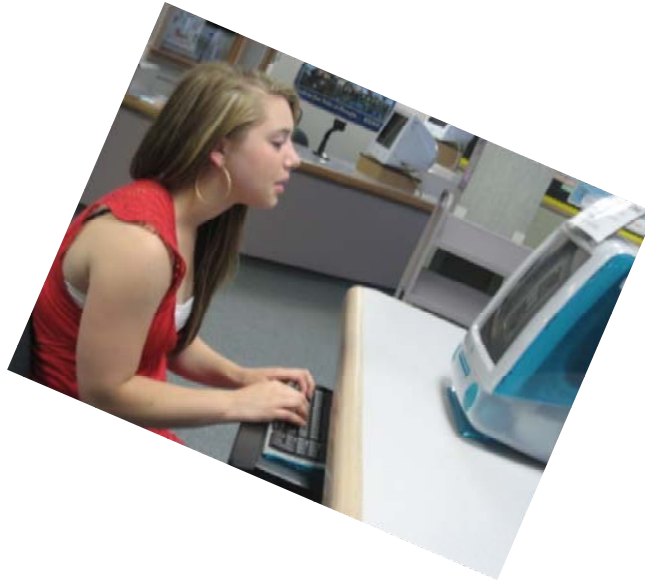


Thank You!

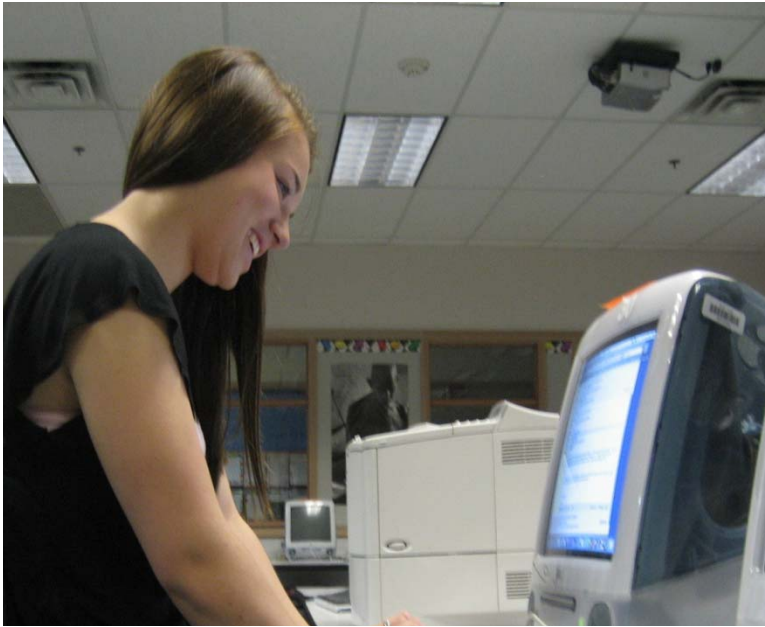


Posture Examples

Here are some postures you may observe



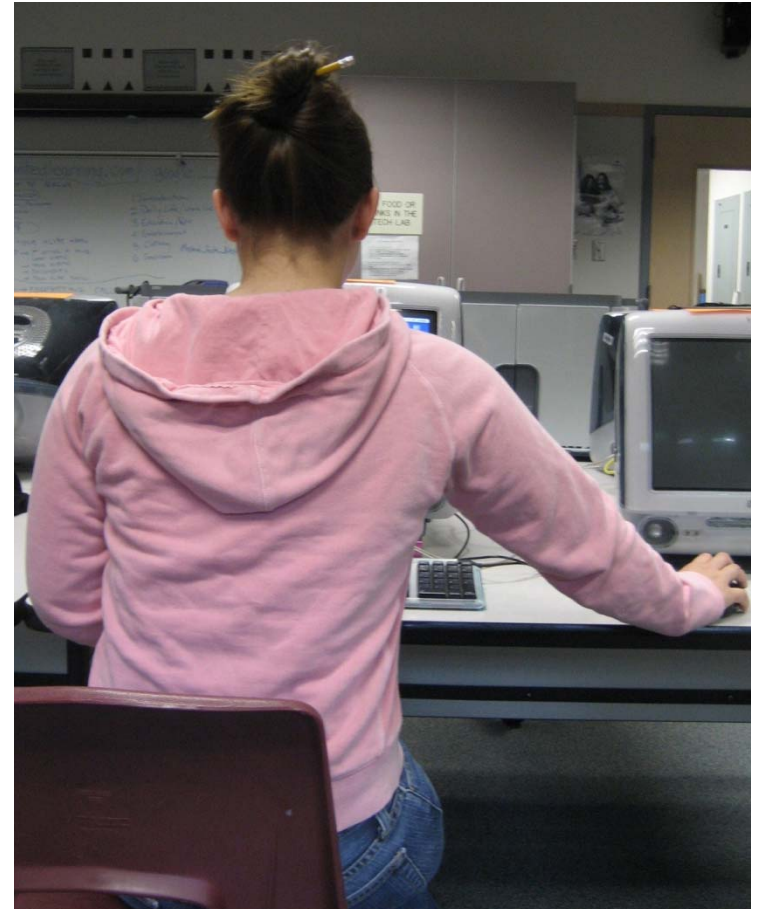
Head



Is the ear in a vertical line with the shoulder?

Shoulders

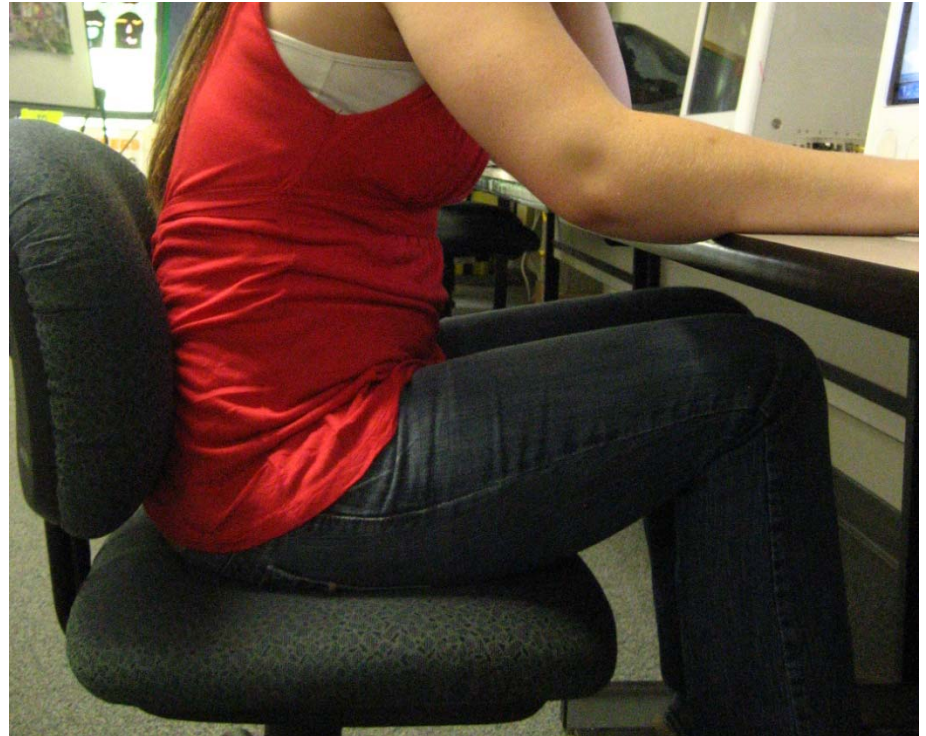
Are the shoulders in a vertical line with the elbows?



Knees



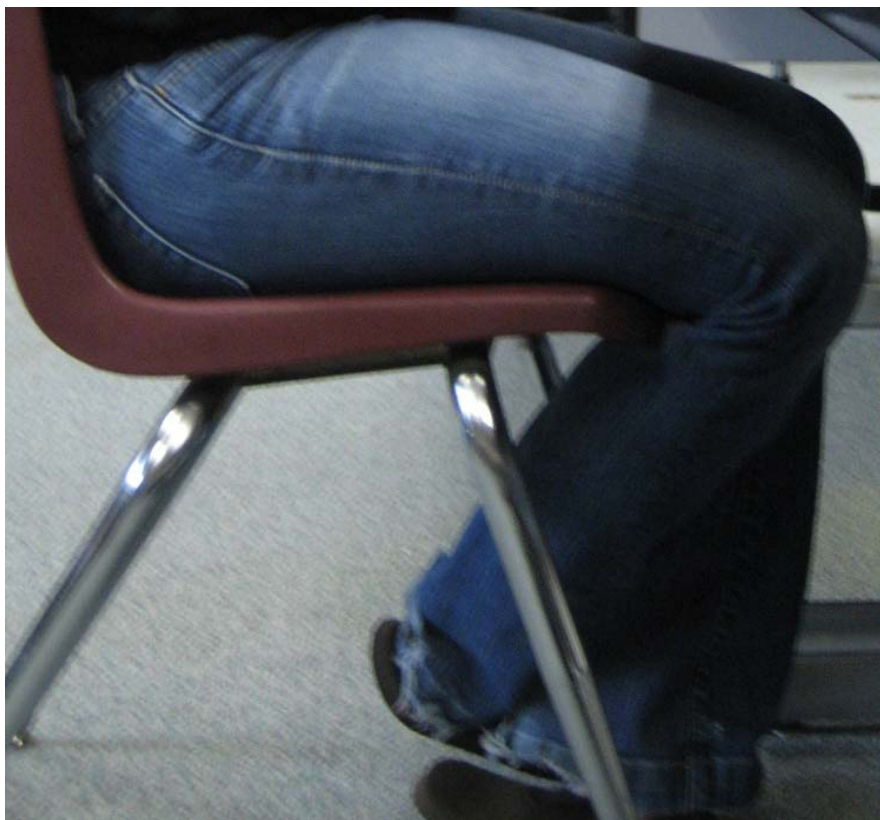
Knees WAY below hips



Knees above hips

Are the knees slightly below the level of the hips?

Toes



Feet not flat on the floor



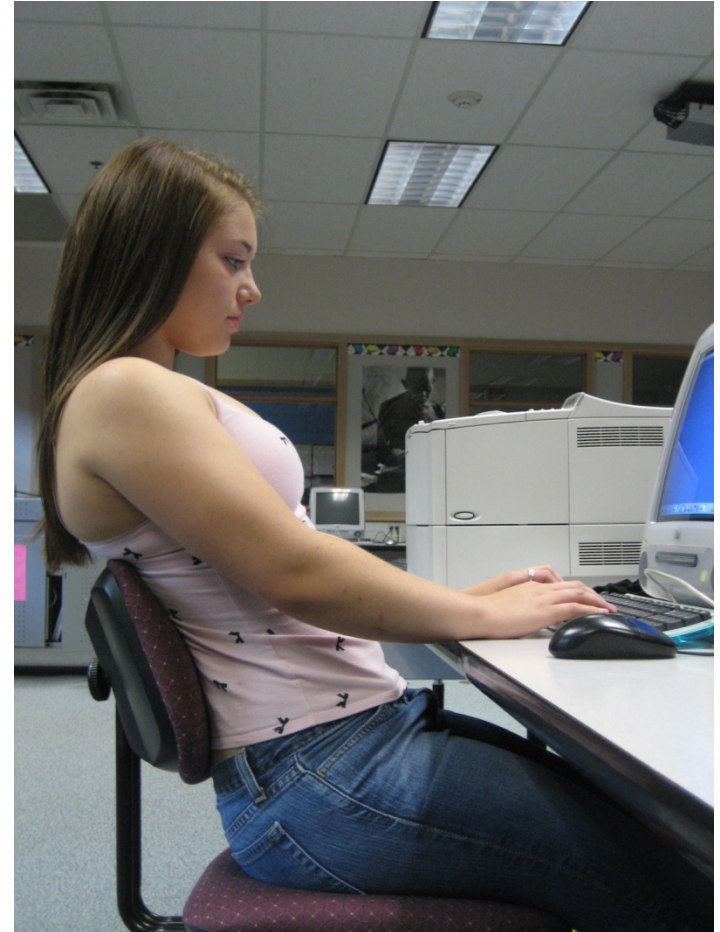
Feet don't fully touch the floor

Are the feet fully resting on floor or footrest?

Spine



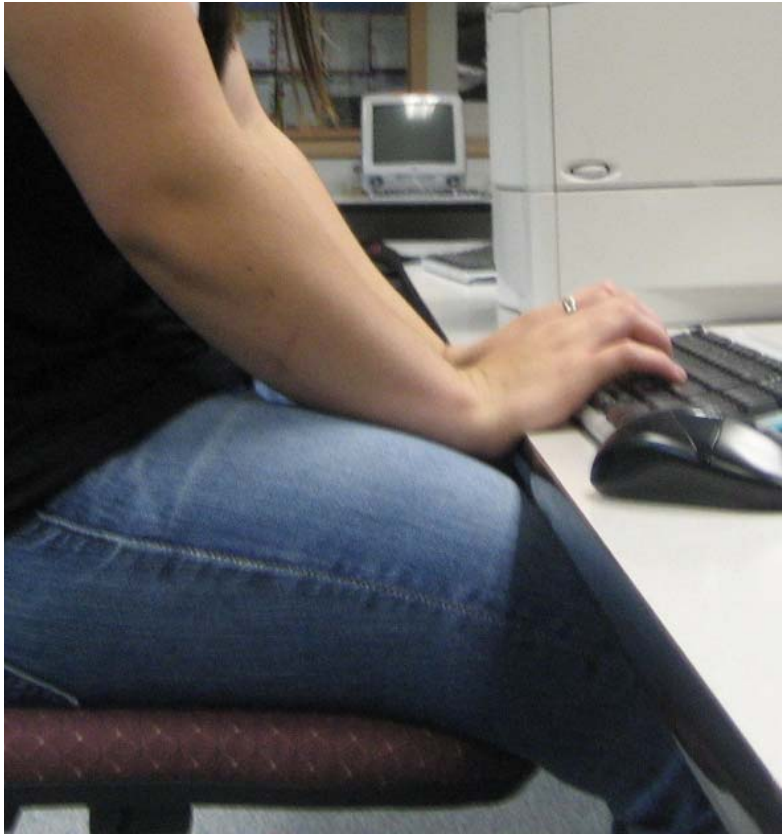
Shoulders in front of hips



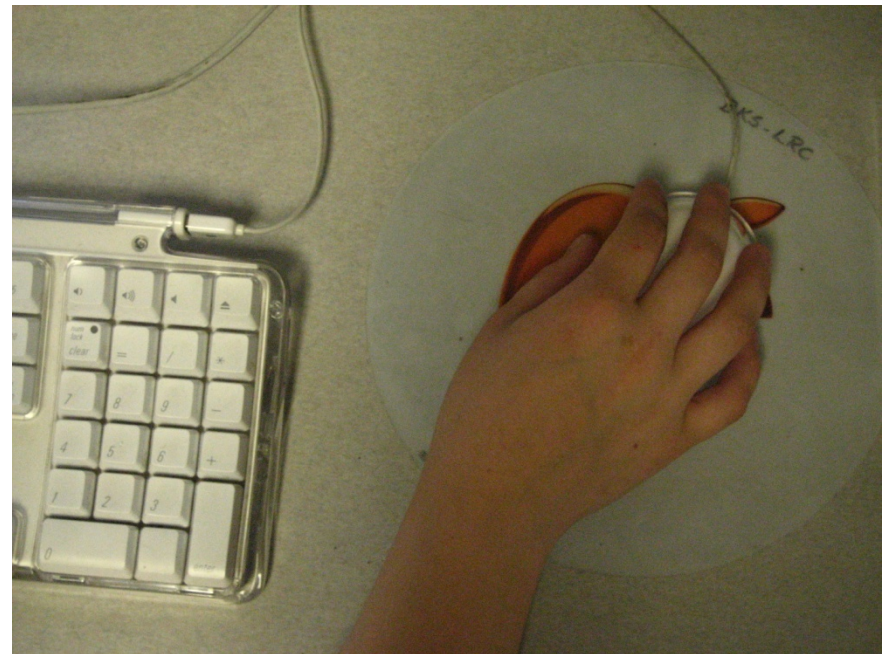
Shoulders behind hips

Are the shoulders in a vertical line with the hips?

Wrists



Wrists angled up



Wrists angled to side

Are the wrists in a straight line with the forearm?

Eyes



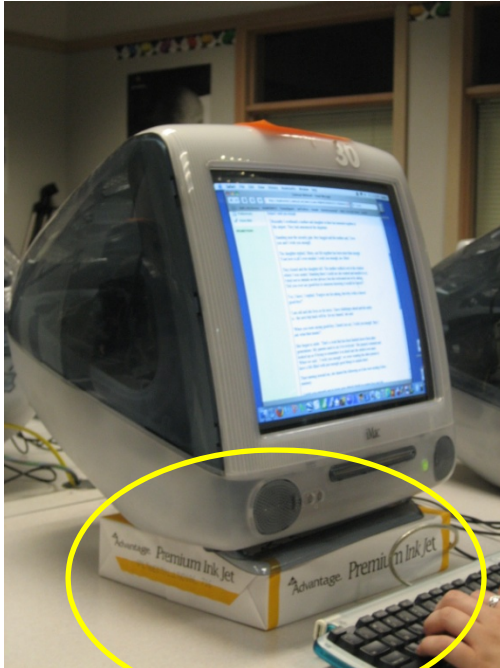
Monitor more than an arm's length away



Less than an arm's length away

Is the monitor positioned about an arm's length away?

Make Changes – Be Creative!



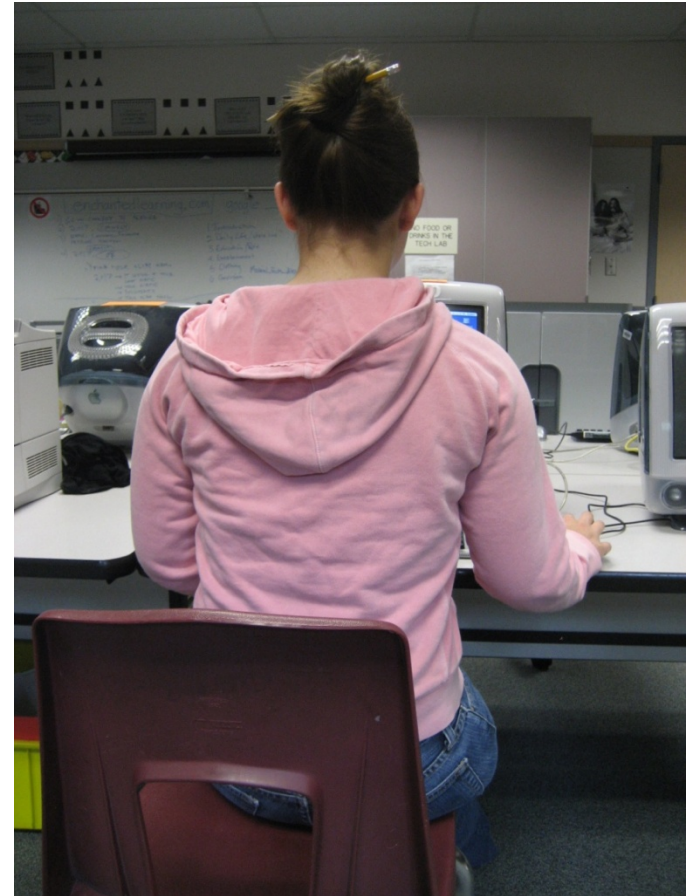
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Head



Try raising monitor or lowering chair
until your chin is tipped down slightly

Shoulders



Bring mouse closer to you

Shoulders



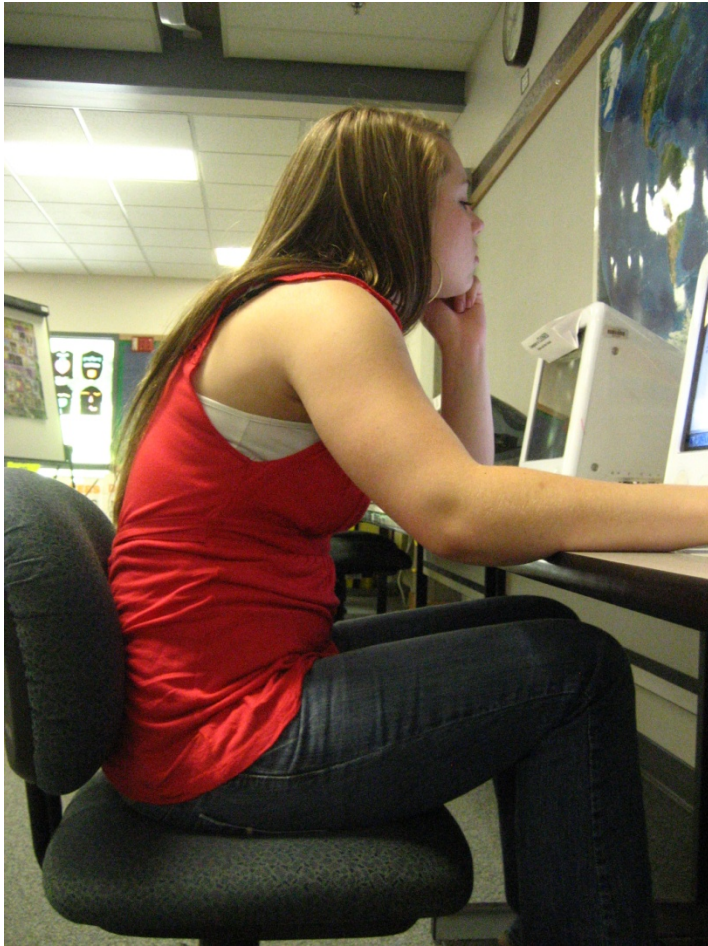
Bring mouse or keyboard closer to you

Knees



Try lowering chair until knees are just below hip level

Knees



If your chair doesn't raise, try sitting on something

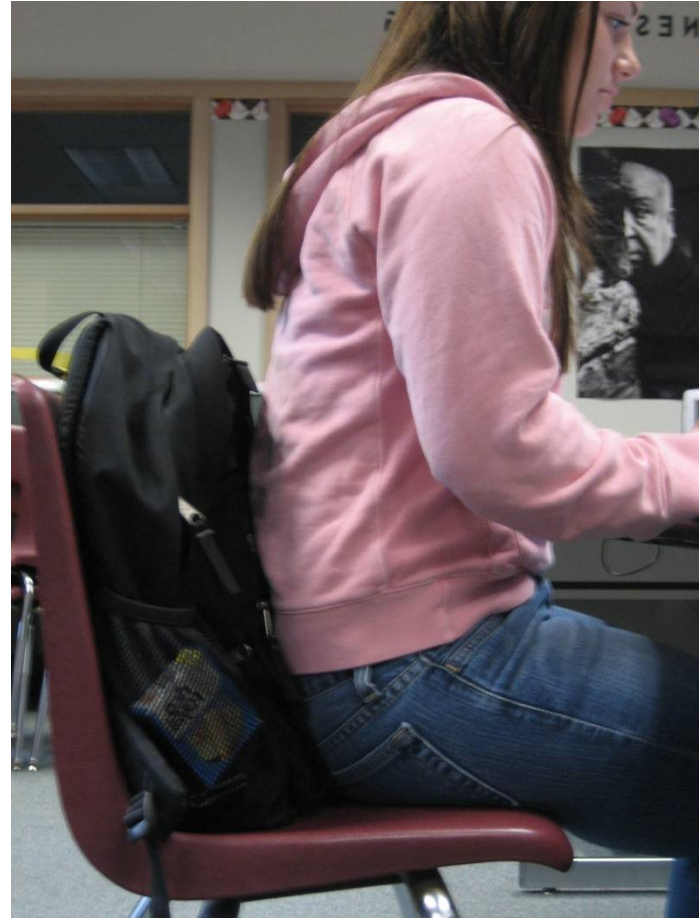
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Toes



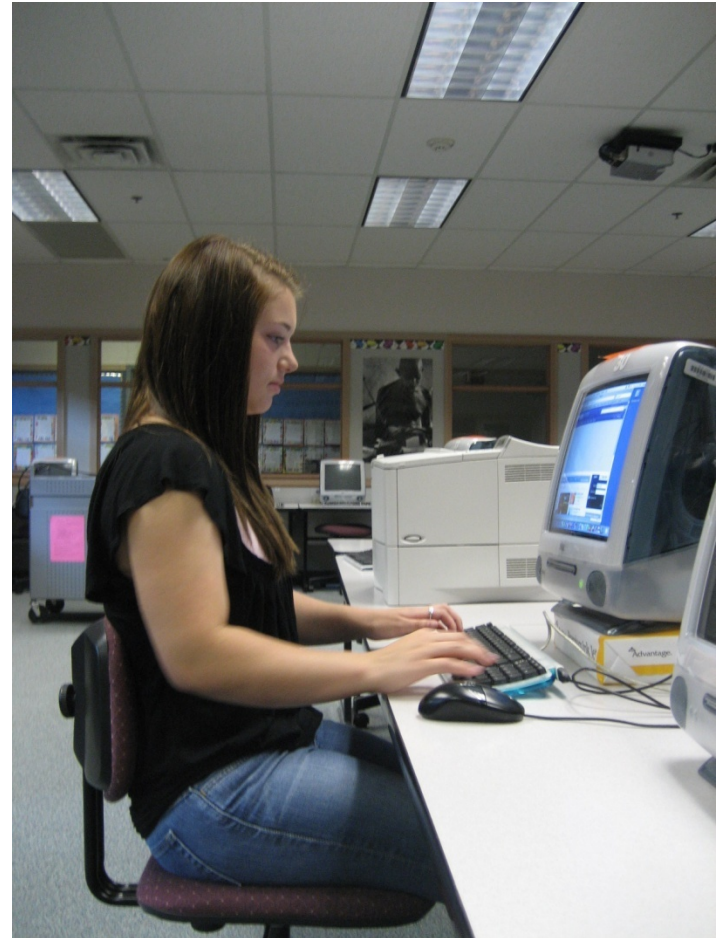
If your chair doesn't lower, try putting something under your feet

Spine



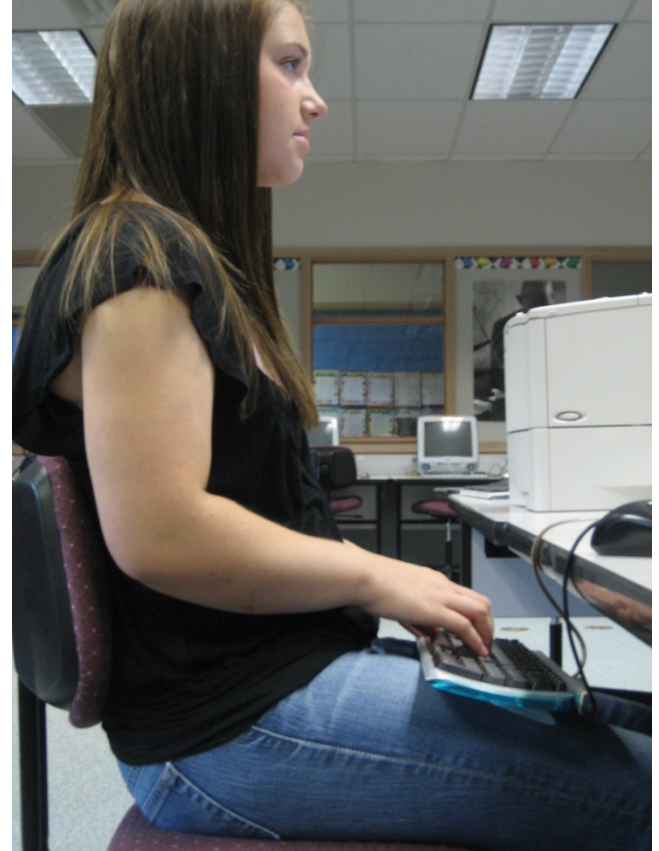
If you can't sit back in the chair without leaning, try putting something behind your back

Wrists



With lower chair height

Wrists



If your chair doesn't lower, try bringing the keyboard in your lap

Eyes



Bring your monitor closer