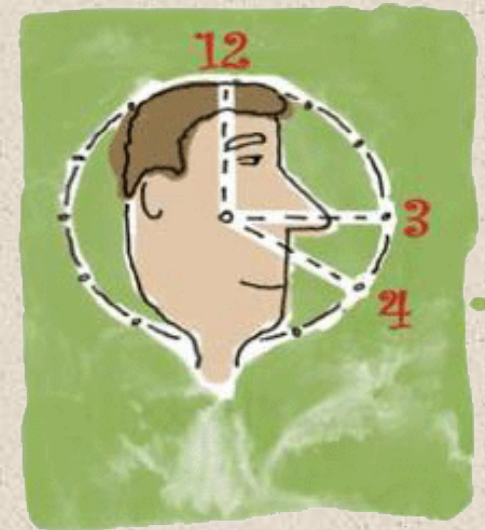# 6. Viewing Monitor and Hardcopy
… essential tips

- Place what you view most in front of you

- Check that you can view the screen without bending your head / neck

- Check that you can read or reference hardcopy without bending your head/neck

- Make sure you have appropriate eyewear for your viewing task

Viewing Monitor & Hardcopy
- Position visual displays in front of you

If you view your monitor most of the time, make sure it is directly in front of you with the top at, or slightly below, eye level.

If you view hardcopy more than the monitor, you can position it to the side and your documents in front of you.

If you need to read hardcopy, try to get it raised near eye level by using a copy holder.

If you need to read and write on hardcopy, try using a sloped board or large angled document holder.

Ergo Fun Fact
Studies have shown that angling a viewing document toward your eyes just 15 degrees can reduce stress on your head/neck as well as your low back. In fact, one study showed an angled document produced better back postures than a highly adjustable ergonomic chair.

Viewing Monitor & Hardcopy

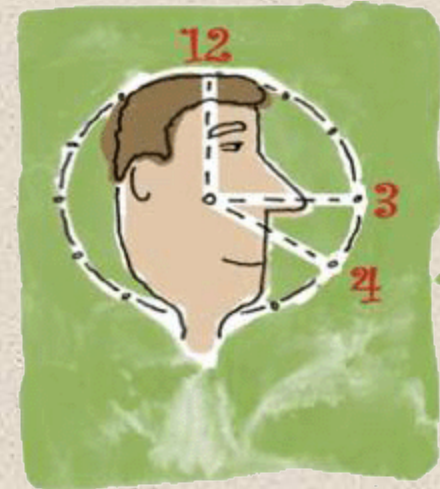## - View screen & hardcopy without bending your neck

When viewing the screen and/or hardcopy think of your nose as the hour hand on a clock.

Check that your nose is pointing somewhere between 3 and 4 o'clock… NEVER above 3 o'clock and RARELY below 4 o'clock.

Above 3 o'clock often means you're bending your head back because the screen is too high or you're peering through the lower lens of your glasses.

Below 4 o'clock often means you're bending your head too far forward because hardcopy is too low or you need to view the keyboard.
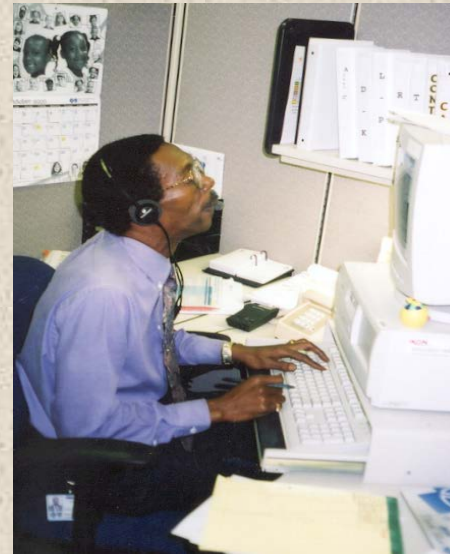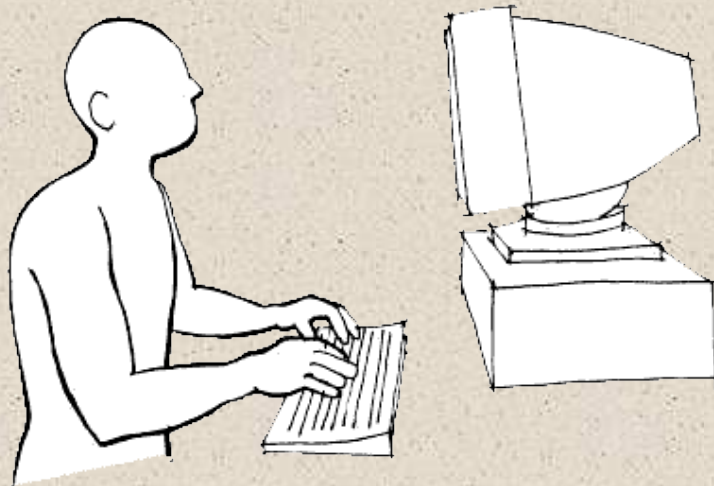
If your nose is pointing <u>beyond 3 and 4 o'clock</u>, check what's causing it and try to correct it.

Good…between 3 and 4 o'clock

Viewing Monitor & Hardcopy
- View the screen without bending your head / neck

When the monitor is positioned too high, it can require you to tilt your head back. This posture can also be made worse if you wear bifocals or trifocals.

Be aware, this posture is very stressful on the neck and it puts pressure on a major artery, which can reduce blood flow to the brain causing severe headaches.

Viewing Monitor & Hardcopy

- View the screen without bending your head / neck

The top of the monitor should fall at
or below your seated eye height…
- a little higher if you sit back
- a little lower if you tend to sit erect
  or forward

The eyes actually function best when the
display area you view most falls about
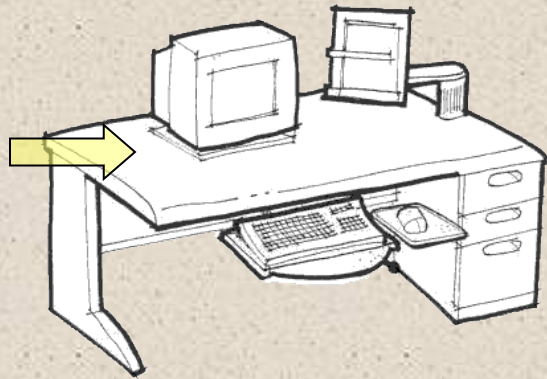10 to 20 degrees below your eye level.

If you have to read or reference a lot of
hardcopy documents/paper work on the worktop
while viewing the monitor, you
should position your monitor as low as possible.

This can help minimize the up-down head/
neck bending when viewing between them.

10 to 20 Degrees
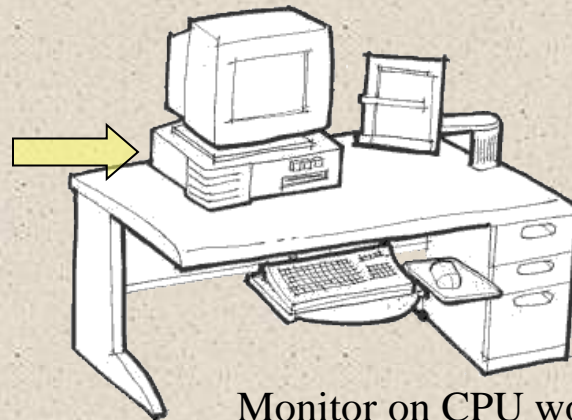
Viewing Monitor & Hardcopy
...tips for setting the monitor height
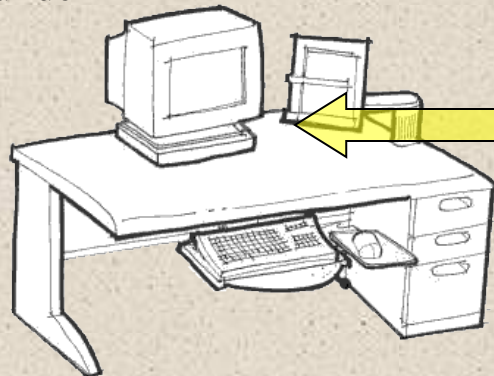
Monitor on worktop works for...
- shorter people/short torso
- people with bi-focals
- viewing monitor and paper
  work on surface
CPU should be mounted under
surface or on floor stand.

Monitor on CPU works for…
- very tall people/long torso
- people who sit back in their
  chair at > distance from screen

Monitor raised a few inches on a few
"stackers" works for…
- most average size people who
  primarily view the computer screen
CPU should be mounted under
surface or on floor stand.

Viewing Monitor & Hardcopy

- Read or reference hardcopy without bending your neck

Avoid placing reading and reference material to your side and flat on the worktop.This requires a lot of forward bending and twisting of the neck.

Use a document holder or stand to raise the viewing material to a more comfortable position and place it either next to the screen or between the screen and keyboard.

Ergo Fun Fact
One study calculating repetition rates among Call Center operators found that on average their work involved about 12,000 hand and finger motions at the computer over the day. Surprisingly, they found that their work also involved about 36,000 head/neck motions to view the screen and reference material- 3 times the rate of hand repetition.

Viewing Monitor & Hardcopy

- Read or reference hardcopy without bending your neck

She's making good use of a document holder set between her screen and keyboard.

He's making good use of a document holder placed close to the side of his screen.
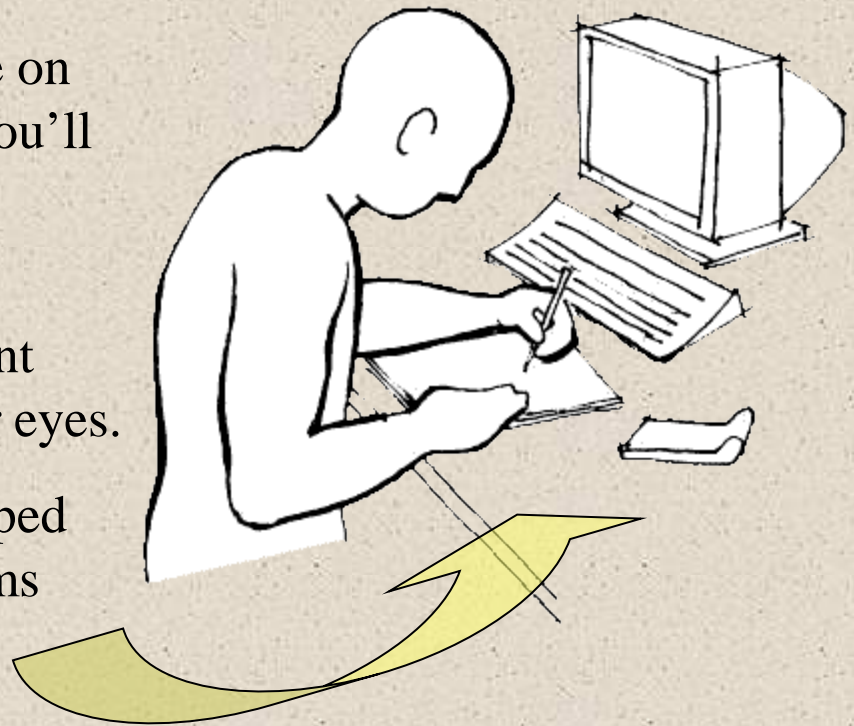
Viewing Monitor & Hardcopy

- Read or reference hardcopy without bending your neck

If you frequently reference and write on hardcopy placed on your worktop, you'll find yourself bending your back and neck forward a lot.

Try using a sloped work surface (slant board) to angle material toward your eyes.

If you do a lot of writing, a large sloped board that also supports your forearms can provide relief to your neck and shoulders.

Viewing Monitor & Hardcopy

- Read or reference hardcopy without bending your neck

Note how this person is bending her head/neck and back forward to write on hardcopy placed on her worktop.

This person is also writing on hardcopy but her documents are on a slant board. Note that she is sitting back and not bending much at all because the hardcopy is sloped toward her eyes and raised slightly.

Viewing Monitor & Hardcopy
## *…tips for viewing the keyboard*

If you need to view the keys when typing, you'll find yourself bending your head/neck downward.

In such cases, it can help to set the keyboard a bit higher, a bit farther and angled toward your eyes.

It's also helpful to set your monitor as low as possible (on the surface) to minimize the amount of up and down head motions when viewing between the keyboard and screen.

You might also consider learning to TOUCH-TYPE.

Click on the <u>Keying icon</u> in this learning guide for more tips.
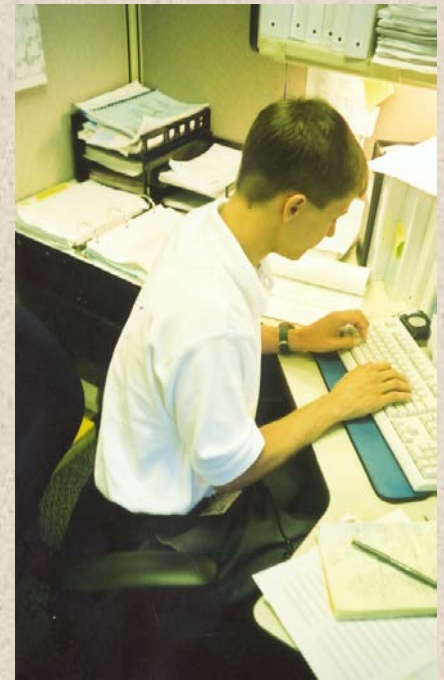
Ergo Fun Facts
A study conducted to examine the work styles and work habits of employees in high tech industries found that only 40% of programmers and engineers were touch-typist, most had to view their keyboards which can be a "pain in the neck." Based on observations at Marin County, it appears that about 70% are touch-typists so there should be far fewer "pain in the necks."

Viewing Monitor and Hardcopy

- Appropriate eyewear for your viewing task

Your vision abilities and you're your eyewear can have a large affect on your working posture and how you position your viewing materials.

If you wear bifocals and use the reading lens (lower portion) to view the screen, you might need your screen set a bit lower.

If you use your distance lens (upper portion), you might need your screen a bit higher.

Ask your eye care professional about monofocal "single-vision" or "progressive" lenses to avoid using bifocals for office work.

Also remember to have your eye care professional recommend an ideal reading distance for your screen and for hardcopy documents. This will allow you to sit in a comfortable position and see your viewing materials more clearly.