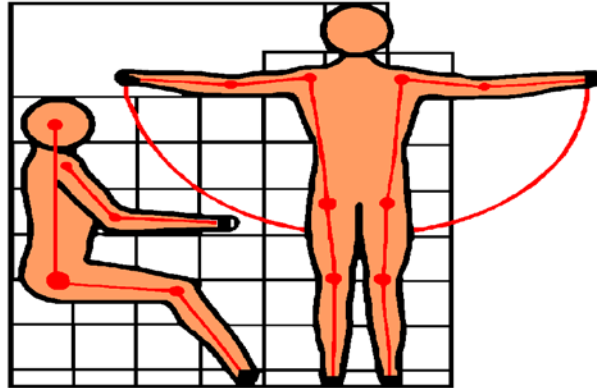




**VIDEO DISPLAY TERMINAL  
INJURY & ILLNESS PREVENTION**

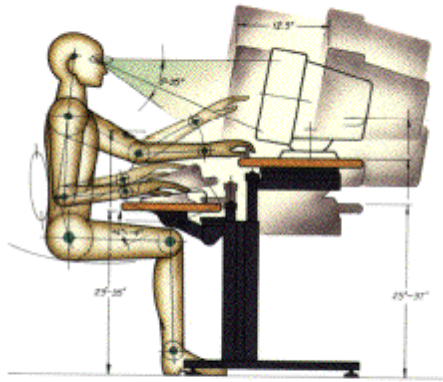
**HEALTH & WELLNESS PROGRAM**



In support of an environment that invites employees to achieve their potential, Westside Community Services has a mission to protect, maintain and promote the health and general well being of our employees. This ergonomics guidebook is designed to advance this mission by helping you create a workstation that prevents injury.

**Ergonomics** is the fit between the worker and the work environment, that includes the tools and materials used, the tasks performed and the environment in which the work is performed. Ergonomics is not just a science but a way of thinking about design of tools and equipment, the layout of the workplaces and the overall organization of work.

## HOW TO USE THIS HANDBOOK



This booklet is designed with you in mind. It's best to read it entirely before making changes to your workstation because many of the adjustments discussed are interrelated.

There is a great deal of information and suggestions to help improve your work-site, but remember, you know your body best and slight variations in body posture are alright.

Use this as a guidebook to learn about ergonomics. Then determine what works best for your work site by using the guidelines provided.

To remain comfortable and prevent injuries, we have included a set of exercises that can be done at your workstation and should be a part of your daily routine.

Fitness, flexibility, endurance and total body condition also play an important role in staying healthy. If you have questions or concerns, feel free to contact Te'yon Price @ extension 328.

## SEATING

The chair is one of the most important parts of your office equipment. A good chair can place you in a desirable position, provide good support for your back and provide comfort at your workstation. The following tips should be applied to positioning your chair to compliment your specific body dimensions:

### Seat of Chair

The chair should be adjusted so the seat is at a level, which allows you to place your feet flat on the floor and place your thighs horizontal to the floor. This position enables the blood to flow easily to your feet and legs.

A chair that swivels permits you to keep your body and spine in alignment by avoiding bending or twisting at the waist and still affords mobility.

Your chair should be at a height, which places your lower arms at a right angle to your upper arms. This allows your shoulders to relax while typing at your keyboard.

### Back of Chair

The back of the chair should be adjusted to give you firm support in your lower back and torso. Avoid leaning forward in an unsupported position because this puts additional stress on your back and causes the shoulders and neck to slump forward.

The chair is most beneficial when you sit back, allowing the back of the chair to support your back. This keeps the vertebrae of your spine in line and prevents soreness and fatigue of the back muscles.

Sitting for long periods of time can put stress on your spine, so it is helpful to change positions frequently. In addition, take a moment to stand and stretch or walk away from your desk.

### Legs

The height of your workstation should enable your legs to fit comfortably underneath the work surface. Standard workstation height is from 23-28 inches from the floor.

## VISUAL DISPLAY TERMINAL (VDT)

Placing your terminal at the correct height eliminates excessive head, neck, and eye movement that can contribute to fatigue. Visual Display Terminals, like all electrical devices, give off a small amount of radiation. Research has determined the level of electromagnetic radiation from a VDT is so minimal that it is not considered harmful. To reduce exposure to radiation it is recommended that you sit at least 40 inches from other VDT's and 18-24 inches away from your VDT:

### VDT Placement

Adjust your monitor slightly below eye level when sitting at the keyboard. If your monitor needs to be raised in order to be at eye level, then a monitor stand should be used.

Decrease any sunlight with drapes or blinds and prevent glare by placing your screen at a right angle to any window.

Tilting your screen slightly down, no more than *15 degrees*, will diminish any glare from overhead sources.

Decreasing the brightness and increasing the contrast to a comfortable level will help avoid eyestrain.

You may need to re-adjust these settings as the light changes throughout the day.

### Glare Guards

If you are still experiencing glare after these steps, you may benefit from an anti-glare filter. These are screens that attach to the front of the VDT and filter out excess light without compromising clarity.

If after these modifications, you are still experiencing problems with glare, speak with your manager about the possibility of reducing the wattage of any light sources.

Eyes can tire easily when doing tasks such as reading or Visual Display Terminal work for prolonged periods of time. Although eye fatigue is common, it is generally temporary and easily remedied:

### Exercises

Blinking frequently helps keep your eyes moist, which is especially important if you wear contacts. Rest your eyes frequently by looking up and focusing on a distant object, closing your eyes and covering them with your hands, or by doing other tasks such as making a phone call or delivering a document.

It's best not to read while resting your eyes from VDT work. Although there has been no evidence of permanent visual damage, eyes can become tired when working on a VDT for prolonged periods of time.

Exercise and periodic breaks from the screen can limit eye fatigue.

### Eye Exams

Have your vision checked on a regular basis. Yearly exams are recommended. Studies have shown that one out of every three people have some sort of uncorrected vision problem that can contribute to eye fatigue.

To ensure a thorough evaluation, explain to your vision care provider the type of visual tasks you do, how many hours you work at the computer and how far you sit from the screen.

And again, it is recommended to sit 18-24 inches from the screen.

## HANDS AND WRISTS

Cumulative Trauma Disorders (CTD's) can be caused by repetitious work, holding one position for long periods of time, non-neutral postures, and over exerting small muscles. Most cumulative trauma disorders are preventable and curable if caught early:

### Injury Prevention

- Break up repetitious work.
- Do not use your muscles to hold your hands or shoulders in a static position. Keep your arms and shoulders at ease as much as possible, even during short pauses.
- Stay away from positions near the extremes of your joints' range of motion; the most neutral joint position is about halfway.
- Minimize contact with hard or sharp surfaces. This is especially important at the wrists and elbows.
- Do not use too much force. Notice any exertions you have to make (i.e. lifting a heavy file) and see if they can be eliminated.
- Strike keyboard keys lightly because a forceful stroke puts pressure on your hands and fingers.
- Keyboard should be at a height that allows your upper and lower arms to be at a ninety-degree angle. This usually places the keyboard 25 to 35 inches from the ground. This height should keep your hands, wrists, and forearms in a neutral position.
- Every hour, take a 1 to 2 minute break from keying to perform another task. A "break" does not have to be a rest break – it can simply involved doing something else.
- Change posture and activities often.

## OFFICE EQUIPMENT

The purpose of an ergonomically correct workstation is to reduce stress and strain to the soft tissues within your body while performing tasks such as keying or mousing.

One of the simplest ways to reduce stress on your body is to organize equipment, supplies and furniture in the most efficient arrangement for daily tasks:

### Telephone

Do not cradle the phone receiver between the ear and shoulder to free the hands while talking on the phone. A shoulder cradle or headset will prevent you from compromising your neck and shoulder muscles.

Move the phone within easy arm's reach when you are at your computer.

### Mouse

The mouse or tracking ball should be placed near enough so that your arm is at your side and at a 90-degree angle while in use.

Do not reach too far to maneuver the mouse.

### CPU

The CPU should be placed on the floor by your desk, but make sure it does not crowd your feet or legs.

### Other Office Equipment

Make sure you do not have to twist or bend to reach frequently used office equipment such as a stapler or calculator.

## POSTURE

Good posture at the computer reduces fatigue and the risk of developing repetitive motion illnesses. The ideal seated posture at the computer is illustrated below:



- The shoulders and hips squarely face the desk or table.
- The shoulders are relaxed. The upper arms fall naturally at the sides.
- Forearms are parallel to the floor.
- Wrists are in neutral position.
- Thighs are parallel to the floor.
- Both feet are flat on the floor or supported by a footrest.
- The chair supports the curve of the lower back.
- The top of the monitor is at eye level or slightly below.
- The monitor is without glare.
- The working document is level with the monitor.
- Head and neck should be in an upright, relaxed and comfortable position.
- Avoid holding a fixed position for long periods of time.
- Avoid extreme reaching, lifting, or twisting.
- Avoid crossing your legs or dangling your feet.
- Alternate between different postures on a regular basis.

## SUGGESTED EXERCISES

The following exercises are relatively simple and can be done right at your desk prior to the days work activities:

### Relaxation

Fill your lungs with a deep breath taken through your nose. Hold the breath for a few seconds and then exhale through your mouth.

Repeat four times.

### Neck

Stretch your neck from side to side.

Repeat four times.

### Arms and Shoulders

Do not try this exercise unless you are in a stable “five point base” chair. Secure your chair and feet to prevent tipping over.

Lean your head, arms, and shoulder over the back of your chair.

Hold for a few seconds.

### Shoulders

Roll your shoulders backwards four times, making big circular movements with both shoulders.

Repeat four times.

### Back

Raise your hands level with your shoulders, keeping your elbows down. Squeeze your shoulder blades together and hold for a few seconds.

Repeat four times.

### Hands and Wrists

Hold your hands out in front of you. Raise and lower your hands by bending at the wrist.

Shake your hands like you are trying to shake water from your fingertips. Clasp hands and roll wrists.

Repeat several times.

## Fingers

Hold your hands out in front of you. Spread your fingers apart as far as you can. Hold a few seconds, then make a fist. Repeat four times.

Flex and extend your fingers several times.