The background features abstract, overlapping green geometric shapes in various shades, including light lime green, medium green, and dark forest green. These shapes are primarily located on the left and right sides of the page, framing the central white area.

Ergonomics

Tips for a Comfortable Office Setup

Ergonomics

- ▶ **Ergonomics** is about fitting the work to the person and what they do, the objects they use and the environments in which they work, in order to reduce risk of injury/discomfort. Exposure to more than one risk factor increases the chances of experiencing discomfort.

Ergonomic Principles

- ▶ Work activities should permit the person to adopt various healthy and safe postures.
- ▶ Muscle forces should be done by the *largest appropriate* muscle groups accessible.
- ▶ Work activities should be conducted with joints at about mid-point of their range of motion (ROM) such as the head, trunk, upper extremities.

Risk Factors

- ▶ **Repetition** - task or series of motions performed over & over.
- ▶ **Forceful Exertions** - amount of physical effort needed to complete work.
- ▶ **Awkward Postures** - extending, twisting, bending, belonging fixed positions.
- ▶ **Contact Stress** - Isolate pressure used against the skin by external force.

Five Key Ergonomic Issues

- ▶ Relaxed shoulders
- ▶ Supported lower back
- ▶ Level head
- ▶ Straight wrists
- ▶ Supported feet

Hazard Prevention

- ▶ Neutral positioning
 - ▶ Non-stressed postures
 - ▶ Relaxed, right angles at the knees, hips and elbows
 - ▶ Wrists straight rather than flexed (down) or extended (up)
 - ▶ Lower and upper back supported
- ▶ Workstation design
- ▶ Work/rest periods
- ▶ Task rotation
- ▶ Exercise

Workstation Design

- ▶ Adjustable chairs
- ▶ Monitors - height and angle
- ▶ Keyboards - height and angle; avoid sharp edges
- ▶ Pointer/Mouse
- ▶ Wrist/Palm Support
- ▶ Document Holders
- ▶ Desks
- ▶ Telephones
- ▶ Footrests

Work Environment Considerations

- ▶ Lighting
- ▶ Glare
- ▶ Ventilation
- ▶ Noise

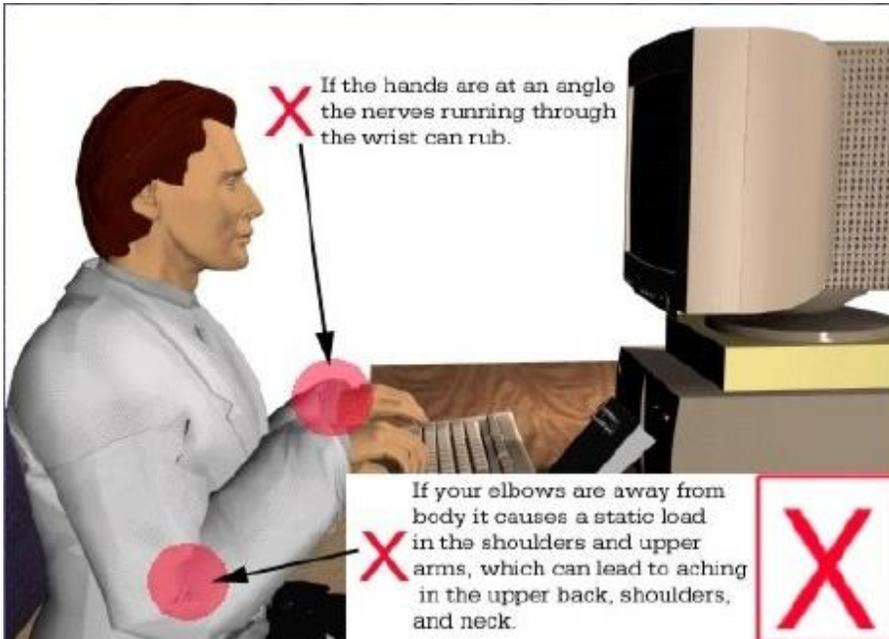
Ergonomic Chair Functions

- ▶ Seat height adjustable.
- ▶ Back adjustable up and down.
- ▶ Back tilt forward and back.
- ▶ Seat pan adjustable in and out.
- ▶ Arms adjustable in three planes preferably.
- ▶ Proper fit for individual.
- ▶ 5 casters for stability.

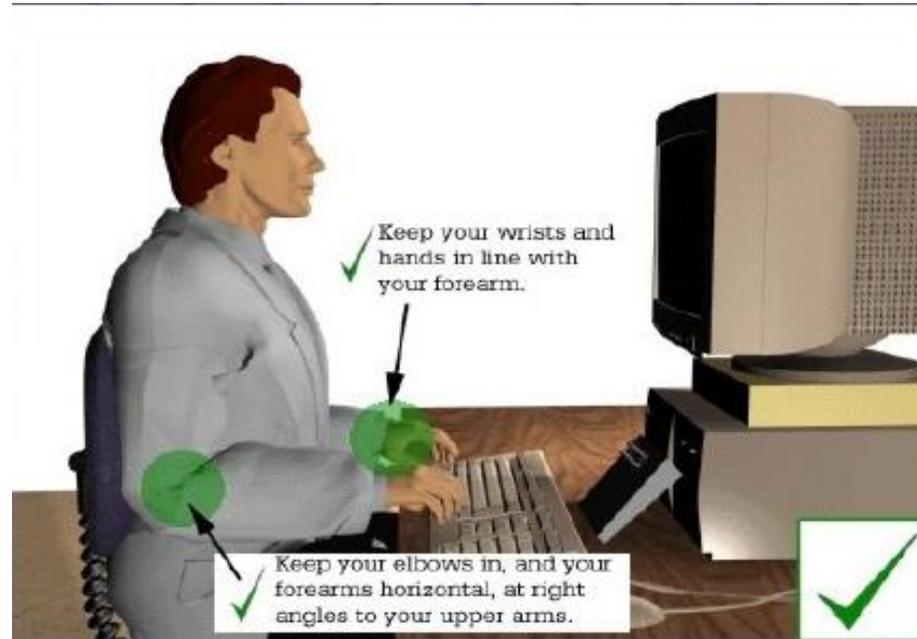


Incorrect & Correct Elbow Positions

Incorrect



Correct

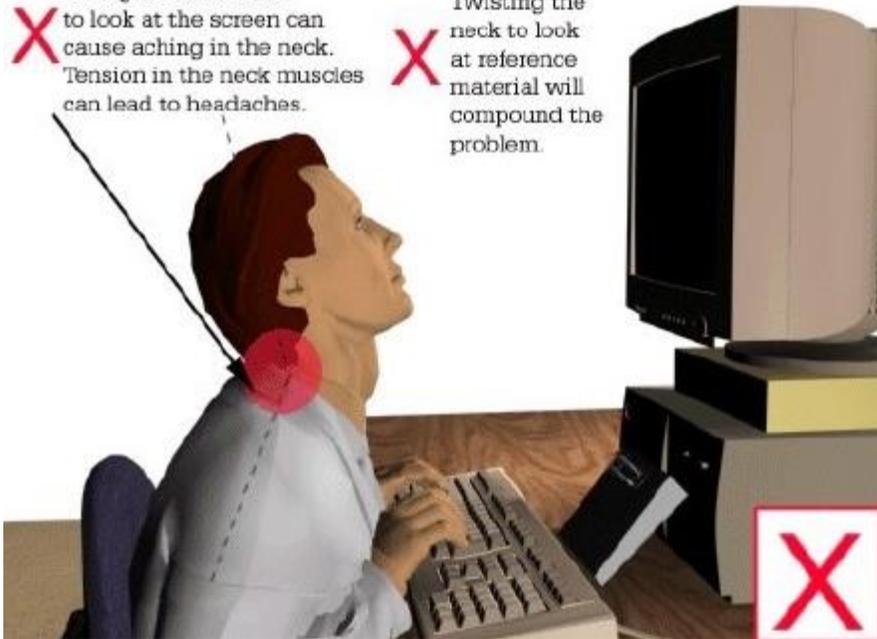


Incorrect & Correct Head/Neck Positions

Incorrect

X Tilting the head back to look at the screen can cause aching in the neck. Tension in the neck muscles can lead to headaches.

X Twisting the neck to look at reference material will compound the problem.

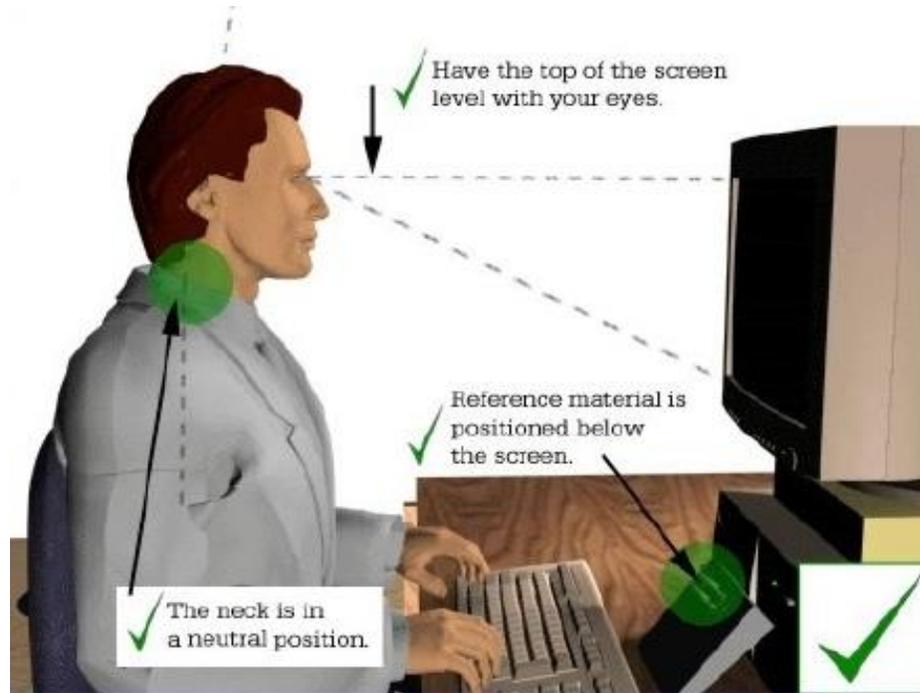


Correct

✓ Have the top of the screen level with your eyes.

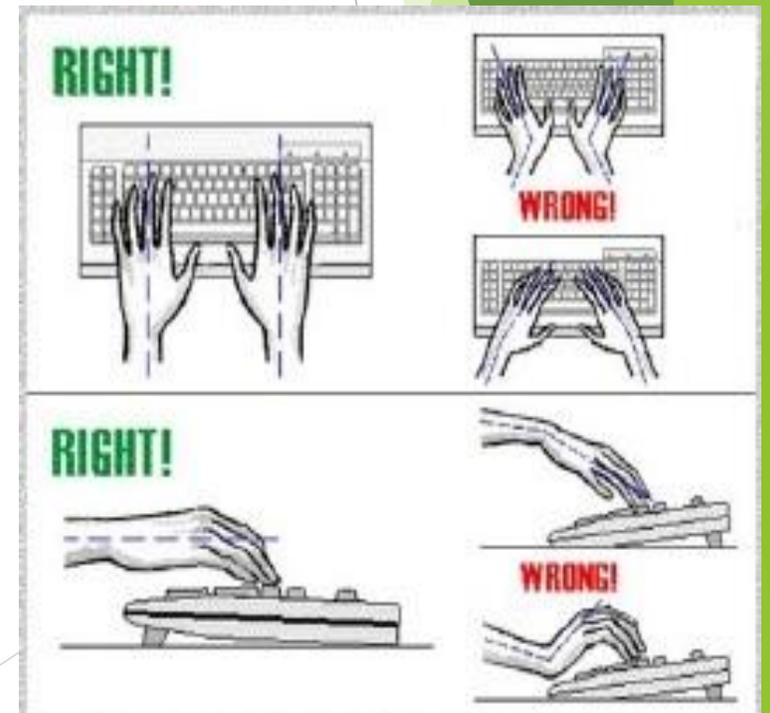
✓ Reference material is positioned below the screen.

✓ The neck is in a neutral position.



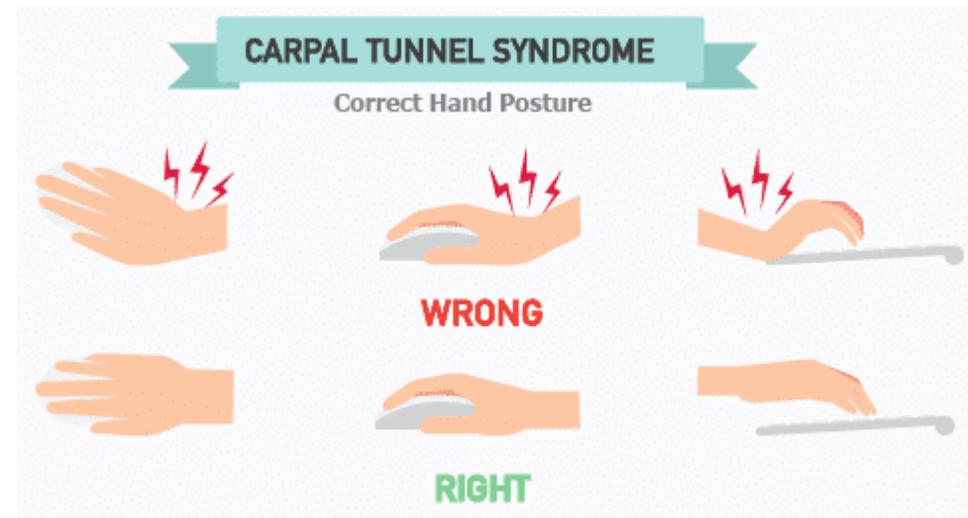
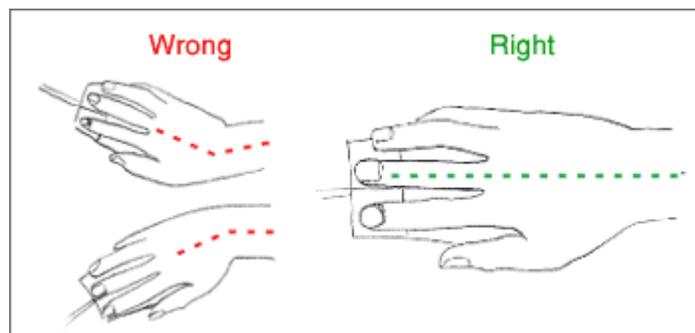
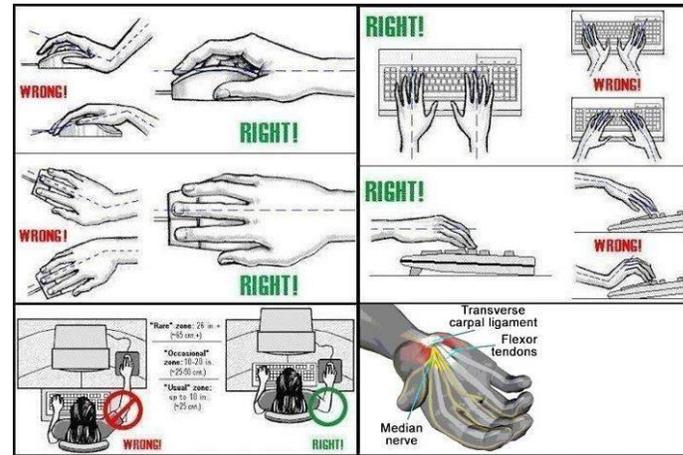
Keyboards

- ▶ Keep the hands and wrists in as neutral a position as possible.
- ▶ Adjustments, may include tilting or not tilting the keyboard, wrist rests in front of the keyboard, and repositioning the entire body.
- ▶ Alternative shapes of keyboards may help
 - ▶ Split, Tented/Angled, Negative Slope, Supportive, Scooped



Mouse

- ▶ Thumb and forefinger problems
- ▶ Change kind of mouse
- ▶ Thumb joint pain, switch to Uniball or three-finger mouse



Wrist Rests/Palm Supports

- ▶ In general, research supports the idea of resting the hands on some kind of a surface during keying pauses.
- ▶ The use of wrist rests has been associated with reduced muscle activity in the arms and shoulders, straighter wrist postures, comfort, and preference.



Document Holder/Footrest

▶ Document Holder

- ▶ Designed to minimize eye and neck movement by keeping your documents at the proper viewing level.



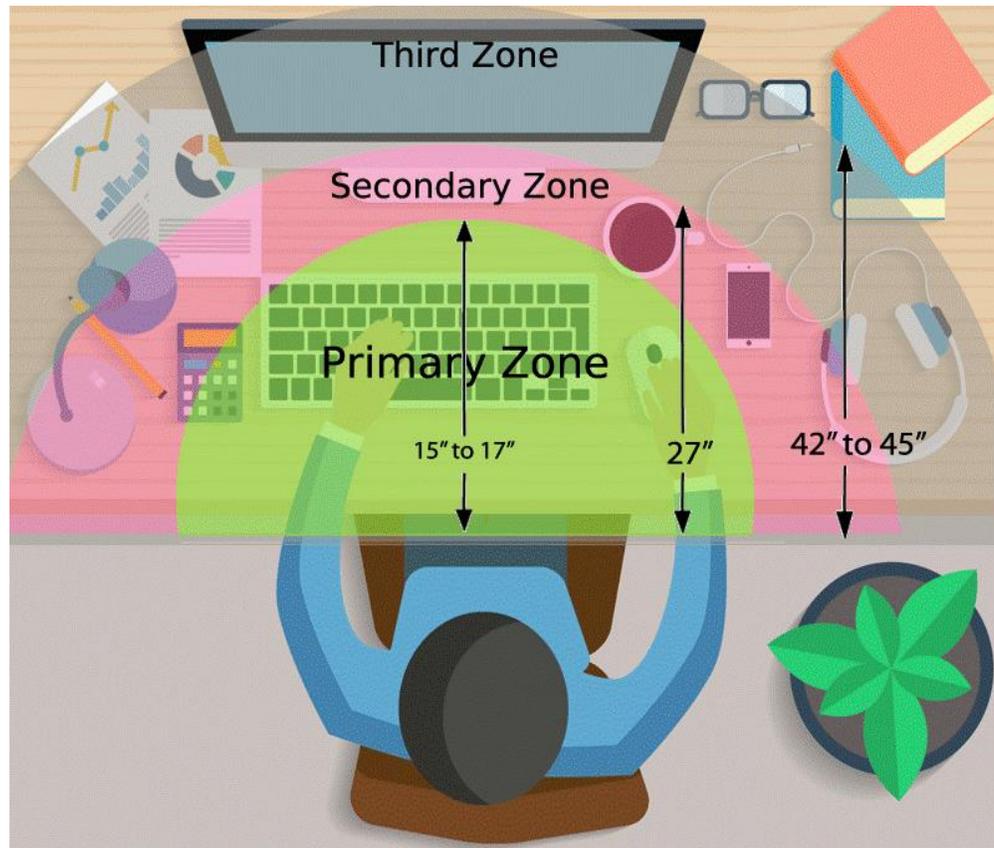
▶ Footrest

- ▶ Reduces leg strain and promotes circulation.
- ▶ Reduces strain on lower back.
- ▶ Should position your knees to roughly a 90 degree angle.



Desk

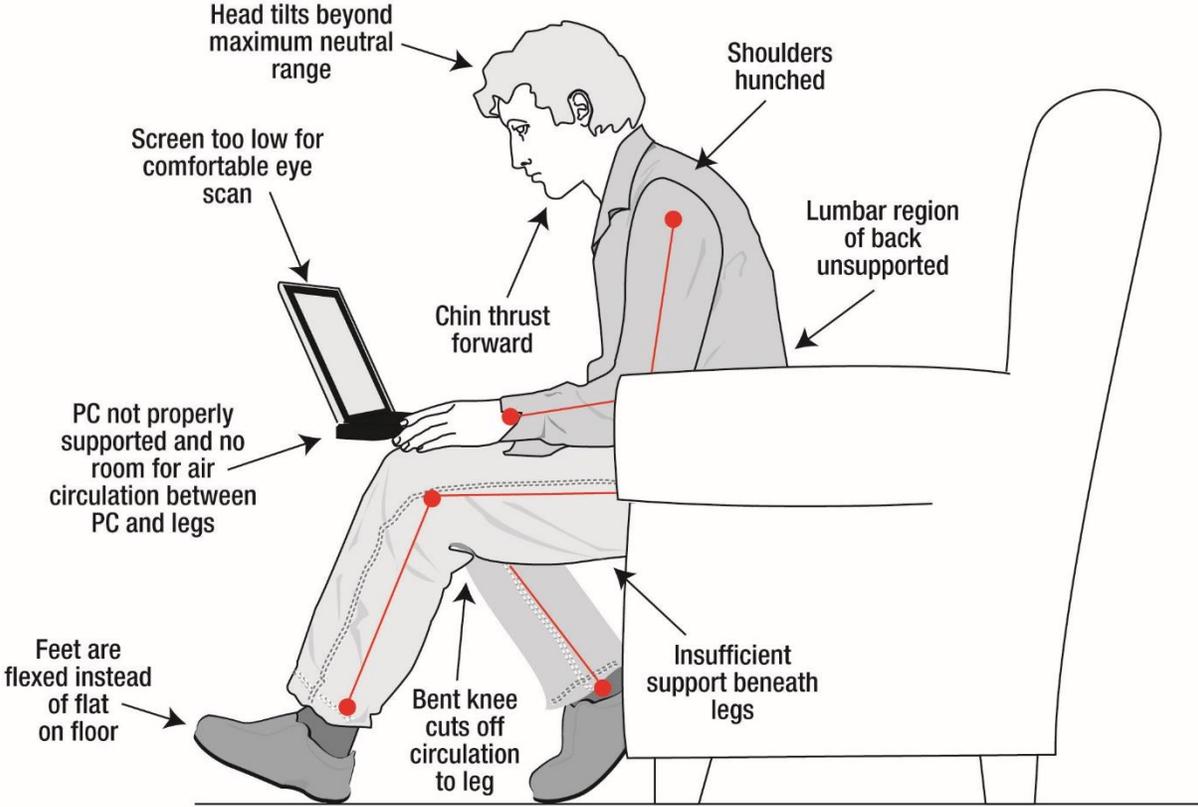
- ▶ Work surface depth to avoid extended reaching.
- ▶ Location of frequently used devices should be located in the primary zone.



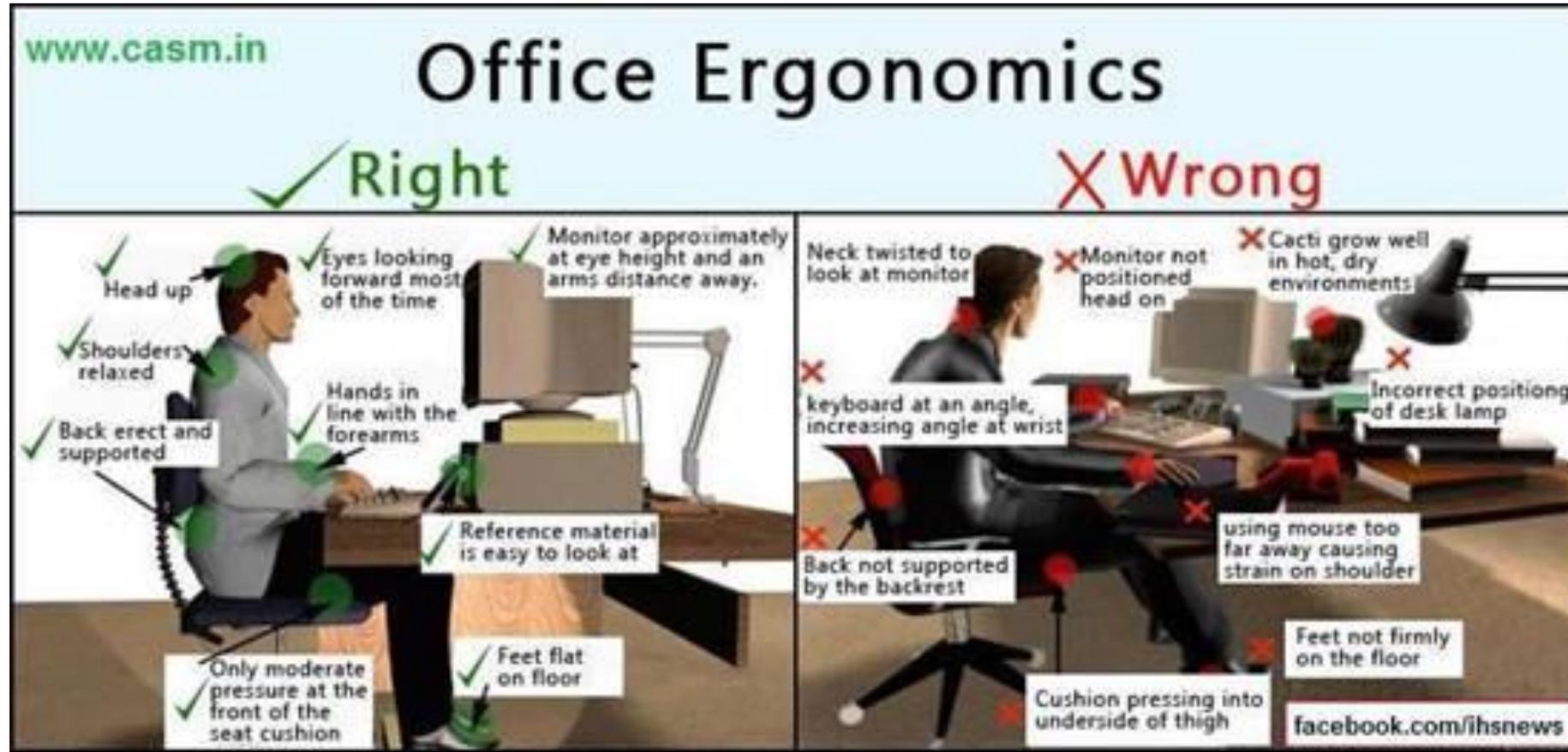
Correct & Incorrect Posture



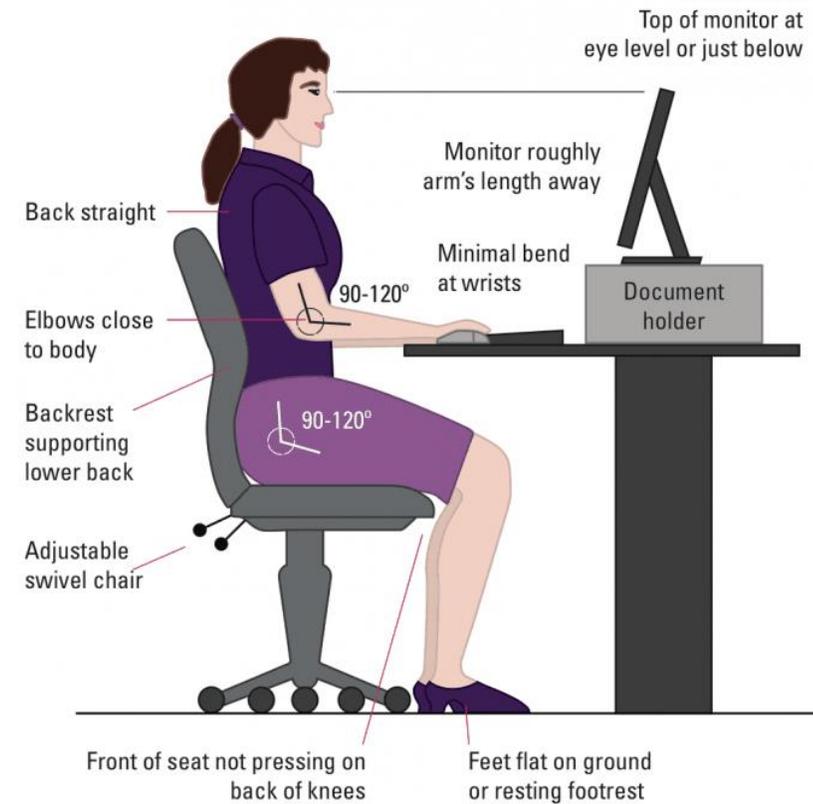
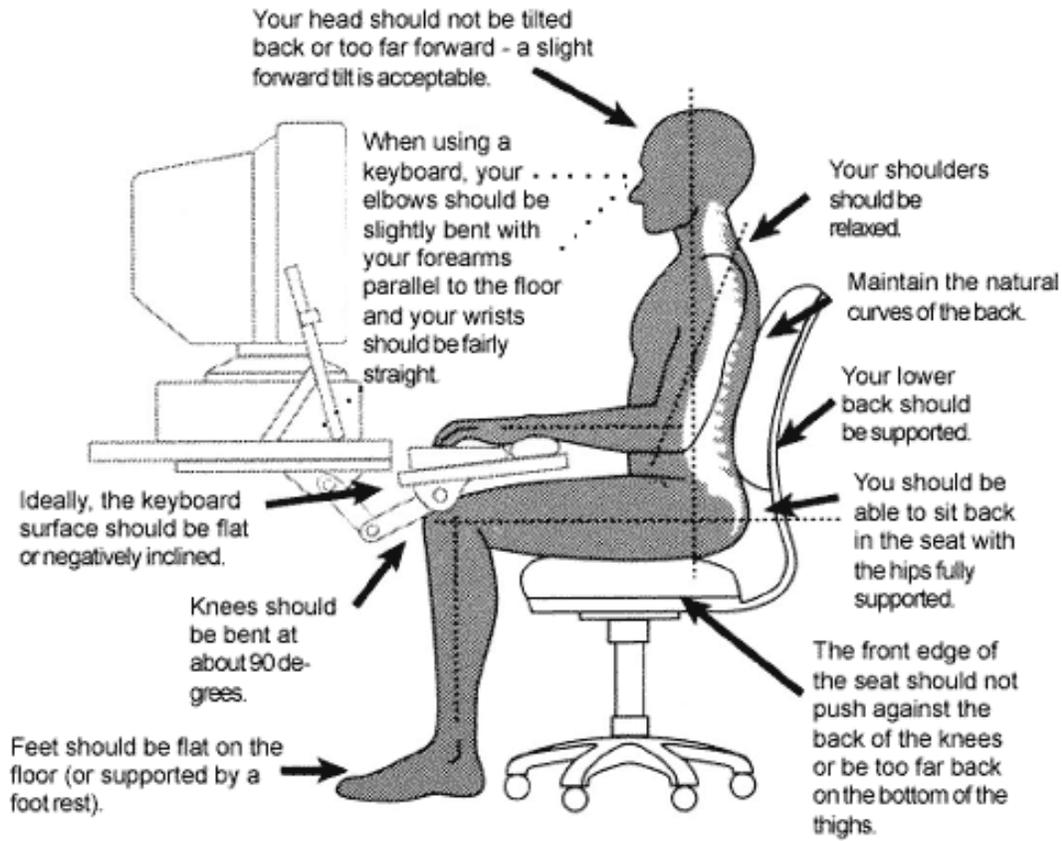
Improper Workstation Setup



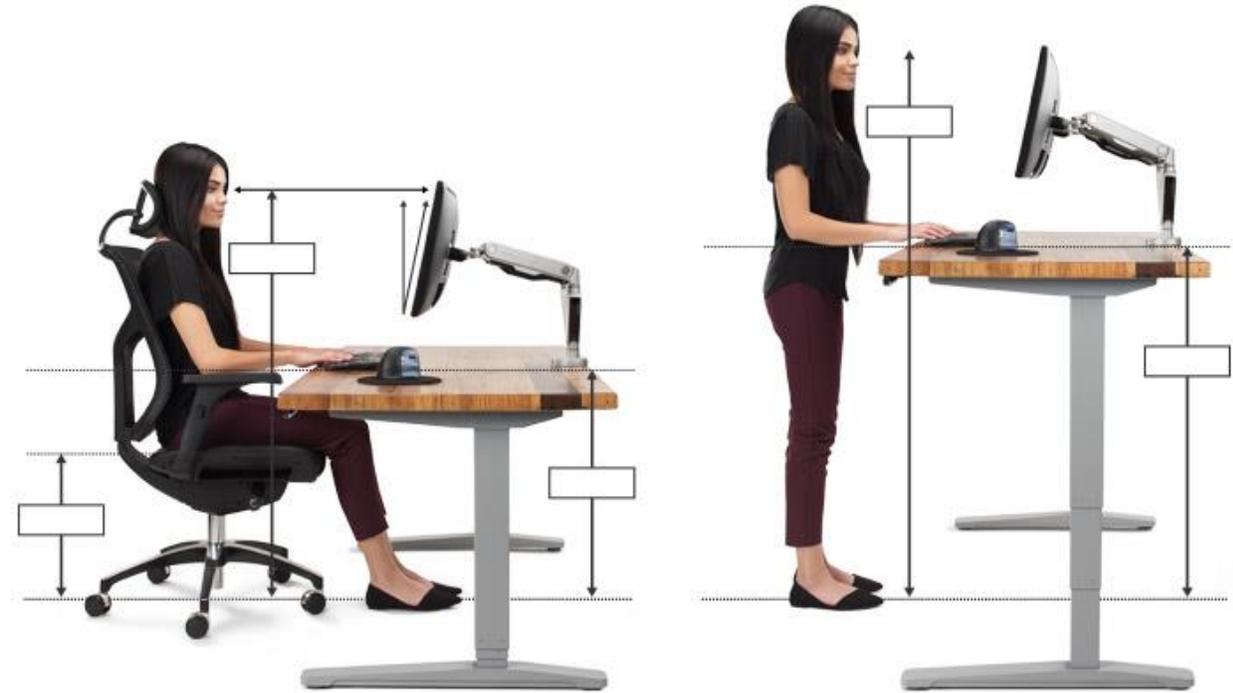
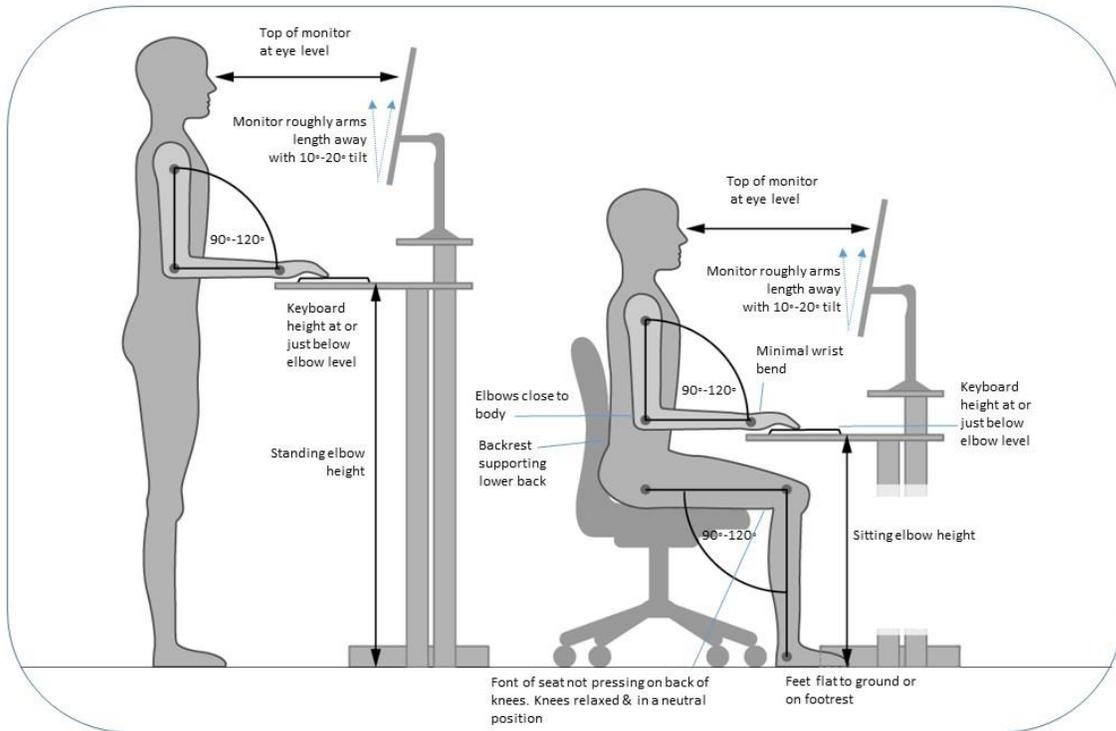
Correct & Incorrect Workstation Setup



Ideal Workstation Setup



Sitting & Standing Workstations



Ergonomic Reminders

- ▶ Center your body in line with the middle of the monitor with the top of the monitor at eye level.
- ▶ Keep your monitor about an arm's length in front of you.
- ▶ Adjust your chair so your feet rest on the floor and knees level with your hips.
- ▶ If your chair doesn't offer enough lumbar support, put a cushion/pillow between the curve of your back and the back of the chair.
- ▶ Keep items close to your body to avoid extended reaching.
- ▶ Keep your wrists in a straight position, not bent up or down while typing/keying.
- ▶ Use a headset to avoid cradling the phone between your neck and shoulder.
- ▶ Avoid glare by keeping bright light sources to the side of your screen.
- ▶ Change positions at least once per hour to avoid static positions!



Work/Rest Period

- ▶ An element of a good prevention strategy.
- ▶ Provide regular breaks by inserting a different kind of task into the routine.
- ▶ Some studies recommend 5 minutes of rest per hour of typing.
- ▶ Other studies recommend 15 minutes of rest per four hours of work.

Working at Home Checklist

1. FIND THE RIGHT ENVIRONMENT

SETUP	RECOMMENDATIONS	CHECK
The workspace is in an area that can be well lit, and an additional light source for working at night	<ul style="list-style-type: none">- Move desk space to well lit area- Invest in a desk lamp	<input type="checkbox"/>
The workspace does not project glare onto the computer screen from windows or light sources	<ul style="list-style-type: none">- Ensure the position of the desk is facing at least 90 degrees away from a window	<input type="checkbox"/>
The workspace is clear of obstacles under desk and around work space	<ul style="list-style-type: none">- Clean area before using the space	<input type="checkbox"/>

Working at Home Checklist *continued...*

2. FIND THE RIGHT BODY POSITION

Position yourself so that you meet the below posture with corresponding angles.

SETUP	RECOMMENDATIONS	CHECK
Elbows are at or just above desk height	<ul style="list-style-type: none">- Raise chair height if adjustable ergonomic chair insitu- Reduce desk height if adjustable standing desk is insitu- Check chair arm rest height and how you use these (are you leaning onto them, if so, remove arm rests from chair or replacing chair may be beneficial)	<input type="checkbox"/>
There is a 90-120 degree angle of the elbow joint when seated	<ul style="list-style-type: none">- Check chair arm rest height and how you use these (are you leaning onto them, if so, remove arm rests from chair or replacing chair may be beneficial)- Bring keyboard and mouse closer to body (no more than 12cms away from front edge of desk)	<input type="checkbox"/>
There is a 90-120 degree angle of the hip joint when seated	<ul style="list-style-type: none">- Adjust the seat back to recline slightly- Ensure you sit to the back of the chair where your back can be fully supported by the back of the chair	<input type="checkbox"/>
There is a 90-120 degree in the knee joint	<ul style="list-style-type: none">- Raise the seat height so that feet are flat on floor if the chair is too low- Use a footrest (you may find that positioning your chair so that your elbows are at desk height lifts your feet off the floor, if this is the case, invest in a footrest)	<input type="checkbox"/>
Your back is straight and supported	<ul style="list-style-type: none">- Use a chair with lumbar support- Use a chair with a high back	<input type="checkbox"/>
You are looking straight ahead when looking at the computer screen	<ul style="list-style-type: none">- Raise the computer screen so that the top third of the screen is at eye level	<input type="checkbox"/>

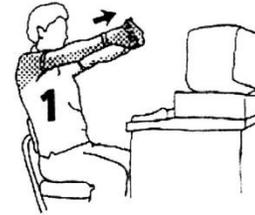
Ergonomic Stretches

- ▶ Stretch every hour or so throughout the day.
- ▶ Consult with your physician before starting any stretch program.

Computer & Desk Stretches

Approximately 4 Minutes

Sitting at a computer for long periods often causes neck and shoulder stiffness and occasionally lower back pain. Do these stretches every hour or so throughout the day, or whenever you feel stiff. Photocopy this and keep it in a drawer. Also, be sure to get up and walk around the office whenever you think of it. You'll feel better!



10-20 seconds
2 times



10-15 seconds



8-10 seconds
each side



15-20 seconds



3-5 seconds
3 times



10-12 seconds
each arm



10 seconds



10 seconds



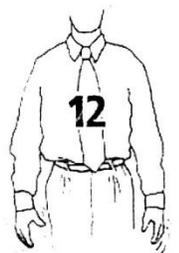
8-10 seconds
each side



8-10 seconds
each side



10-15 seconds
2 times



Shake out hands
8-10 seconds

Ergonomic Items for Comfort

Uncaged Ergonomics

- ▶ <https://uncagedergonomics.com/>
 - ▶ WorkeZ Standing desk \$59.99
 - ▶ CHANGEdesk Mini Standing Desk Conversion \$99.99
 - ▶ CD4 Ergonomic Laptop Stand and Standing Desk \$89.99

Vari

- ▶ <https://www.vari.com/products/>
 - ▶ VariDesk Converters for desktops and small spaces
 - ▶ \$175-\$495



Ergonomic Items for Comfort *continued...*

- ▶ <https://www.alimed.com/ergonomic>
 - ▶ **Net Stand \$36**



Additional products can be found at:

- ▶ <https://www.bedbathandbeyond.com/store/s/ergonomics?ta=typeahead>
- ▶ Other suggested ergonomic items include document holders, wrist rests, headsets, and glare screens.

Contact for Questions

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