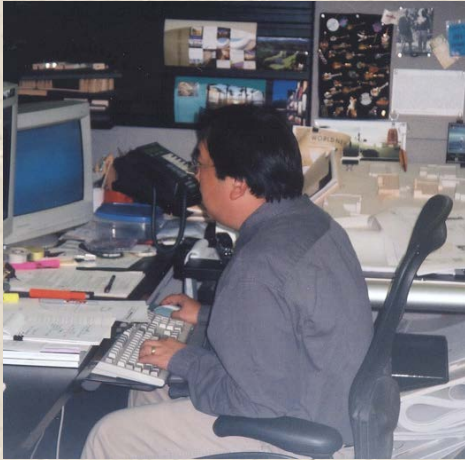


## 7. Sitting and Seating ... *essential tips*

- Avoid the “bike riding” sitting posture
- Find a sitting posture that suits you and your work style
- Make sure your chair fits you and provides proper support
- Frequently vary your sitting posture



# Sitting & Seating- Avoid the “bike riding posture”



Many people start out the day sitting back in their chairs in relaxed postures but within an hour or so they get drawn into their work and assume the “bike riding posture.”

It’s due in part to the hand and visual aspects of the task but is largely rooted in habit which can be kept in check.

This posture puts a lot of undue stress on just about every body joint involved and must be avoided. When you find yourself drawn into this posture, be reminded and make an effort to sit back and relax.

Bike Riding Posture includes...

- *Elbows kinked and closed*
- *Wrists often bent up*
- *Head / neck often cocked back*
- *Trunk bent forward*
- *Feet often tucked under the chair*

# Sitting & Seating

- Find a posture that suits you and your work style



Forward (active)



Upright



Reclined (relaxed)

People's sitting posture can vary widely but you can general classify them into 3 positions often based on the type of activities they perform and to a lesser degree their preference.

**Forward** or active sitting is generally assumed when activities involve a lot of reaching, paper handling or reading hardcopy on the desktop- more than just computer work.

**Upright** sitting is generally assumed when activities involve mostly computer work, a little reaching and perhaps referencing material on the desktop.

**Reclined** or relaxed sitting is assumed when people just use the keyboard/mouse and view the screen and don't depend on tools or materials on the desktop- no reason to reach forward.

Keep in mind, people are also likely to move between these postures as they change activities over the day like sitting back and relaxing when on the phone.

# Sitting & Seating- Forward active sitting

If your work activities involve a lot of reaching, writing, or paper handling in addition to computer work, “forward sitting” can be a very effective sitting posture. Sitting high and at the front of the chair enables you to reach and manipulate tools and materials with less bending of your trunk and less extension of your arms.

Keep in mind, in this active sitting position you will not be getting any back support from the chair so you’re spine is bearing the full forces of gravity and your muscles are working hard to hold your trunk erect. For this reason, it’s very important to maintain a good posture and to take every opportunity you can to sit back in the chair, relax and offload body weight to the chair backrest.



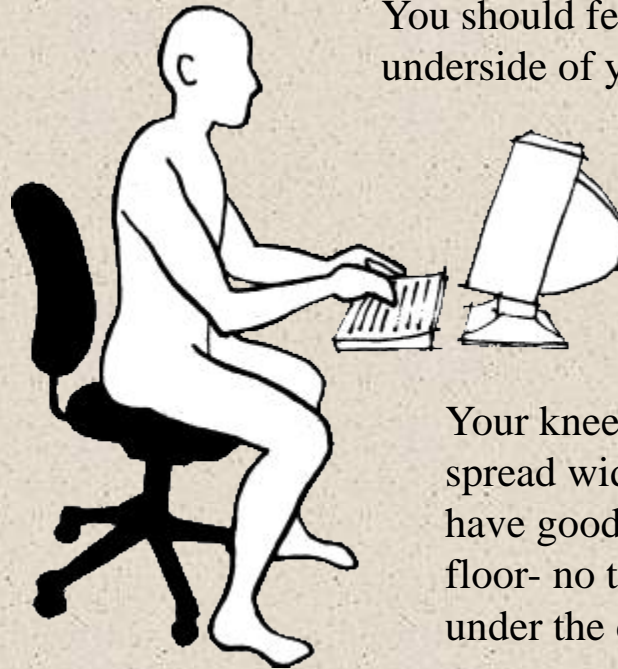
# Sitting & Seating- Forward active sitting

*...tips for “forward sitting” - good body posture & support*

You should adjust your chair high and sit toward the front of the seat pan with your knees dropped much lower than your thighs with an open trunk to thigh angle.

You should sit with your low back straight and your trunk held near erect- not bent forward.

You could benefit from a little forward tilt of the seat pan to reduce pressure on your thighs.



Your chair should have ample cushioning with a rounded waterfall contour at the front edge. You should feel no pressure on the underside of your thighs.

Your knees and feet should be spread wide apart and you should have good foot contact with the floor- no tucking your legs under the chair.

If you're up and down a lot from your chair, armrests could assist with these motions. Otherwise, in a forward posture you'll have little to know contact with your armrests.

# Sitting & Seating- Upright sitting

If your work activities involve mostly computer work but you do a moderate amount of paperwork or read and reference materials on the desktop, “upright sitting” can be a very effective sitting posture.

You can sit back in your chair with your low back contacting the backrest and with your trunk almost vertical. In this posture, you can relax as you work on the computer yet be poised for forward movement and reaching when the job demands it.

With just a little low back contact with the chair in an upright posture, you can reduce muscle effort of your back by as much as 25% and loads on the spine by about 10% over that of sitting forward in your chair.



# Sitting & Seating- Upright sitting

*...tips for “upright sitting” - good body posture & support*

You sit back in chair with trunk held near vertical and with good low back contact with the backrest. Chair should have backrest that reaches your mid-back.

Your chair should have adjustable backrest height or an adjustable lumbar support feature to engage your lumbar curve (mid-point in curve) or position that feels ahh!



Seat depth should allow you to sit back to make contact with the backrest with about 3-fingers clearance between underside of knee and the front edge of chair.

Chair armrests can benefit you if your computer input is intermittent versus continuous.

If you feel you're an Upright sitter with a tendency to bend forward a bit, look for a chair with a small/low backrest that adjusts forward enough to engage your sacral/pelvis region (just above your butt).

You should have good foot contact with the floor or have a large footrest for support.

# Sitting & Seating- Reclined relaxed sitting

If your work activities involve primarily computer work: keying, mousing and viewing the screen with little to no need to access tools or materials on the desktop, then “reclined sitting” can be an ideal posture.

In this posture, your trunk is leaning to the rear and back is being fully supported by the backrest of your chair. You’re sitting lower in space and you’re farther from your desktop which makes reaching somewhat difficult.

In a Reclined posture, the chair is doing most of the work since you are offloading much of your upper body weight. Loads on the muscles and pressures on your spine can be reduced by as much as 40%- that’s why we call it “relaxed sitting.”





# Sitting & Seating- Reclined relaxed sitting

*...tips for “reclined sitting”- good body posture & support*

You sit back in the chair in a rear leaning posture with your back fully supported by the backrest. Your trunk angle is wide open. It's really important that your butt is all the way back in the seat and your low back is in contact with the backrest- NO SLUMPING!

Your chair should have a high backrest that reaches just below your shoulders. The backrest height should be adjustable or include an adjustable lumbar cushion feature.



Your chair should have a really good suspension system that allows you to adjust the tension to support your body weight. This assures that it provides some motion-assisted support as your body moves back to forward and vice versa.

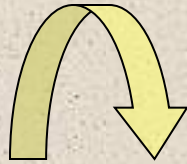
Your legs and feet should be stretched forward a bit. A footrest can help to stabilize your body in this posture.

Chair armrests can be a valuable feature since your arms will be extended forward in a back leaning posture and in need of support.

# Sitting & Seating

- Your chair should fit you and provide proper support

Getting back support from your chair reduces loads on your spine and relieves muscle fatigue.



A couple of inches clearance between the front of the seat and back of the legs will keep blood flowing to your legs.



Chair armrests can provide needed upper limb support if your work involves intermittent keying and mousing and the need to rest your arms periodically. For intensive mouse use, armrests can be essential.

Having your feet planted firmly on the floor reduces uncomfortable pressures on your thighs and buttocks and also enables you to move more effectively in your chair to perform your work.



# Sitting & Seating

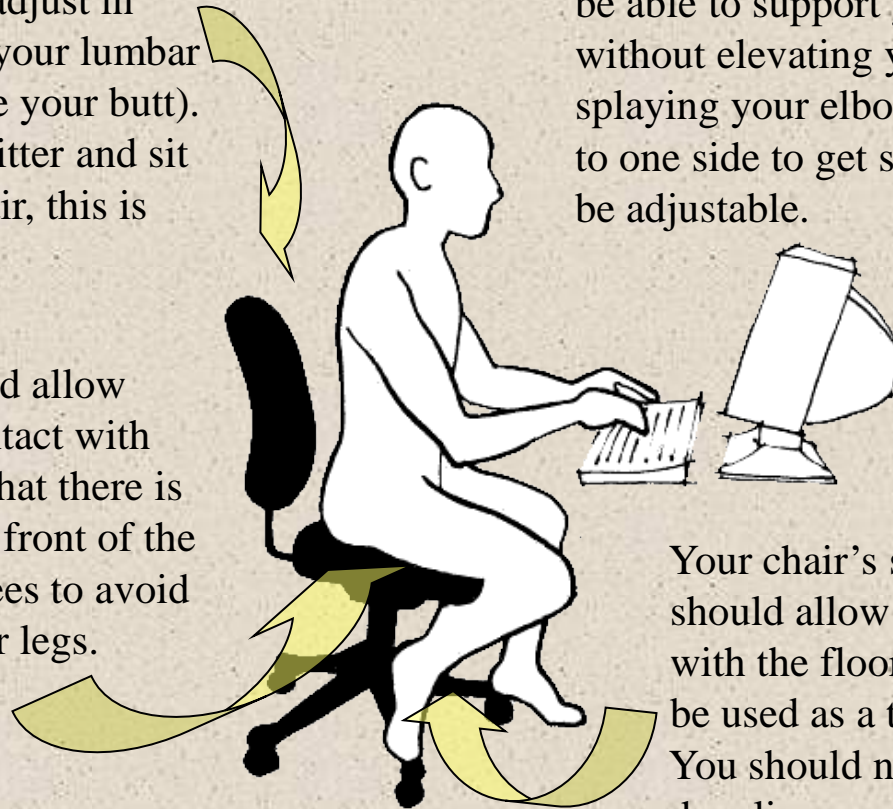
## - Your chair should fit you and provide proper support

Your chair backrest should adjust in height and angle to contact your lumbar or pelvic region (right above your butt). If you're a Forward active sitter and sit toward the front of your chair, this is less important.

Your chair's seat depth should allow you to sit back and make contact with the backrest while ensuring that there is a 3-finger space between the front of the seat and the back of your knees to avoid cutting off circulation to your legs.



If your chair has armrests, you should be able to support your forearms without elevating your shoulders, splaying your elbows wide or leaning to one side to get support- they should be adjustable.



Your chair's seat height adjustment should allow you to make foot contact with the floor. A footrest should only be used as a temporary solution. You should not have to resort to dangling your legs from a chair that's too high or resting your feet on the base of the chair.

# Sitting & Seating

## *...tips on using a footrest*

If your feet don't contact the floor, it's usually for one of these reasons...

- your chair doesn't adjust low enough for your size
- you must raise the chair to reach a work surface that is too high

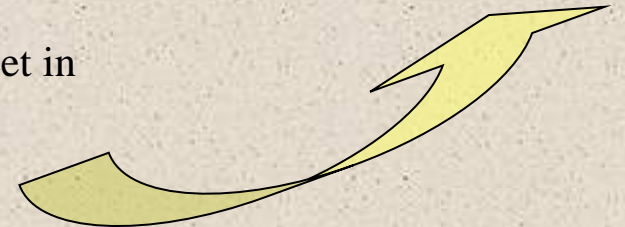
The best way to solve this problem is to have your work surface lowered so you can lower your chair to make foot contact with the floor.

If your feet still don't contact the floor, you need to find a chair that adjusts low enough to fit you.

If you can't achieve either of these solutions, you'll probably have to get by with a footrest.

Be aware, footrests limit front to back and side to side leg positioning that is needed for tasks that involve a lot of seated movement or reaching forward. In such cases, lack of foot contact can result in a great deal of stress on the spine.

If your job requires these functions, it is best to get your feet in contact with good old terra ferma to prevent problems.



# Sitting & Seating

## *...tips on getting low back support*

If you sit at the front of your chair with no back support, it's usually for one of these reasons...

- Your task requirements draw your body forward (active sitting)
- Your chair is too high and you sit forward to make foot contact with the floor
- Your chair is too deep and you can't move far enough back in the seat pan to contact the backrest

This is also the reason you might have uncomfortable seat contact at the back of your knees.



If your seat is too deep, you can sometimes make do by applying a portable back-cushion.

As a long term solution, you need to find a chair with a shallow seat pan or one with a seat pan that slides in and out to reduce the seat depth and allows your back to contact the backrest.



# Sitting and Seating

## *...tips on getting low back support*

Some job tasks cause you to sit in an active “forward sitting” posture -i.e., reaching, paper handling or reading hardcopy on the desktop - without getting low back support from your chair.

However, in a large number of cases people sit forward because the work setting and tool arrangement is poorly configured.

If the things you need to view most are too far from your eyes or too low to view when sitting back in your chair, you will tend to sit forward.

Try adjusting your monitor distance or placing hardcopy on a document holder to reduce the need to sit forward or bend forward.



If the things you need to reach a lot are too far from your seated body, this will also cause you to sit forward in your chair.

Try arranging the tools/materials you use the most closer to your body to reach without bending forward.

If none of the above changes allow you to sit back in your chair, then active “forward sitting” is okay.

But keep in mind, since this is a high load-bearing posture that can be quite fatiguing over the day, take every opportunity to sit back and relax.

*Click on the Paperwork and Filing icon in this learning guide to learn more about the arrangement of your tools and materials to minimize forward sitting.*

# Sitting and Seating

- Frequently vary your sitting posture



Locking

It's very important to sit in a stable position when doing exacting visual work and/or keying and mousing at the computer but experts agree that seated movement is also essential.

Movement stimulates blood flow to nourish the body and it relieves pressure on sensitive body parts such as muscles, nerves and the discs in your spine.



Rocking

In fact, the only known risk factor for developing low back problems associated with office work is holding a static sitting posture. So change postures frequently. Move between upright, forward and recline and put your feet up if you want- whatever feels good at the moment.

If your chair permits, you can even try rocking, which stimulates blood flow and pumps nutrients into your spine.

Remember “your best posture is your next posture.”

Your best posture is your next posture!





# Sitting & Seating

## *...tips on posture change and moving about*

Regardless of how good your sitting posture is or how well your chair fits you, long periods of sitting increase loads on your spine, put pressure on muscles and nerves and reduce nourishment to your spine and upper limbs.

On the other hand, standing for long periods puts a lot of stress on your hips, knees and feet and makes the heart work harder to pump blood “uphill” from your feet- it’s fatiguing.

Fortunately, shifting between sitting and standing postures and getting up and moving about seems to provide the healthiest results for our bodies. Sitting requires less energy and standing and moving promotes better nourishment.

People who shift between standing and sitting over the day are less likely to develop low back problems. So take advantage of every opportunity to get up and move about over the workday.



*Take a hike!*

### Ergo Fun Facts

Studies examining workers who alternated between sitting and standing over the work day found that their bodies shrink less and their feet don’t swell as much as those who just sit all day at the computer.