



taylor'd

ERGO TIMES



Ergo-technique training: Why, when, and how?



Over the past few months, we've developed and rolled out customized technique training for truck drivers, mixers in the food industry, and stagehands and scenic designers in the theatre business. (Yup, we get around!) We've also led several office ergo seminars, often focusing primarily on how and why to adjust the chair. While training isn't the sole key to resolving MSD hazards, it can complement other ergo initiatives wonderfully. Some tasks require some pretty tricky maneuvering and communication, such as team lifting, as shown at left. We can help to ensure that people understand the technique and have a chance to practice it in a safe environment. Similarly, purchasing expensive office chairs is a

terrible waste of money if no one knows how to use their features.

We admit that we have had a longstanding bias *against* training people how to work so they won't get hurt. We have not found any studies that prove that technique training, ON ITS OWN, prevents injuries. We get that "hair raising on the back of our neck" feeling when clients ask us to come in and train their workers to do something "properly" so they won't get injured. After all, most employees are pretty smart, and they'll find a way to do a job with the least amount of energy and pain. Training them to use a method that requires *more* energy or *more* pain is pretty futile!

In Ontario, **provincially regulated companies** are guided by the Occupational Health and Safety Act and the Ontario Industrial Regulations. "Ergo" is often addressed through interpretation of the statement, "The Employer shall...take every precaution reasonable in the circumstances for the protection of a worker." (Occupational Health & Safety Act Section 25 (2) (h)). The Ontario Industrial Regulations (Section 45) also state that, "Materials, articles or things...shall be lifted, carried or moved in such a way and with such precautions and safeguards, including protective clothing, guards or other precautions as will ensure that the lifting, carrying or moving of the material, articles or things does not endanger the safety of any worker".

Some of our clients, such as banks, telephone systems, and shipping companies, are federally regulated. Section 14 of the Canada Occupational Health and Safety Regulations, part of the Canada Labour Code (see <http://laws-lois.justice.gc.ca/eng/regulations/SOR-86-304>), includes a section on material handling. It requires that:

Our mission:

Inspiring, building, and supporting partnership between your organisation and our innovative team to advance ergonomics excellence.

Our team:

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M.Sc.
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All of our ergonomists are members of:





- An employer should instruct that materials that may be hazardous to handle manually, shall, "where reasonably practicable" not be handled manually.
 - The employer should take into account the frequency and duration of manual lifting in deciding whether objects should be handled manually.
 - Office workers, whose primary tasks did not include manual handling, should not be required to lift or carry objects weighing more than 23 kg.
 - Employers must provide safe lifting training and appropriate work procedures for workers lifting more than 10 kg.
 - Employers must provide written instructions, which are made readily available, and are kept by the employer for two years, for workers lifting more than 45 kg.
- To implement successful technique training, we believe that:

1. **The initiative (training or other intervention) needs to address the MSD hazards in the workplace.** We work with the employees in the workplace to develop examples and case studies for our training. The customization works best when we've completed a full ergo assessment, so we can respond to issues that would best be addressed by changes to the job. It's inappropriate to teach people a technique that isn't practical. No self-respecting ergonomist would stand in front of a class and tell participants that if they simply lift 45 gallon drums to and from the pallet, *with their backs straight and knees bent*, they won't get injured. Issues that require engineering controls need to be addressed appropriately. Similarly, we shouldn't teach office workers to adjust the depth of their seat pans, if that feature is not available on their standard chairs.



2. **The training needs to directly apply to the work that the employees are doing.** We don't teach people to bend with the knees (full squat) to lift parts out of a deep bin, for example. If the job requires lifting people, we don't practice lifting boxes. We find and document very specific examples of how each technique applies to the participants' jobs. For example, if we want to teach people how to "divert the load around the spine", we need to show how this applies in their workplace. Perhaps workers support the bottom of a bag on the thigh while transferring it to or from a pallet, as shown at right. We have over 15 lifting tips in our "repertoire", but we rarely use all 15. Those that don't apply are not taught, which allows us more time to focus on the practical tips.



3. **The training needs to address the limitations of the workplace.** If some techniques apply only to specific conditions, make sure that the employees understand when to

use which tip. For example, in some situations, pulling a load close before lifting it would be a helpful technique. However, if parts are "nested" in cradles or dunnage, this won't work at all, because the part has to be lifted straight up in order to be removed from the packaging! (Photo at right from www.manufacturing.net)



4. **The training absolutely must be "hands on".** We don't call it training if it's just a slide show. (In our language, a slide show would be an "awareness" initiative. Training has to include practice and feedback.) It's a lot more work, but we actually bring props into the training room and have people use them to practice the tips we are teaching. Training should allow people to practice in a safe environment. Many people tell us, at the end of our training, that they had no idea that the "golfer's lift" (shown at right) was so useful!

Similarly, teaching to "butt out" (maintain the low back curve) during a lift requires some sensitivity. It's a very difficult trick to learn, and it does require feedback (and a sense of humour.)



5. **Reinforcement of appropriate techniques, after the training, is important.** We try to include "takeaways" to reinforce the message—posted reminders, or "giveaways" can be used to remind people of what they learned. Supervisors and safety leaders need to be included in the training, so they can reinforce it in the workplace. In fact, our "lifting tips train-the-trainer" course was originally designed to be rolled out by JHSCs. The customization can be done by us, before running the training, or by the JHSC independently, after receiving the training. The course is structured into 15 independent modules, so it can be used as part of your monthly safety talks. Each tip includes a suggested "takeaway". (For info on our customized technique training, please contact Carrie at ctv@taylordergo.com)

Welcome, Baby Eleanor!

Eleanor Elizabeth Barnwell was born 1 week early, on Easter Monday (April 1st), weighing 8 lbs, 2 oz, and measuring 20" long. Annie and family are all doing great and adjusting well. Annie reports that Eleanor is very laid back, and Fiona is very proud of her new role as a "big sister". The Taylor'd Ergo team wishes Annie all the best during her maternity leave!

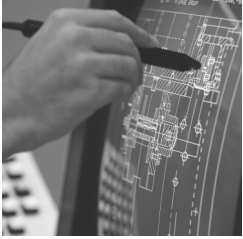


About the newsletter...

Your address: If your mailing address is incorrect, please let us know by emailing (info@taylordergo.com or faxing (519 632 7469) a correction. We'll enter you into a sweatshirt draw. Congrats to Jan Mutter, of Bock North America, who earned a shirt this month.

Electronic: We're happy to send you a hard copy if you prefer to read it on paper, but we also distribute the newsletter electronically. You can also download it from our website at www.taylordergo.com Just let us know your preference!

After you've read it: Please send the newsletter along to a colleague, post it on your safety board, take it home for your family, or leave it in your lunch room. When everyone is done with it, please recycle!



Ergo design reviews

We “work with” the engineers at our clients’ facilities to integrate ergonomics design guidelines into retrofit and launch designs. It isn’t always easy. At one client, me sending an email with the heading “Tuesday” usually puts the Engineering Manager into hiding for the day. (Kidding, really....) However challenging collaboration might be, it’s always worth it in the end. Using ergo at the design phase is simply the most cost-effective way of implementing ergonomics. Design it well in the first place!

Don’t misunderstand—it’s not free, and it’s not simple. We do sometimes ask for ergonomic “upgrades” to the original design, such as height-adjustability, or tilt racks instead of flat racks, but these features are still much cheaper at the design stage than later, at retrofit. Not all ergonomists are trained to apply design guidelines well—reviewing a “flat” layout to evaluate user interfaces requires a good imagination, and excellent communication skills! We have never found one single all-encompassing text book available that teaches ergonomists how to integrate ergonomics into designs. Our ergo design guidelines are the product of an enormous amount of research and ongoing upgrades.

We love it when engineers (and safety professionals, and other ergonomists) come to our “**Ergo Design**” course to learn about these guidelines. The more we include ergonomics at this stage, the fewer people will be hurt down the road! We get great feedback on this course, because it is packed full of useful guidelines and case studies that apply them.

We also love being called in before the equipment arrives. Often, the client wants to wait until the equipment arrives to do the “design review”. At this phase, it’s really too late to call it a design review—the designing part is already done. We can influence some heights and some reaches, if guarding has not yet been installed, but the window of opportunity for real “design” input has already closed. Any changes made at this stage will have a similar cost to a retrofit, except that hopefully they can be made before anyone gets hurt.

And that’s really the bottom line. It’s never too late to do an ergo assessment and make changes to improve a job. It’s hard (but not impossible!) to change an existing job, with workers who are accustomed to the job, and other processes that flow into and out of it. It’s easier to change a new job, before anyone has even done it. It’s *easiest* to change a job that doesn’t even exist yet. Join us for a recently-scheduled “Ergo Design” course on May 28, 2013! (Please see the back page for registration info.)

Free Ergo Speaker

If your professional association is looking for a speaker on an “ergo” topic, please contact Carrie in our office. We would be happy to come out to speak with your colleagues! (Of course, we’re hoping that some of them might be interested in asking some questions about our services after the presentation.) If you are within an hour radius of one of our offices, we can probably come at no charge!



Welcome, Vanesa!

We interviewed our new ergonomist, Vanesa Reider, so we could introduce you to her. Here’s what we learned:

Q. What made you want to be an ergonomist?

A. Growing up, math and physics (the logical sciences) were always my favourite subjects, and I have played and loved sports my whole life.

When I was looking for programs for University and came across occupational biomechanics, I knew this was the field for me. It involves all the sciences I love, and it applies it to the human body. I also really enjoy helping people and this field allows me to help improve people’s lives (at least at work).

Q. What was your most memorable “ergo” experience so far?

A. I really enjoyed the office ergo seminar that I recently facilitated for a client. I was able to help a lot of people, and answer their questions. I also really enjoyed a recent ergonomics assessment that evaluated pulling forces for a trolley. It feels good to know that injuries will be prevented when the recommendations are implemented.

Q. What would be the most interesting job you could think of, to study?

A. I’ve always heard that nursing is one of the most physically demanding jobs so I think I would really like to study what they do. I would also like to study dentists and hair stylists.

Q. What are you most looking forward to, at Taylor’d Ergo?

A. I am looking forward to the variety of jobs that I will be exposed to, and all the employees that I will be able to work with and help. I am looking forward to designing and implementing changes that will create a significant value to organizations. I am also looking forward to working very closely and devotedly with my regular ongoing clients to make their ergo programs as effective as possible.

Vanesa holds an undergraduate and Masters degree, both from York University. She also had some volunteer work experience at the university. She is submitting her Associate Ergonomist application to the CCCPE for the September deadline.

Spring Ergo Planning

Find your way through this puzzle to be reminded of a spring -time ergo initiative that you should be taking care of now.

Call us if you need some help!

U	P	D	R	I	N	K	L	S	N	A	F	N	U	S	O	O	C	T	U	S	I	P
D	D	A	T	O	U	R	O	T	A	Y	L	O	R	D	L	E	E	N	A	L	L	Y
E	G	N	E	Y	E	H	T	S	E	R	G	O	F	F	O	M	V	E	X	A	K	S
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L	R	N	S	I	R	I	C	A	O	L	O	O	A	H	W	E	H	U	M	I	D	A
E	A	A	S	O	N	X	T	O	R	S	S	T	R	O	T	A	T	H	I	D	E	R



Physical Demands Description May 7-8, (and September 4-5), 2013

This two-day session will allow participants, including ergo co-op students, nurses, safety coordinators, and return-to-work coordinators, to collect data and write a concise physical demands description report for the WSIB, employee's doctor, physiotherapist, or for internal company use. [You will learn to:](#)

- Identify a **primary job objective**.
- Discriminate between **essential** and non-essential duties.
- Use tools to measure **force, posture, and repetition**.
- Learn to take **photos** effectively. (Bring a digital camera from your facility, or use one from our class set.)
- Measure and document **workstation** parameters.
- Describe environmental, sensory, and mobility demands.
- Write a **concise physical demands description report** including a summary of the "functional requirements" that matches the WSIB's FAF form.
- Validate** the report, obtaining worker and management verification.

Ergo Design May 28 (and October 2), 2013

During this one-day course, participants, including engineers, safety coordinators, and ergo team members, will learn to incorporate effective ergonomic design features into new workstations, jobs, and layouts, using our detailed design guidelines. [You will learn to:](#)

- Describe and use "**anthropometric** (body size) data".
- Use design guidelines to identify the **specifications** of a solution. In particular, you will learn to apply the guidelines for working **height, reach, and clearance**, through a variety of case studies.
- The course also includes **detailed ergo design guidelines** for the following:

Carts	Design for repair	Hand work	Mechanical assists	Work design
Containers	Displays	Hand tool design	Personal protective equipment	Work flow/conveyors
Controls	Floor surface	Lighting	Seating	

Ergo Hazard Control Toolbox May 30, 2012

Participants in this one-day course will learn to how identify and implement quick fix solutions. **THIS IS THE PERFECT COURSE FOR YOUR JHSC!**

[You will learn to:](#)

- Effectively conduct a **brainstorming** session, to develop creative and practical solutions.
- Use **simple machines** (levers, pulleys, wheels, etc) to solve ergo issues. (We'll inspire you with case studies!)
- Apply **basic ergo design guidelines** for working heights, reaches and clearance
- Conduct a **mock up**.
- Assist with **implementation** through coaching, posters, and other good communication methods.

To register, complete and fax this page 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. ONLINE registration and payment is now also available! Your registration will be **confirmed by fax or email, 1-2 weeks before the course**. Register early, as space is limited. Cancellations within one week of the workshop will be subject to a \$100 charge, although substitutions are welcome at any time.

Name(s): _____ Company: _____

Phone: _____ Fax: _____

e-mail: _____ P.O.# _____

Please register me for the:

- PDD course on May 7-8, \$785+hst
 - Ergo Design course on May 28, \$425+hst
 - MSD Hazard Control course on May 15, \$360+hst
- HST#89765 6377



A bi-monthly publication from
 Taylor'd Ergonomics
 Post Office Box 1107
 1400 Northumberland Street
 Ayr, Ontario N0B 1E0
 phone (519) 632-5103
 fax (519) 632-7469
 web page: www.taylordergo.com
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