

A bi-monthly publication from
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In the shop till you drop... ergo implications of the end of mandatory retirement



New legislation has put an end to mandatory retirement at age 65 in Ontario. In fact, collective agreements which require mandatory retirement will no longer be enforceable. The “boomer” generation is now approaching retirement age, so clearly we can expect the proportion of older workers to increase.

What does this mean for ergonomics? We suggest job changes that will protect a majority of workers, but most of our research is based on a “healthy workforce”. We do know that age plays a role in injury risk and work performance. A recent research review on aging highlighted the following:

- The risk of musculoskeletal disorders increases with age. Older workers have lower physical capacity and less joint mobility. Balance and muscle stability deteriorates with age, increasing the risk of falls in the workplace. Manual dexterity decreases with age. Heat tolerance may be impaired in older workers. (It really is all downhill after 40...)
- When older workers are hurt, they need more time off for recovery.
- During a period of layoffs, companies tend to lose younger, lower seniority workers, increasing the average age of the workforce. Older workers are then required to perform harder jobs.
- Color matching abilities decline, especially for blue and green. Contrast sensitivity also decreases. Peripheral vision is reduced. Depth perception is reduced. Older workers are more sensitive to glare. (A nasty paradox – they need more light but are more susceptible to glare!)
- Older workers have trouble tuning out background noises, resulting in difficulty hearing in loud environments. Older workers have more trouble hearing high frequency noises. (This is why grandpa can hear the sportscaster, but can't hear grandma!)
- Cognitive abilities decline with age. Older workers have more trouble learning new skills, but are fine once the skills are practiced. Older workers have more difficulty attending to multiple tasks at once.
- Reaction times increase with age. (Granddaughter will outperform Grandma at “whack-a-mole” every time!)
- The older you get and the longer you work shifts, the higher your risk of not being able to tolerate shiftwork. Those who can't cope with shiftwork as they age often drop out between ages of 42 and 52. Studies of shiftwork and aging may be biased toward those who are better able to cope.

Benefits of age: It's not all bad!!!

- All those years of accumulated knowledge and experience often result in higher skill levels. Older workers tend to adapt “energy efficient” techniques and other tricks to avoid injury. Older workers, therefore, often make excellent trainers.
- Older workers have more emotional maturity.
- People learn to adapt to the declines associated with aging...they compensate.

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What to do?...cont'd...

What can employers do to help the aging worker?

- Design jobs with older workers in mind. Consider “raising the barre” - accommodate at least 75% of an aging workforce, not just 75% of an “average healthy” workforce.
- Beware when people change to a new job or when the demands of a job change substantially. Workers may be physically capable of performing their previous job, but may not have the physical capacity for a different set of tasks. Offer gradual entry to new jobs.
- Reduce extreme movements by keeping work within optimal reach envelopes. Reduce forces. Reduce repetition through the use of power tools, job rotation, and job enlargement. (But introduce new jobs cautiously!)
- Consider tools designed specifically for people with arthritis and other age-related concerns. Lever door handles, for example, are easier to use than knob handles. Kitchen tools for arthritis sufferers are plentiful!
- Recognise that workers may be hesitant to carry on a conversation in a noisy environment due to trouble hearing. Avoid using high frequency noises as “signals”, since older workers are less sensitive to this range. Reduce background noise where possible.
- Increase lighting levels but avoid increasing glare. Use higher contrast, more illumination, and larger fonts.
- Provide computer glasses for office workers, instead of bifocals. Bifocals create the potential for neck strain as workers struggle to view a screen through the bottom half of the lens.
- Lifting training may have more benefit for older workers. Because older workers tend to have more “energy efficient” techniques, they may also be able to train younger workers to avoid injury.
- When implementing new systems or changes to existing systems, older workers will take longer to learn and adapt, but they will be fine with sufficient practice.
- Encourage workers to maintain a good diet, especially including Vitamins B, C, D, and Beta Carotene, which may help maintain memory.
- Exercise may decrease the risk of osteoporosis. It can also improve fitness, strength, flexibility, and balance, potentially offsetting the effects of aging. Exercise also has psychological benefits, providing more energy and a sense of well being.
- Mental exercises can help maintain cognitive skills – Try our aging puzzle, for example!



Sweatshirt Draw

We held a draw to give a sweatshirt to one of the many people who sent us address updates. Congratulations to Lori Deeley at Mississauga Halton CCAC, who earned a sweatshirt in this month’s draw. If your mailing label is not correct, please fax or email us with a correction.

Ergo Thought:

If you hit every time...the target is too near or too big. Tom Hirshfield



Target practice

As you may already be painfully aware, the Ontario Ministry of Labour (MOL) is targeting “high risk” and “priority” firms. They are working with the WSIB to identify firms with high injury rates and costs. They are generously dishing out orders to complete assessments, implement “programs”, and provide training. They are encouraging firms to work with their Safe Workplace Associations. They are, in fact, doing what was promised in the Minister’s January 2006 press release.

What does this mean for Ontario companies? If your peers have much better injury records than you, you should expect an “intervention”. This will include mandatory “target enforcement visits” from MOL staff. You will be encouraged to contact your Safe Workplace Association (SWA) and the WSIB for help with developing strategies to reduce risk. The SWAs will likely even contact you to offer their help.

Of course you can also approach us for help! We can provide the components of a successful ergonomics program, including an audit of your existing program, help developing goals, objectives, and a written policy, and services including assessments, implementation support, and training.

Colleagues have asked us whether these initiatives have helped our business. Are we getting more work? Yes. (We’re in the yellow pages, after all!) However, in contrast to the companies who call us looking for help to reduce strain/sprain injuries by implementing an ergo program, these targeted companies come to us because they’ve been told they need us, often with orders and deadlines to meet. Most of them come to us with “a project”, rather than a long-term outlook.

We are really good at prioritizing the “need-to-do” from the “nice-to-do”; this strength helps us get “projects”. We pride ourselves in being willing and able to assess risk using current guidelines, to express it in a way the client can digest (as an “index”), and to help the client find ways to address high risk issues without “shutting them down”.

Ergonomists will tell you (and me!) that their job satisfaction comes during implementation, not during assessment. When we do “an assessment”, especially to satisfy an order, the client really only wants to know if the job is “likely to endanger” the worker, and what could be done about it. We come up with ideas, in collaboration with key stakeholders, and we write a report that includes recommendations to address the risk. But we know “stuff” happens after the report is issued. A site ergonomist is usually heavily involved during implementation, running mock-ups, investigating alternatives, obtaining vendor info, and communicating with all key stakeholders. Where we are “on-site ergonomists” (i.e. we visit the client every week), we can drive implementation. But when we are hired to do “an assessment”, clients usually plan to handle implementation on their own. And when things go wrong, people lose faith in ergonomics in general.

Long term, we hope that the MOL targeting initiatives will generate positive attention on ergonomics. We always hope that a “project” client will come back to us with a “program” request. We want to be hired to do what we do best; “inspire, build and support” *programs* that ultimately reduce the risk of musculoskeletal injury through partnership with our clients.

Office Ergo

8:30-5:00 p.m.
Wednesday, March 28
Ayr, Ontario



This one-day session will allow you to identify ergo issues at office work stations and develop cost-effective recommendations to address them.

You will learn to:

- Recognise what ergonomics is and why it is important to you.
- **Adjust your chair** to optimise comfort and productivity.
- **Optimise keyboard, mouse, desk, shelf, document and monitor heights.**
- Identify where **sit/stand work stations** are appropriate, and how to use them.
- Conduct a **“Desk-Top Inventory”** and organise your work space.
- Optimise **work practices**, using work pacing, ambi-dextrous habits, stretch breaks, and “dump the junk” habits.
- Minimize visual concerns, by optimising **viewing distance, lighting, glare, screen parameters, and eye care.**
- Identify when and where **“ergo appliances”**, such as wrist rests, wrist supports, head sets, ergo mice, and laptop accessories are appropriate.
- Design new offices and work stations with consideration of **efficiency, noise, temperature and traffic flow.**
- Apply the “Office Ergo Quick Reference” (**checklist**).

Your course fee includes a detailed course manual, quick reference guide, tape measure, clipboard, lunch and refreshments!

Lifting Tips

8:30-5:00 p.m.
Thursday, April 12
Ayr, Ontario



Our one-day lifting tips course is a train-the-trainer program that will enable participants to lift safely, using 15 different lifting techniques. The course also provides coaching plans that can be customised for your facility, including sample “takeaways” to reinforce the tips.

You will learn to:

- Describe the types of **injuries** associated with manual handling
- Identify workplace and individual factors that may discourage proper lifting techniques
- **Lift safely**, using 15 lifting techniques/tips. The workshop provides practice and feedback for each tip, using realistic case studies
- Identify other **control measures**, including administrative and engineering controls
- **Customise our coaching plans** for each tip, to take back to your facility. These plans can be used by supervisors, JHSC members, or trainers to train workers to apply the 15 lifting tips. Each plan includes key points, a suggested application (practice), and feedback suggestions.
- Customise our template **“takeaways”** to reinforce each lifting tip (posters, handouts, puzzles, etc.)

Your course fee includes a detailed course manual including coaching plans and “takeaways”, lunch and refreshments!

Ergo Design

8:30-5:00 p.m.
Tues -Thurs, April 17-19
Ayr, Ontario



Every engineer and ergo team member needs this course to optimise the ergonomics implementation process!

You will learn to:

- Run **brainstorming** sessions to develop solutions
- **Research** solutions using available resources
- **Mock-up** solutions to determine feasibility and effectiveness
- Choose the best solution using **cost-benefit analysis**
- Apply design **guidelines** to determine the specifications of a solution, including:
 - Carts Hand tool design
 - Clearance Lighting
 - Containers Mechanical assists
 - Controls PPE
 - Displays Reaches
 - Floor surfaces Repair & maintenance
 - Foot pedals Seating
 - Handles Work design
 - Hand work Work flow/conveyors
 - Working heights
- Create a final **report** summarising your recommendations
- Run **product trials** and obtain employee **feedback** on potential solutions
- Effectively implement, document, follow up, and close your projects

Your course fee includes 2½ days of interactive learning, a ½ day of project support, a detailed course manual, design guidelines, lunch and refreshments!

To register, fax this form to 519 632 7469 with your purchase order number, or mail it with a cheque to Taylor'd Ergonomics, Box 1107, Ayr, ON N0B 1E0. Your registration will be **confirmed by fax**. Register early, as space is always limited. We do not accept credit card payment. Cancellations within one week of the workshop will be subject to a \$100 charge, although substitutions are welcome at any time.

Name(s)		Please register me for the: <input type="checkbox"/> Office ergo course on March 28 \$360+gst=\$381.60 (GST# 89765 6377) <input type="checkbox"/> Lifting tips course on April 12 \$360+gst=\$381.60 (GST# 89765 6377) <input type="checkbox"/> Ergo Design course on April 17-19 \$845+gst=\$895.70 (GST# 89765 6377)
Company:		
Phone		
Fax		
Purchase order #		

Toddler at the Table

By Tanya Morose



My son is a very adventurous toddler who is very tall for his age. (He's not your 'average' 17 month-old; he's off the charts for height). He recently decided that he no longer wanted to be strapped into a booster seat to eat; he prefers the 'freedom' of sitting on a regular kitchen chair. He's tall, but not tall enough to be able to sit on the chair and see his food at the same time. And 17 month-olds want to be able to distinguish peas from M&Ms, *before* they touch them! To

fix this issue, he would often stand on the chair to eat. This was an accident waiting to happen. Ergo-mom to the rescue!



The "Hisita underchair booster" promotes itself as the "next step in child seating" (www.hisita.com). The kitchen chair sits on top of the booster and is strapped on. The platform raises the seat height by 7.5 cm (3") and has a 15 cm (6") "step" on all sides of the platform base. When he climbs onto the chair, it doesn't tip over! By raising the chair, we've corrected the "working height" issue, and:

- Owen can sit to eat
- Owen can retrieve food with less awkward shoulder postures

- Owen can see the food on his plate. (No more picking up peas if he doesn't want to eat them!)

An added bonus, the underchair booster has a wider base of support than the chair, so it's less likely to tip if Owen does decide to stand up. The end result is two happy parents, one happy "freedom loving" toddler, and mealtime with one less battle.

AE certificates awarded



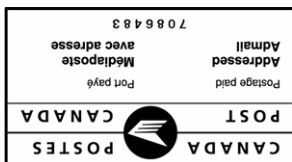
Congrats to **Steve** and **Ryan** on achieving their "Associate Ergonomist" recognition...now they need less than three more years of experience to become "Canadian Certified Professional Ergonomists". An "Associate Ergonomist" has proven that s/he has obtained the educational requirements to practice ergonomics, but s/he is in the process of obtaining the experience component. To become a "CCPE", an Associate Ergonomists need 4 years of full time ergo experience, including a year of mentored experience, or 5 years of unmentored experience. They also need to prove that their work experience has met the objectives for competencies in various aspects of ergonomics. For more info on certification for Canadian Ergonomists, see www.ace-ergocanada.ca

Magic Squares

Fill in the missing words, and see how the answers fit both vertically and horizontally! We've done one for you.

	1	2	3	4
1			A	
2			G	
3	A	G	E	D
4			D	

1. The ability to _____ diminishes with age, particularly with background noise.
2. If you find a sharp _____ on a tool or work station, provide padding to minimise contact pressure.
3. "Like fine wines, we improve when A G E D!"
4. Use high contrast, higher levels of illumination, and larger fonts. Use _____ and yellows for coloured accents on signs and displays, rather than blues and greens which become harder to distinguish with age.



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