Technically Cool Computing

and the Ergonomic Power Pose

Puget Sound Human Factors and Ergonomics Society
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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

**Wrist** in straight line with forearms

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

**Toes** supported by floor or footrest

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Why Does Posture Matter?

Awkward postures drain our energy bank
Improving Posture Saves Your Energy!
You’re More Comfortable and Relaxed

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
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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**Toes** supported by floor or footrest
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 forearms?", TRY:
- Placing books under your chair OR
- Raising your chair height (if adjustable) OR
- Lowering the chair height (if adjustable) OR
- Placing the keyboard in your lap OR
- Folding in the "flags" 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 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

**NECKS:** 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 OR
- Sitting on one or more books

**FEET:** 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:
- Leaning 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
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

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You Did It!

Congratulations!

Great Job!

Nice Job!

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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
The Power Pose

**Head** balanced, ears over shoulders

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**TECHNICALLY COOL COMPUTING**
**PROBLEM-SOLVING IDEAS**

**ARM** If you circled “NO” to “Are elbows at or above keyboard height and are wrists in a straight line with the forearms?”, TRY:
- Placing books under your chair or
- Raising your chair height (if adjustable)
- Lowering the chair height (if adjustable)
- Placing the keyboard in your lap
- 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 desk is down)

**SHOULDER** If you circled “NO” to “Are the shoulders in a vertical line with the elbows?”, TRY:
- Moving the chair so that your shoulders almost touch 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

**NECK** 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 OR
- Sitting in 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

**NECK** 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
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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
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
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?

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Toes

Feet not flat on the floor

Feet don’t fully touch the floor

Are the feet fully resting on floor or footrest?

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Spine

Are the shoulders in a vertical line with the hips?
Wrist alignment:

- 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

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Knees

If your chair doesn’t raise, try sitting on something
Toes

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

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

With lower chair height
Wrists

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

Bring your monitor closer