

# Topic of the Week

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WE CARE ABOUT YOUR HEALTH

## Better Ergonomics for Better Health

Presented by: Mark J. Glesener, DC

Ergonomics is the study of the relationship between three things:

1. A worker
2. The work that needs to be done
3. The environment in which the work is accomplished

Your chiropractor encourages you to think about your ergonomic needs and how they impact the health of your body. Poor ergonomics can lead to repetitive strain injuries, lower back pain and headaches.

### How to Implement Ergonomics at Work<sup>1-3</sup>

**Workstation set-up** - When setting up your work area you should consider...

- Amount of time you required to stay in static sitting or standing positions
- Accessibility of important items relative to your position
- Lighting conditions
- Air quality and circulation
- Background noise

Presented by:

Fox Valley Chiropractic, Dr. Glesener, Fox Valley Chiropractic  
1750 East Main Street, Suite 60, St. Charles, IL 60174, (630) 377-8844  
www.drglesener.com,

**Sitting and chair design** - Many jobs require us to sit for several hours per day. Here are some tips to reduce strain:

- Feet should rest flat on the floor. If necessary, use a footrest
- Legs should remain uncrossed
- A small gap should remain between the back of your knees and the front of your seat
- Knees should be at or below the level of your hips
- Backrests should be adjustable to support your lower back and midback
- Armrests should be positioned so your forearms remain parallel to the ground

**Standing and posture** - If your job requires you to stand for long periods, you can minimize stress by adopting these ergonomic strategies:

- Place one foot higher than the other using a foot stool
- Stand on a stable, shock absorbing surface
- Use comfortable footwear that is biomechanically supportive
- Minimize bending or stooping by using work surfaces that are the proper height
- Bend your knees slightly to take some stress off your joints

### Exercise of the Week

#### Abdominal Twists on Exercise Ball

**Difficulty:** Moderate to Advanced

*(Consult your chiropractor before engaging in this or any other exercise.)*

**Start:** Assume reverse bridge position with shoulder blades and head resting on exercise ball. Focus on bringing belly button inward, and holding entire body in a straight line – ankles to ears. Arms are positioned straight to the side, palms facing up.

**Exercise:** Keeping hips elevated, reach one hand to ceiling, creating an upper body twist relative to pelvis. Allow ball to roll slightly underneath you. In ideal finish position, upper body will turn 90° relative to lower body, with only one shoulder touching ball. Pause for 2 counts. Return to starting position, and repeat on opposite side.

Repeat 5-10 times per side.



**Tool design** - If you use hand tools to perform repetitive tasks, the handles of the tools should be designed so you can perform the activities with a relatively straight wrist.

**Bending and lifting** - Know how to use proper lifting techniques...

- “Keep your nose between your toes.” By keeping your nose centered on the body, you can minimize twisting-related injuries, especially disc trauma

- Maintain a neutral, vertical spine when retrieving objects from locations below your waist. By bending the knees instead of the waist, you can use the strength of the large muscles in your legs to reduce strain on your lower back

## Common Workplace Injuries Related to Ergonomics:

**Sprains and strains** - These account for 43% of the 1.3 million injuries and illnesses in private industry that required recuperation away from work.<sup>4</sup> These injuries are commonly caused by lifting, bending or twisting movements. Lower back pain can also be started by poor sitting or standing postures, which cause strain in the muscles supporting these positions.

**Carpal tunnel syndrome** - This is a repetitive strain injury involving the hand and wrist. It's most often caused by repetitive activities using the smaller muscles of the hand and forearm. The symptoms of carpal tunnel syndrome include: pain; numbness or tingling in the first 3 fingers, including the thumb; weakness in the hand that makes holding objects difficult.

**Headaches** - The most common trigger for headaches in the workplace is usually occupational stress associated with excessive workloads, unrealistic expectations for performance and conflict. However, environmental and ergonomic issues can also make you prone to workplace headaches. These factors may include improper lighting, poor sitting or standing posture, glare or eyestrain from using a poor computer screen, toxins in the work environment (air quality) and noise pollution.

According to some experts, one of the main triggers for stress and strain in the workplace is static posture. As a general rule of thumb, do not stay in one position for any longer than 20 minutes without moving around. Take regular stretching breaks to keep your joints and muscles mobile, flexible and functional.

If you experience any of the painful effects of stress and strain, remember to check with the musculoskeletal specialist - your chiropractor!



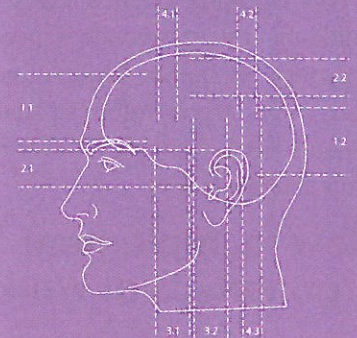
## Quote of the Week

“To wish to be well is a part of becoming well”

- Seneca

## References and Sources:

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3. American Chiropractic Association. Tips to Maintain Good Posture.
4. US Bureau of Labor Statistics Division of Information Services.



## Topic of the Week

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Writer/Editor: David Coyne

Writer: Dr. Christian Guenette, DC

Design: Elena Zhukova

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