A Safe and Healthy Workplace with Office Ergonomics

Do you feel tired or sore before the day ends? Are you having frequent headaches? Do your hands/legs go numb? All of these issues can possibly be solved with office ergonomics. Ergonomics is defined on Merriam-Webster.com as an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely. Office ergonomics specialize on people who have to sit at a desk most of the time.

According to UCLA Ergonomics, the average person working on a computer keys 50,000 to 200,000 keystrokes a day. UCLA Ergonomics states, “Visual discomfort is a common complaint of most computer workers. Eye-strain, headaches and blurred vision are the most common problems of computer workers. Neck, shoulder and back pain can also be related to viewing the computer keyboard and/or screen.” University of Alabama suggests applying office ergonomics which will minimize risk factors, increase productivity, and improve the overall quality of the workplace. According to UCLA, stretching and exercise can help flexibility, strength, and stiffness.

A quick analysis of your work/study area will benefit you. Kearney-Abrams, LLC provides an animated tutorial on how to accomplish the best set-up for a office work area. Here are some recommendations:

**Estimate the distance that your eyes are from your monitor.**
Eighteen to twenty inches is the recommended distance. Too close or too far can cause strain on the neck, back and shoulders.

**How are your wrists positioned?**
Your wrists should be level and in a neutral position. This will reduce the strain on your wrists and forearms.

**What part of the body is in contact with your chair?**
The lower back should be in contact; backs of the knees should not touch the chair. If the back of your knees are touching the chair, it will cause numbness and discomfort to your legs and hips.

**Look at your feet – what are they doing?**
Your feet should be flat on the floor. Adjusting your chair and sitting in your seat without slumping will help correct these discomforts.

**Imagine looking down on yourself as you are working at your desk; where are your ears in relation to your shoulders and your monitor?**
Your shoulders should be aligned with your keyboard and monitor. Your ears should be directly above your shoulders. This will relieve neck, shoulder and back pain.

A healthy stretching curriculum, along with a fifteen minute walking plan, will help keep the body limber. UCLA Ergonomics (http://ergonomics.ucla.edu/exercises.html) has a more detailed exercise for the office worker. Of course this is only recommended after a complete physical from your doctor to have his/her final approval. Personally, it has made a great difference for me!

Remember a visual view of the monitor should be eighteen to twenty inches. Keep your hands level on the keyboard without flexing your wrists. Use a holder for your documents and keep them next to the monitor for perfect alignment of your head and shoulders. Place frequently used items within a comfortable reach without stretching to retrieve them; this should be within fifteen inches. A ninety degree angle of the hips and knees, with your feet in a flat position, will relieve numbness and back strain. Your elbows should be at or below the height of the keyboard, and your work surface should be high enough for your legs to fit comfortably. For more detailed analysis go to the Kearney-Abrams, LLC office ergonomics tutorial at http://www.articulate.com/products/demos/guru/Prometheus/player.html.
Hearing Protection at Work and Home

Here on campus we may not give much thought to our hearing. Do we need to protect our hearing while on campus? Probably not, but how about the maintenance staff? When we see the grass being cut and the gas blowers and trimmers being used, do we realize the noise levels? While at work we are more likely to be exposed to these types of loud noises. Factories are notorious for being noisy. Companies and manufacturers are constantly trying to improve the health and safety conditions in the workplace. We need to focus on our homes and our personal environments. We need to take the necessary precautions needed to protect ourselves.

Did you know that a lawnmower produces about 90dB; gas powered blowers and trimmers can produce 100dB? Have you ever worn ear protection while using a lawnmower or trimmer? Extended exposure to 80dB and more can cause temporary and, yes, even permanent hearing loss.

Most people do not even think twice about their hearing. Do you know someone with a hearing loss? Just ask someone who has a hearing loss how important our hearing is. Not being able to understand an instructor’s lecture, or not being able to hear a conversation in a busy room or at a party—these are just some of the effects of hearing loss. Noise not only affects the hearing; it affects other parts of the body. It is now known that noise can:

- Increase blood pressure
- Have a negative cardiovascular effect such as changing the way the heart beats
- Increase breathing rate
- Disturb digestion
- Cause upset stomach or ulcers
- Make it difficult to sleep, even after noise stops
- Intensify the effects of drugs and alcohol

Here are some of the warning signs of hazardous noise levels:

- You need to raise your voice
- You cannot hear someone two feet away
- Speech around you sounds muffled after leaving a noisy area
- Pain or ringing in your ears after exposure to noise
- You cannot hear someone two feet away
- Speech around you sounds muffled after leaving a noisy area
- Pain or ringing in your ears after exposure to noise

We should, while performing any loud, potentially dangerous noise levels, be wearing some form of hearing protection—either ear plugs or ear muffs that are made to protect our ears from loud noise. Limit the length of time we expose ourselves to loud noises. Extended exposure to loud noises can cause nerve damage to our inner ear.

Do you remember back in biology class in high school? The ear has a “snail like” portion that has thousands of hair-like follicles attached to the inside of the Cochlea. These tiny “hairs” become damaged when exposed to loud noises. This damage is irreversible and is the reason so many people end up with unnecessary hearing loss.

Not all hearing losses are preventable. Sometimes it is a birth defect, or can also be caused by an illness. In the case of my daughter, she was born with a hearing loss. It has been corrected with a Cochlear Implant.

We can absolutely prevent hearing loss that is caused by exposure to loud noise. Let’s protect our hearing; it is more important than you might think. We shouldn’t take our hearing for granted. Just ask a deaf or hard-of-hearing person. It is no fun to not be able to participate in conversations.

Becoming Aware of the Dangers of Long Hair

One day talking to a friend, I was shocked to hear of an industrial accident where a young girl was pulled into the machinery by her hair and gruesomely killed. Before that day I was blissfully unaware of the silent hazard I sport on my head.

Every year thousands of people are hurt or killed due to entanglement in machinery. In 2006 the Bureau of Labor and Statistics reported 58,760 non-fatal injuries due to equipment or object entrapment. According to OSHA records, 993 people were killed in 2006 due to contact with equipment. During that same year 28.3% of reported work related injuries were due to contact with equipment or objects.

Long hair or loose garments can become entangled in any moving part of equipment or machinery. Once caught, the clothing or hair drags the victim into the machinery itself which too often can end in serious injury, permanent disability or death. The entanglement of long hair frequently results in scalping, the total or partial removal of skin, hair and or ears, but can result in death. Victims that survive the entanglement usually require multiple surgeries and can be permanently disfigured. Manufacturing facilities have rules regarding appropriate attire including hair restraint;

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however, most people with long hair simply aren’t vigilant enough.

In August of 2009 a 23 year old Philadelphia man died of a broken neck after becoming entrapped in a box forming machine due to his sporty pony tail. The local coroner referred to it as a tragic industrial accident. However the truth is a simple pony tail or hair tie is not enough to prevent an accident. Hair should be in a tie and a hair net or tucked under a hat to prevent entanglement in moving parts.

The 2008 Farm Fatality Report indicated that nationally there were 31.6 fatalities for every 100,000 agricultural production workers. Unguarded PTO drive shafts on dump trucks and farm equipment were partly to blame. A power take-off, or PTO, revolves at high speeds from 540 to 1000 rotations per minute. During 1991 there were four scalping incidents involving hay balers reported to the Agricultural Health Nurse Program of New York. In two of the incidents the women had their hair safely restrained in buns or bandanas. All four of the tractors the women were driving had guarded PTOs; it was the secondary drive line in which they became entangled.

The National Safety Council urges farmers to stop the PTO when dismounting a tractor and to avoid loose fitting or frayed clothing.

The dangers of entanglement don’t disappear when you leave the farm or factory floor. Everyday harmless activities can hide hidden dangers. Have you heard the urban legend about the girl whose long hair got caught in the “free fall” ride, and it ripped her scalp off? Unfortunately there is some truth behind the tale. In 1981 a seven year old New Jersey girl was scalped on a jungle boat ride when her hair tangled in a moving shaft. A local police sergeant called it “fluke” and claimed that this was one of the “safest rides at the park.” In 1996 in Weymouth, Massachusetts an 8 year old girl celebrating her birthday became entangled when her hair slipped through a one inch gap in the seat of an indoor amusement ride. This was not a wild thrill ride, but a sedate kiddy type ride. The manufacturer of the ride claimed no fault and said the gap should not have been there.

Another seven year old sporting braided hair was scalped on a New Jersey boat ride in 1981, and officials called it a freak accident. In March of 2001 a similar incident happened here in North Carolina to a 7 year old riding on the Skydiver ferris wheel.

Over the last ten years a number of women have been injured or scalped while riding go-carts at family fun parks. This has prompted go-cart manufacturers to issue warnings in the owner’s manuals and businesses to post signs warning patrons. According to information compiled by the U.S. Product Safety Commission, over 12,600 children were treated in emergency rooms for go-cart accidents in 1990. One percent of them were due to entanglements. While go-carts can be dangerous for a number of reasons, hair entanglement should not be one of them. In addition to a helmet, long hair should be pulled back and tightly secured.

Long hair, though perceived as stylish, can be dangerous or deadly if you are unaware of the mechanical hazards present in you surroundings. Use proper caution and fully cover or restrain hair when working with machines. Remember to shut off all vehicles or machinery before attempting to make even minor adjustments. Whether at work or play, long hair and moving machinery parts can pose a serious hazard.

Staying Safe from Violence in the Workplace

I’m sure that everyone reading this has either experienced workplace violence themselves or knows someone who has. It ranges from threats, verbal abuse, and physical assaults to the worst case, homicide. Homicide also is the fourth leading cause of fatalities in the workplace. It’s no fun at all having to work, much less running the risk of getting killed in some sort of workplace violence.

Some jobs have an increased risk of experiencing workplace violence. Some of these include people who handle money with the public, delivery drivers of all kinds, people who work alone or late at night, and of course being a law enforcement officer of any kind.

Now you may be wondering what are some things employers can do to prevent workplace violence from happening. The best protection that an employer can provide is to establish a zero tolerance policy of workplace violence against or by their employees. The employer can also help secure the workplace by installing video surveillance, extra lighting, alarm systems, and minimizing outsider access with visitor badges, and making them sign in and show identification. Employers of cash handling jobs can also provide drop safes to limit the amount of cash on hand.

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Of course the next step is what employees can do to protect themselves and fellow employees while on the job. You can attend personal safety training programs that can help you learn to recognize and avoid potential violence. If your employer doesn't offer this, it never hurts to bring it up to a manager or supervisor. It's also a good idea to avoid traveling alone and into unfamiliar places. Another good idea is to carry as little cash as possible. Keep your supervisors in the loop on any concerns you might have about safety or security issues.

The only protection OSHA has is the general duty clause that requires employers to provide a safe and healthy workplace for all workers covered by the OSH Act. Employers who do not take steps to prevent a violence hazard in the workplace can be cited. If you feel at your work you need more information on this subject, OSHA has several publications to help you with this.

Unfortunately nobody is totally safe from being the victim of workplace violence. Right now there are no specific standards for workplace violence; however, twenty-four states, the Virgin Islands and Puerto Rico have OSHA-approved state programs to help with workplace violence. So if your place of employment doesn't have anything regarding workplace safety, bring up the issue with management or a supervisor. That way you can reduce the risk of a violent incident at work so we can cut down on the two million reported cases of workplace violence each year.