



Real ROI by Using Holistic Ergonomics

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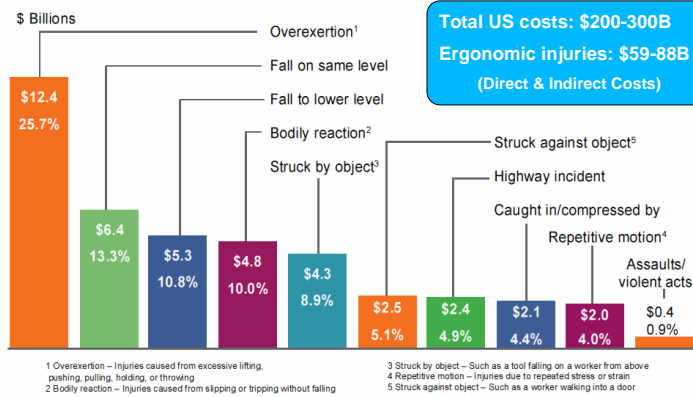
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Workplace injuries

Top 10 Causes of the Most Disabling Workplace Injuries in 2006



Note: The "most disabling work-related injuries and illnesses" consist of those causing an employee to lose six or more workdays.



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Ergonomic Origins:

“the way it was” (and mostly still is)

- Workstation Adjustment (focus)
- Tool Design (active today)
- Stretching (afterthought)



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Office Evolution

- The Office of the 70's
 - Four electrical items
- The Office of the 90's
 - Seven electrical items
- The Office of the New Century
 - Multiple Computers / Peripherals



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Office Evolution: Remote and work-from-home trends and benefits

- **Rapid increase** in the # of remote workers
- Cisco reports telework nets annual company **savings of \$277 million**
- Study identifies positive results of telecommuting

Employee telecommuters in the U.S. increased 39 percent, from 12.4 million in 2006 to 17.2 million in 2008

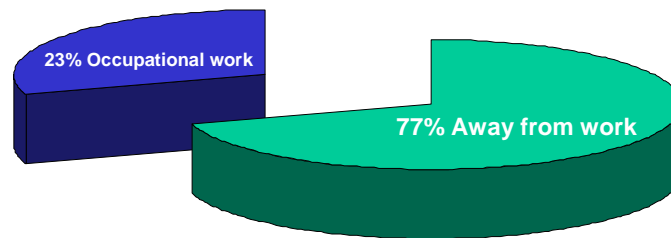
34 million Americans (1/4 of the workforce), work outside of the traditional office setting at least once a month.



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Time “at work”

168 total hrs in week (most people work on average 40-45 hrs per week)



■ Away from work

■ Occupational work



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Away from work...

- Facebook (for example)
 - Fastest growing demographic is those 35++
 - Average user has 130 friends on site
 - 65 million active users through mobile devices
 - Online games (just one – Farmville – 50M active users/day)



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Creating an Effective Holistic Ergonomics Program

- Foundation of Knowledge (especially in past 10 years)
- Self-Directed (as opposed to... let me fix that for you)
- No longer just about occupational work
 - Get the Big Picture
 - Importance of Health & Fitness
 - Actions/Personal Responsibility



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Individual Injury Factors (Knowledge)

- **Gender** - higher prevalence in women
- **Cigarette Smoking** - related to pain in the extremities, including the neck and back
- **Strength** - three times greater risk in weaker subjects
- **Anthropometry** - weight, height, body mass index, and obesity
- **Physical Activity** - a lack of physical activity may increase susceptibility to injury (sedentary lifestyles?)

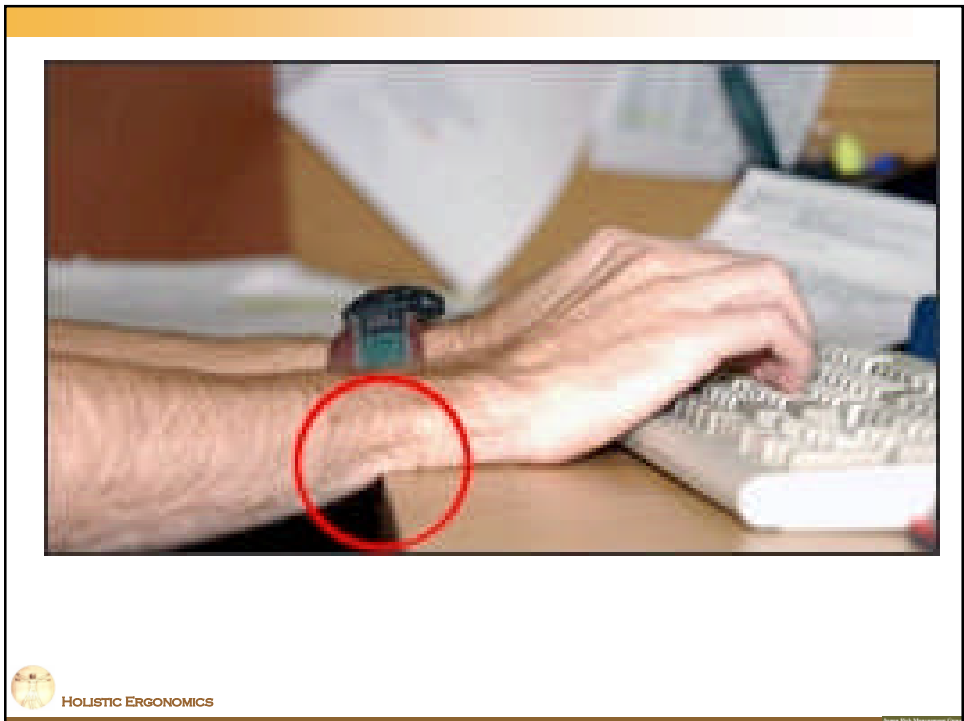


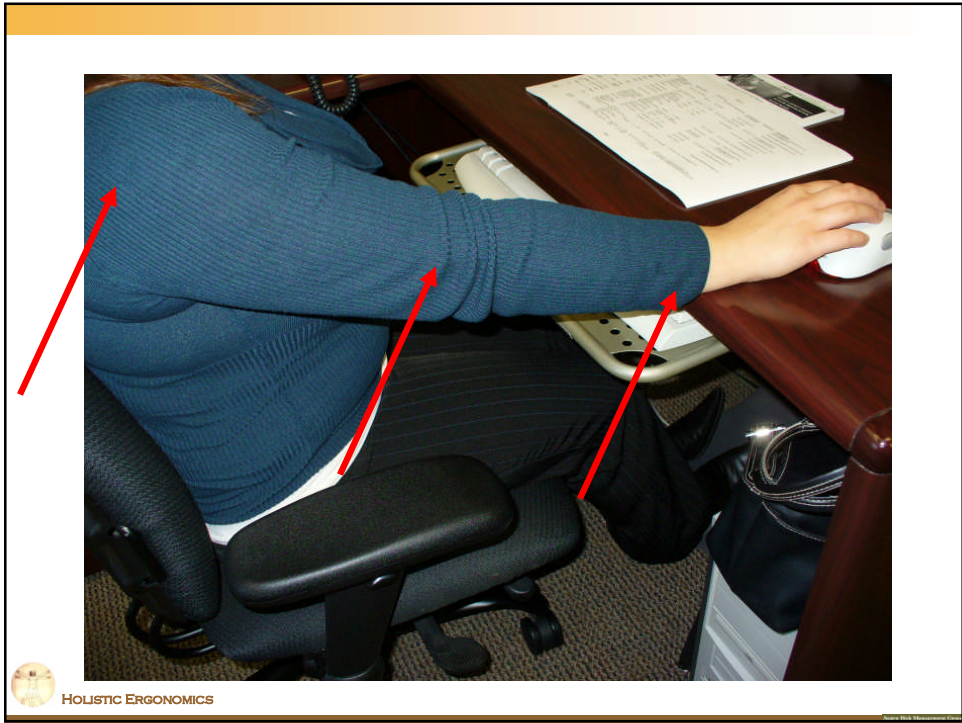
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Observations



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Before



- Photos while working
- Info on posture (*Pain Free Program*)
- Removed keyboard tray
- Rotate mouse
- Short breaks
- Chair (about \$100)
- Keyboard (\$25)
- Headset (\$5)

After



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Sample Occupational Recommendations

- Elevate desk about 4-6 inches
- Place keyboard and mouse on desk and remove keyboard tray
- Replace chair (or seat of chair)
- Continue to adjust your chair - "plant your feet" while seated
- Complete Anthony Carey's book - ***Pain Free Program***
- Continue to use a headset/speakerphone at all times
- Removing chair armrests can net an improvement for many people



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Sample Occupational Recommendations

- Start an effective/balance-based exercise program
- Rotate mouse device between hands every 30 days
- Incorporate regular at-work and off-work exercises
- Incorporate all of these recommendations at your home
- Make adjustments to make things ergonomically work for you
- Use effective devices and tools
- "Hang" the arms (natural position)



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Away-from-work Recommendations

- Practice good "ergonomic" posture
- Physical, mental & nutritional balance
- Warm up before beginning physical activities
- Leave the remote on top of the television, and...
- The body was made to move - motion promotes health



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Away-from-work Recommendations

- Routinely alternate hands for physical tasks
- Stand while talking on the phone at home (and on-the-job)
- Keep those snacks in the kitchen (so when the commercial or pause comes on you have to get up to eat)
- Take hourly stretch breaks while "surfing the net"
- Prepare for sedentary jobs by keeping physically fit



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Return on investment (sample testimonial)

“Thank you, Thank you, Thank you”

“I [and my doctor] requested a desk where I could stand up to work but instead you gave me a cure for my back pain. Seriously, the chronic pain in my hip is gone. It was gone 2 weeks after I read the book and started the stretching for my form and work type. I’m thrilled.

I haven’t missed a day of doing these stretches yet, and some days I have gone through the series twice. I believe I am experiencing other benefits from these stretches too: I no longer get heart burn, my blood pressure has gone down, my neck pain has been reduced dramatically and I am becoming more flexible.

Can you believe it’s only been a month or so? I know I have a long way to go to get my posture as it should be but I also know I am on the right track.”

*Thanks again,
Veronica*



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Return on investment

Nearly 35% cost reduction by incorporating in Holistic Ergonomics

- Measuring ROI
 - Experience modification & WC premium decreases
 - Greater marketability of insurance program
 - Enhanced productivity, health and morale of workforce
 - Compliance with regulatory requirements
 - Safer workplace and improved return-to-work outcomes

Type of Organization	X Mod						% Reduction in X Mod
	Starting Year	X Mod+ 2 yrs	X Mod+ 3 yrs	X Mod+ 4 yrs	X Mod+ 5 yrs	X Mod+ 6 yrs	
Manufacturer	1.18	1.18	0.79	0.77			34.75%
Beverage Distributor	0.95	1.18	1.31	1.50	0.83		12.63%
Water Distributor	1.38	1.02	0.99	0.94	0.96	0.82	40.58%
Investment Firm	1.20	1.00	0.61	0.63	0.60	0.59	50.83%
Average Decrease in X Mod (2-6 years beyond initial consulting)							34.70%



Holistic Ergonomics Summarized

1. Conduct a brief needs assessment
2. Provide education session on the Fundamentals of Ergonomics
3. Provide pertinent handout/materials
4. Ergonomics Self Assessment
5. Provide individual Ergonomic Assessments
6. Follow up / phone and email assistance – ongoing



Resources

- **Holistic Ergonomics**
 - *All materials from presentation, Sample Workstation Set-up, Self Assessment, Cubicle Callisthenics* www.aspenrmg.com/hrthatworks.htm
- **General Ergonomics**
 - *Workplace Safety: A Guide for Small and Midsized Companies* (Ergonomics chapter) (Wiley)
- **For posture in neck and back**
 - *Treat Your Own Neck and Treat Your Own Back* (Optp) by Robin McKenzie. These books are readily available through Amazon.com, other online stores and major bookstores. They are by far the best written books on the subject of improving posture, healing injuries, and eliminating problems because bad posture.
- **Function fitness exercises to help maintain good posture**
 - Anthony Carey's book, *Pain Free Program* (Wiley)... consider incorporating his or similar exercises to help maintain good posture, including the strengthening of your back, shoulders, and neck.
- **Specific exercises to help prevent wrist and upper extremity problems**
 - Kate Montgomery's *End Your Carpal Tunnel Pain Without Surgery* (Sports Touch Publishing) to help prevent wrist and upper extremity problems. Available online (eBook) and at www.sportstouch.com



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For additional
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