

## Creating a Healthy Work Environment: Ergonomic Advice for Our Patients

Craig Liebenson, DC

Goals for this paper:

- What is ergonomics?
- What types of disorders are associated with office tasks?
- The work station checklist.
- Proper lifting and bending advice.
- "Micro-breaks" -- what can I do?

Introduction

The AHCPR low back pain guidelines state that the first stage of care is reassurance. Reassurance involves informing people about the positive natural history of their disorder; letting them know they do not have any serious diseases; motivating them to take an active role in injury prevention, since recurrences are the rule rather than the exception; and offering activity modification advice to reduce further irritation as quickly as possible.

In my book I mention that patients may require advice, manipulation, and/or exercise. Obviously, advice has the potential to be the most cost effective. Rehabilitation specialists along with knowing how to transition patients to active care as early as possible, should appreciate the value of patient education. As Kirkaldy-Willis said, the three Es of patient care are education, exercise, and encouragement!

What Is Ergonomics?

Ergonomics is the study of how people fit in their work environment. Ergonomic improvements don't have to involve expensive office changes. Simple tools combined with appropriate advice is often all that is needed. A foot stool can reduce stress from common activities of daily living like ironing or any desk top activity. Advice about correct trunk posture (maintain the lumbar lordosis or "neutral spine") can improve head/neck alignment and result in a less fatigue when sitting at a desk for prolonged periods of time.

What Types of Disorders Are Associated with Office Tasks?

- Neck/shoulder tension
- Headache
- Tendinitis of the wrist & forearm
- Carpal tunnel syndrome
- Mid back/shoulder blade pain
- Lower back pain
- Sciatica

Millions of Americans are suffering from back and neck pain for which they can't find a specific cause. Most of these cases are due to "repetitive strain" from occupational overuse syndromes. The

human body was not meant to stay in one, constrained position for prolonged periods of time. It requires regular motion and activity to maintain normal circulation and to keep muscles relaxed. The result of prolonged static postural strain is fatigue in the muscles and eventually joint, nerve, or disc injury. The pain may start suddenly or gradually, but the problem was inevitably "brewing" for months, years or even decades!

## The Work Station Checklist

### Chair

- Is your seat height adjustable?
- Are your feet firmly on the floor?
- Are hips at the same level as your knees?
- Is there a good lumbar support?
- Do you have arm rests?

### Desk/Computer

- Is your desk or keyboard at a height where your wrists are not bent?
- are your elbows flexed 90 degrees?
- are your shoulders relaxed, not "shrugged"?
- Is the center of your monitor at nose level?
- Is there glare on your computer screen?
- Do you have a document holder?
- Do you have a headset?

### Proper Lifting & Bending Advice

Repetitive lifting and bending can be dangerous if not performed correctly. The following rules will minimize the likelihood of a problem.

#### Lifting Advice

- Lift with your back straight.
- Avoid bending or twisting while lifting.
- Keep the object as close to your chest as possible.
- Keep things that need to be moved at waist level whenever possible.
- Avoid lifting or bending first thing in the morning or if you have been sitting for a prolonged time.

Besides utilizing good technique, muscle strength and coordination is necessary to avoid injury. In particular, leg strength (such as from practicing squats) is necessary to avoid improper lifting mechanics.

#### Micro-breaks -- What Can I Do?

It is essential to break the cycle of repetitive strain, muscle fatigue, and pain. To do this we should recharge our muscles and take strain off our joints and discs every 20 minutes. Even if just for 10-30 seconds!

#### The Buddha (Bruegger's position)

- Chin tucks
- Shoulder blade squeezes & rolls

- Standing reach upwards
- Take a walk
- Take a deep breath, and let it go!

*Craig Liebenson, DC*  
*Los Angeles, California*

SEPTEMBER 1996