

## 8. Counter Work ...*essential tips*

- Find an effective posture to perform your work
- Optimize your keying & screen viewing postures
- Minimize grasping & lifting motions
- Use efficient body motions to reach
- Operate safely when working from a stool
- Get some cushioning for your feet and wear supportive footwear



*You'd have to be an orangutan to reach that!*

# Counter Work- Effective Working Posture

*...sitting, standing or perching*



Sitting on  
Low Chair



Sitting on  
High Stool

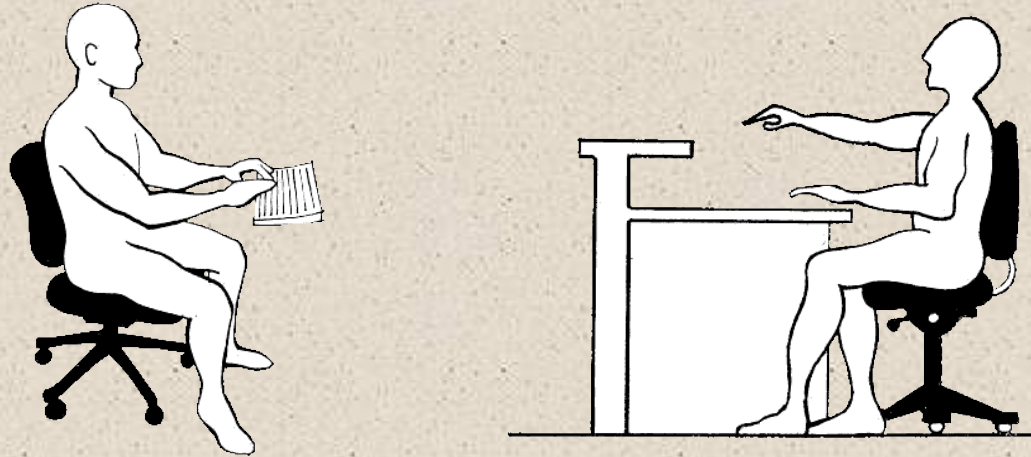


Perching on  
Mid-height Stool



Standing  
at Counter

# Work Postures at Sitting-height Counters



Low counters at about 30 inches high are usually good for activities like computer work, phone work and primarily voice interaction with customers over the counter, work that a receptionist might do.

You can sit in a standard office chair, ideally with a slightly back-leaning posture to offload bodyweight to the chair and backrest.

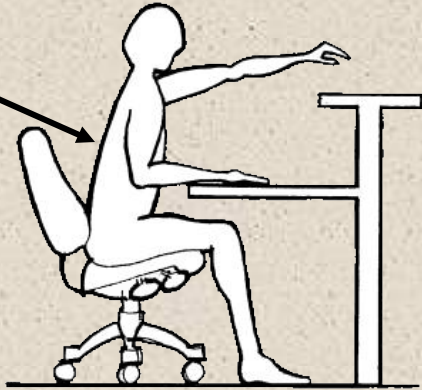
Low counters are not good for frequent material exchange over the counter because when you're sitting low it's more difficult to reach to the counter.

If you sit at a low counter and do a lot of reaching and transferring of materials, check out the next slide.



# Work Postures at Sitting-height Counters

Low back  
is flattened



## Sitting Back and Bending Forward

When sitting back in your chair and reaching forward you can see in the above diagram that the person's back takes on a "C" shape and the lower back completely flattens.

In this posture the pressures on the spine are extremely high so you don't want to assume this sitting posture if you do a lot of forward reaching.

Low back  
has nice  
inward curve



## Sitting Forward and Perching

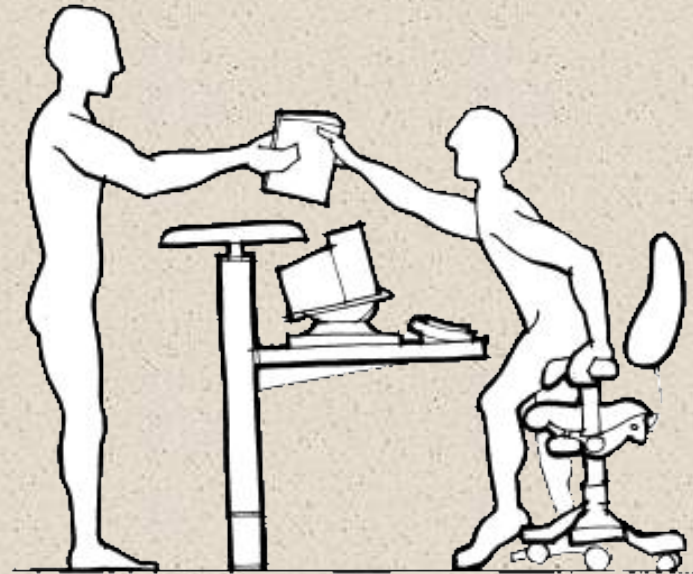
In this diagram, the person has raised the chair up and is sitting at the front of the seat with their knees lowered and their legs and feet spread out a bit.

This allows the person to reach more effectively while keeping the inward curve in the low back.

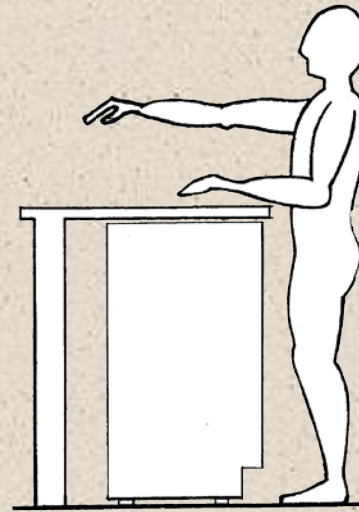
This results in a lot less stress on the spine and it increases the distance they can reach by several inches.

# Work Postures at Sitting-height Counters

If the reach over the counter is too far or too high, it's better to get up from your chair than to bend your trunk forward excessively, particularly if materials are bulky or heavy.



# Work Postures at Standing-height Counters

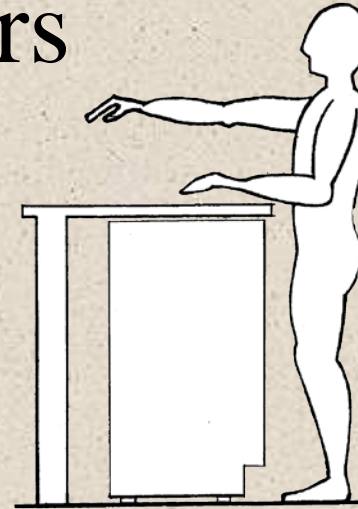


High counters at about 39 inches are best suited for activities such as reaching and transferring materials, work that a librarian or a plan checker might perform.

Standing is the best posture for this type of reaching because you can use your feet to move front to back or side to side rather than extending your arms and shoulders. Elevating one foot while standing at a counter helps to restore that nice curve in the low back.

Leaning upper body weight on a high counter can be done without much bending. Both of these techniques are a good way to reduce the stress on your spine.

# Work Postures at Standing-height Counters

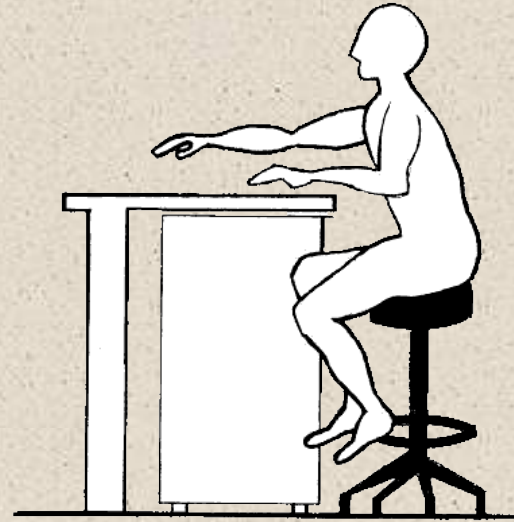


Unfortunately, standing is very hard on the large postural muscles that must work nonstop to hold your body erect so you get tired more quickly than when sitting.

It's also hard on your joints, i.e., hips, knees, ankles and your feet. A good routine is to stand when you're busy transferring material and to sit on a high stool when things get slow and you're just working on the computer.



# Work Postures at Standing-height Counters



While high counters are best suited for reaching, when sitting on a high stool, the reaches tend to be harder on the low back because you can't recruit your feet to do any of the moving. Foot contact with footrest or foot ring on the stool will permit some movement but not a lot.

Your trunk angle is already closed at almost 90 degrees and if you must bend forward to reach it will close the angle even more and drive up pressures on the spine.

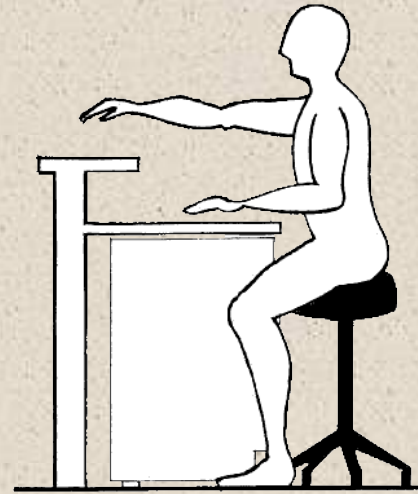
If you work at standing counters, it's best to alternate between sitting and standing over the day.

## **Ergo Fun Facts**

A recent study of bank tellers found that those who stood on the job reported more back, hip and foot pain and those who sat on the job reported more back, neck and shoulder pain. In contrast, tellers who did a mix of standing and sitting on the job reported 50% less end-of-day pain overall compared to the other two groups.



# Work Postures at Sit-stand Counters

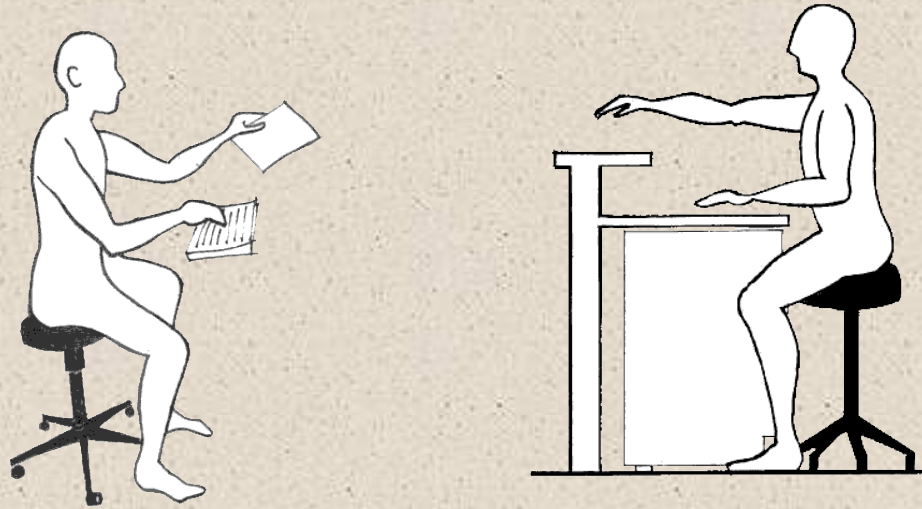


Medium height counters of about 34” to 36” can be used in either sit or stand postures. This is the height range that is most often employed for ADA accessibility at service counters.

Additionally, the sit-stand counter is designed for standing height work where bulk materials (cartons) are handled such as in copy rooms or printing departments. When standing, most people are working at the material height of around 40” + which requires less bending.

For counter tasks that involve computer work, writing and exchanging materials the sit / stand counter is often too low to be used when standing because it requires forward bending of the trunk forward- except for about 5% of the very small female population.

# Work Postures at Sit-stand Counters



The sit-stand counter is ideal for “perching” on a low height stool since most people can sit with their feet on the floor, use the computer at fairly comfortable height and forward reaching is enhanced in this perch position.

Perch sitting is also ideal for work that involves getting up and down a lot- a whole lot better than getting up from a low chair or mounting and dismounting a high stool.

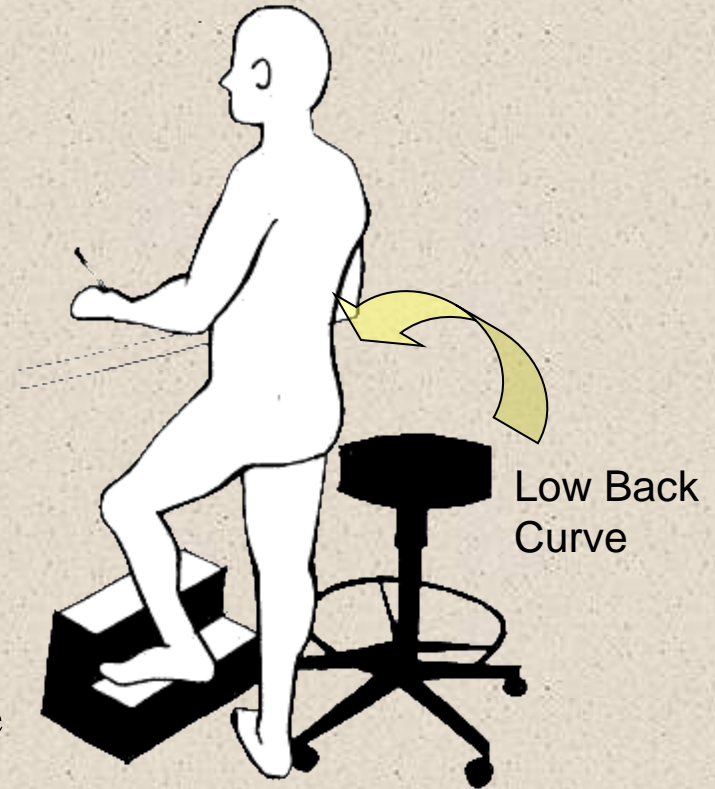
It provides the best of both worlds for many counter functions so long as the reach to the customer and any materials involved can be kept within a 24” radius of the body centerline. Beyond that, it’s best to look at true standing height counters to allow leg and foot movement.

# Working at Standing-height Counters

## *...using your body efficiently*

When working at a counter the ideal posture is an equal mix of sitting and standing. Studies have shown that people have far less end-of-day back and leg discomfort when they alternate between sitting and standing over the day.

When standing, you should try to keep your back straight with an inward curve in your low back region. It helps to raise one foot on a rail or footrest to restore the curve in your low back and reduce loads on your spine.





# Counter Work

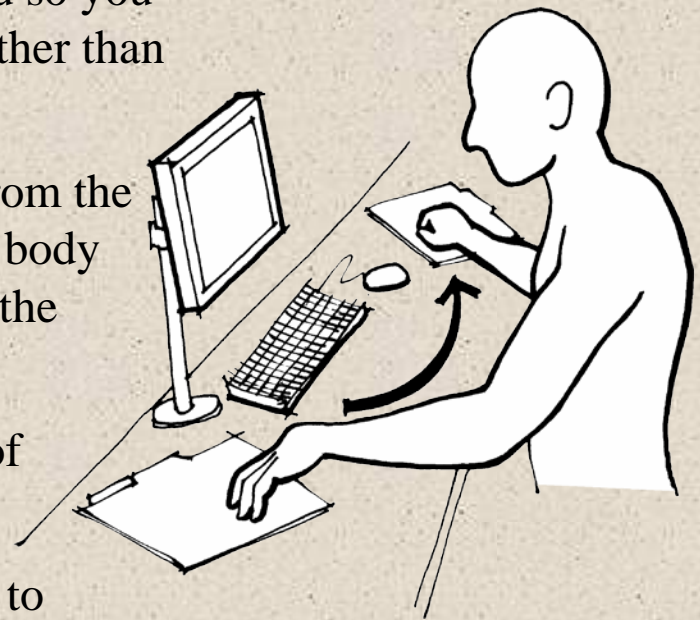
*...slide material to minimize grasping & lifting*

If possible, it can be very effective to have clear counter space (no tools or materials) directly in front of you so you can slide material across the front of the counter rather than having to grasp and lift each item.

In this drawing, the person is receiving materials from the customer at the left, processing the item directly at body centerline and then sliding the item to the right for the customer to pick up.

This sliding principle can be applied to any mode of material transfer between you and the customer.

Also consider that most right handed people prefer to receive material at their left side to leave the right hand free to write, key or mouse. However, it's often a bonus if one counter position is set up to work from right to left to accommodate *lefties* and to allow *righties* to alternate arm and body movements.





# Counter Work

*...using your body efficiently to reach*

When counter activities require extended side reaching motions with your arms, try moving with your feet in side-to-side stepping motions.

These larger body movements reduce stress on your arms and shoulders and stimulate blood flow to reduce fatigue



# Counter Work

*...optimize your screen viewing posture*

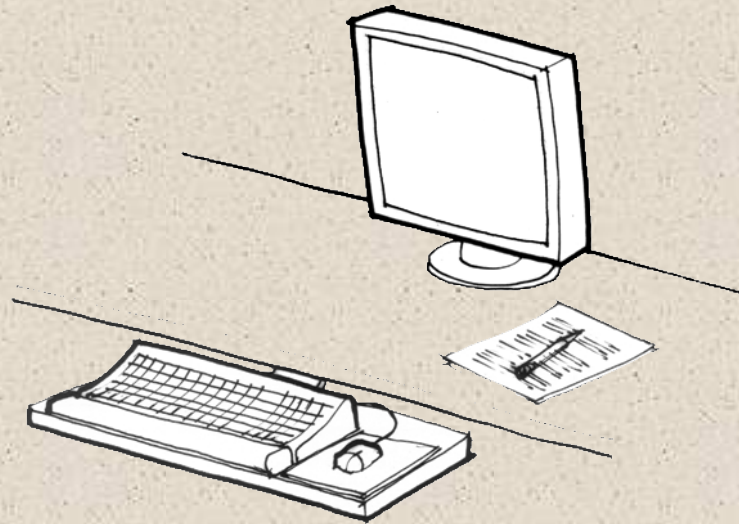
Arguably, the most helpful thing you can do for your body when working at a counter is to get the screen at a position where you don't have to bend your head forward or back.

Since most counters are shared by staff, it's ideal to have the screen mounted on an adjustable armature providing fingertip control of the display position for all staff.



# Counter Work

*...optimize your keying / mousing posture*

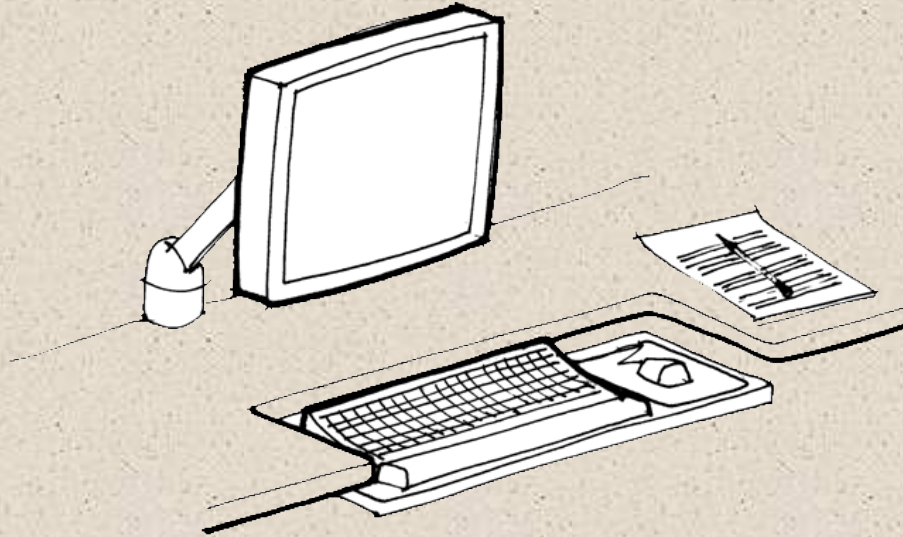


If you perform a fair amount of keying and mousing at the counter and find yourself raising your arms and shoulders, it might be helpful to apply an adjustable tray to the counter.

Be aware, this will likely increase your reach to tools and materials on the counter and to the customer. If you frequently transfer materials or handle bulky materials like books, you should consider other options.

# Counter Work

*...optimize your keying / mousing posture*



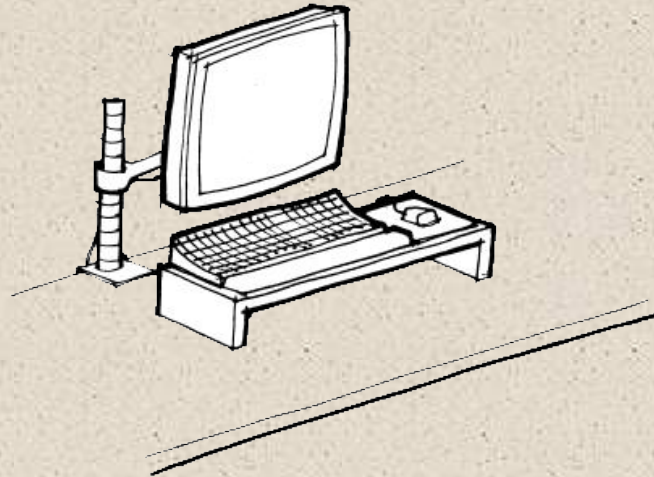
Another method of accommodating a comfortable keying/mousing posture is to recess an adjustable tray into the counter. This option does not increase your reach to other tools and materials or to the customer.

Be aware, this option does limit your ability to slide material and is probably best for counter work that involves transferring single forms or small files rather than bulky materials like books, large files or packages.



# Counter Work

*...optimize your keying / mousing posture*



If the counter is too low for you, you can place a raised platform on the counter to elevate the keyboard and mouse. This doesn't increase your reach to the customer and if the counter is deep enough, you can also have space at the front edge to slide materials. This option is probably best if you do very minimal keying but handle or transfer a lot of material.

If you're faced with the unfortunate situation where you find the counter too high for keying and mousing and you also handle large materials where adjustable trays are not a good option, you're looking at a major project that could include an elevated floor behind the counter, alternate high and low counters for different size staff or height adjustable counters.

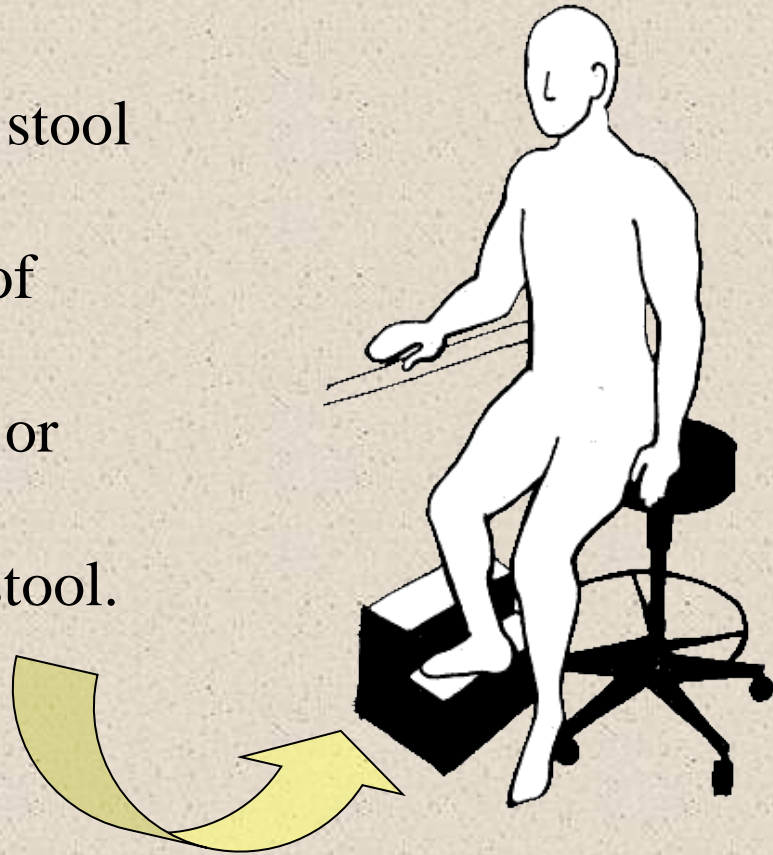
# Counter Work- Operate safely on a stool

*...getting on and off the stool safely*

Avoid hopping on or off a stool that's too high.

This is a common source of back strains.

Instead, use a wood block or rigid footstool as a step to climb onto and off of the stool.



# Counter Work- Operate safely on a stool *...avoid sitting with your feet unsupported*

Avoid sitting with your legs dangling and your feet unsupported!

It makes it difficult to reach things.

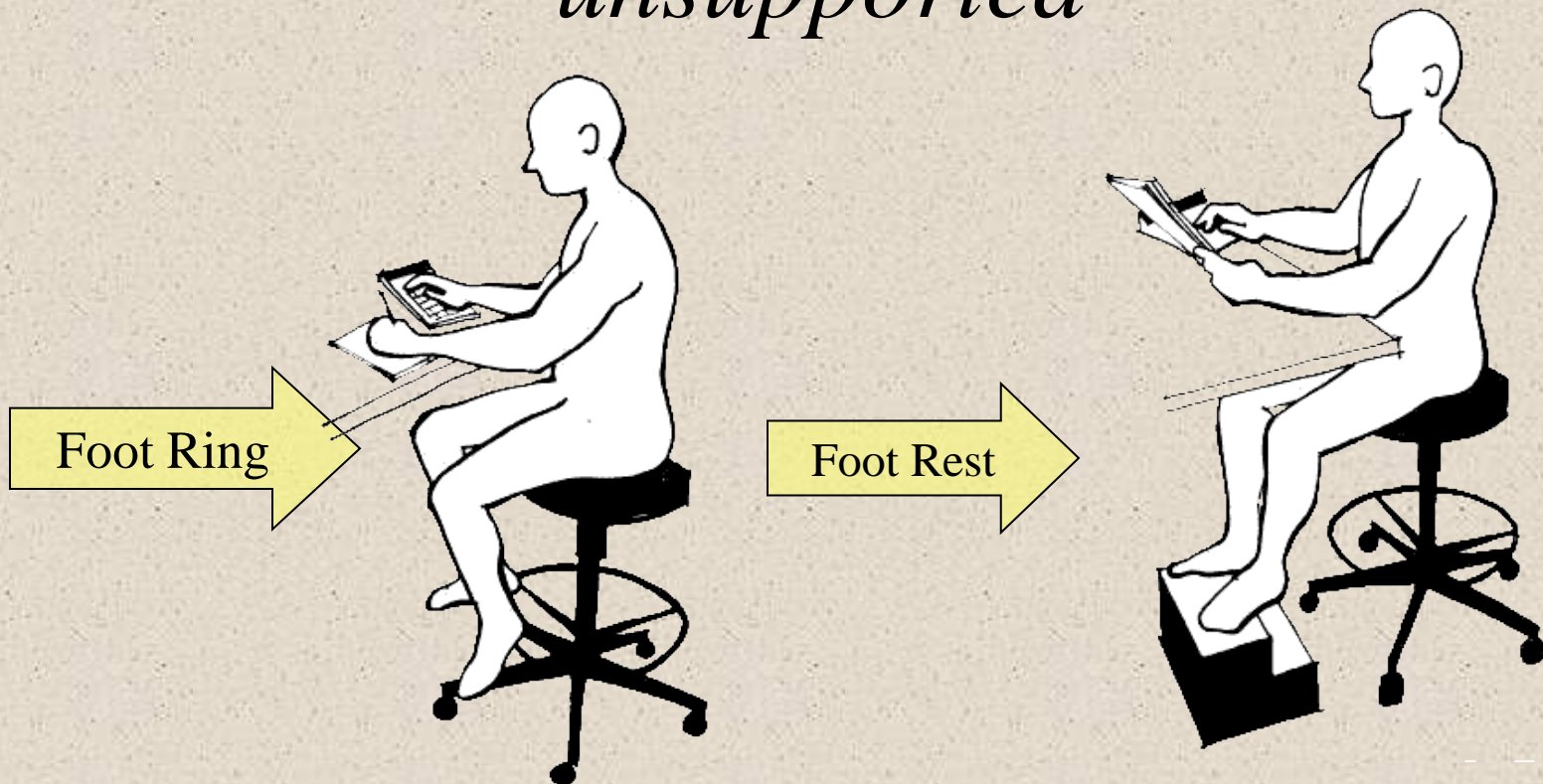
It puts wear and tear on your back.

And, it can cut off blood flow to your legs and put your feet to sleep, which could result in an injury if you were to stumble when getting off the stool to move about.

You need your feet supported!



# Counter Work - Operate safely on a stool *...avoid sitting with your feet unsupported*



Support your feet on the foot ring of the stool.

If your feet don't reach the foot ring, use a tall footrest.



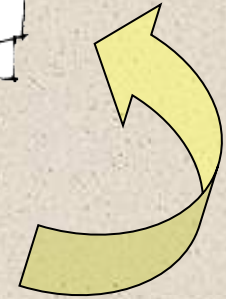
# Counter Work- Operate safely on a stool *...avoid awkward reaches*



Okay!  
...to reach the top  
drawers from a stool.



Avoid!  
...reaching too far or too low.  
This is a common source of accidents  
as the stool can pop out from under you.  
Dismount the stool for reaches that are  
too far or too low.



# Counter Work- Operate safely on a stool ...*avoid forceful movements*

Avoid grasping the counter and pulling yourself around with your hands when on a stool- “walking with your hands.”

These forceful gripping and arm motions can strain the muscle/tendon structures in your hands, arms or back.

Try to arrange tools and equipment closer to your body to avoid having to move your stool.

If this isn't possible, you're much better off standing and moving with your feet than with your hands and arms.



*Walking with you hands- not!*

# Counter Work

*...get some cushioning for your feet*

An anti-fatigue mat (rubber mat) to stand on while you're working at the counter can reduce the stress on your ankle, knee and back joints by as much as 25%.



## **Ergo Fun Fact**

Prominent spine researchers found that a \$10 pair of shock-absorbing cushioned insoles are as effective in reducing joint stress as anti-fatigue mats and offer some advantages:

- less trips, slips and falls
- don't inhibit chair / stool movement
- improve overall balance and movements of the person
- they move with you as you walk around providing support for all activities

# Counter Work

*...wear supportive footwear*

If you must stand at a counter for long periods, maintain a good posture and wear shoes with optimal support...

- *a good arch*
- *ankle high support*
- *soft rubber heels and soles*
- *a cushioned insole or insert*

Forget the fashion statement while on the job!

