



taylor'd ERGO TIMES

How to Use Ergo to Improve Productivity

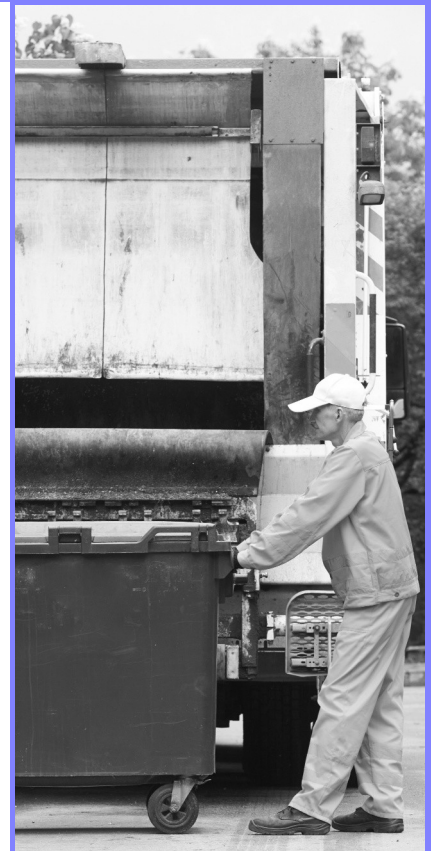
For the past 25 or more years, we've been using ergonomics with the primary goal of improving comfort and safety. If you don't have to bend, your back shouldn't get injured. If grip forces can be minimized, and wrist postures optimized, then the dreaded carpal tunnel syndrome should be averted. But lately we're proving that ergonomics can be so much more! In March, we wrote about the potential to improve quality by using ergonomics. This month, we want to focus on productivity.

We use a hands-on exercise in our training to demonstrate how ergonomics affects productivity. You can use a similar activity in your workplace, too. Take any repetitive task—ideally one that people actually do in your workplace, but any simple task will do. Stapling paper, cutting vegetables, assembling lego houses, or even reviewing reports for errors. (The reason we choose a “repetitive” task is to make proving efficiencies faster...the same process applies to less repetitive jobs like assembling cabinets or completing morning rounds at the hospital, but these exercises are not as practical for a demonstration.) Run through the task once or twice and make sure that you're clear about exactly what constitutes a “successful” outcome. (For example, if you are stapling paper, do the staples need to be installed in a particular way? If your vegetables are chopped too coarsely, would you have to do some “re-work”? Make sure you are fully trained on this “job”.)

Now let's explore what happens when ergonomics is not considered. We don't want to make the job so difficult that you'll hurt yourself in a five minute trial, but try to make it realistic. Load the “incoming” parts from the far side of the table, so you have to reach to get them from the “operator” side. Assume that the table height was designed for someone much taller or shorter than you, so you have to bend or reach a bit. (Adjust your table or chair to make the working height too high or too low.) If you're using a knife, choose a dull one. If you have control over the lighting, make it dim.

Now you're ready for the first part of the experiment. Complete the task for 5 minutes. At the end of 5 minutes, measure your output. In our training we also consider other ergonomic benefits (comfort, quality, job satisfaction), but we're focusing on productivity here, so let's just count up the number of widgets you assembled, and calculate it in “units per minute”. If you chopped 15 carrots (to the expected quality standard), then we'd say your productivity rate was 3 carrots/minute.

Now you can explore what happens when ergonomics gets involved. Use whatever you remember from your ergonomics training to improve the job. Bring parts and tools close,



Our mission:

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



Our team

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Follow us on:



All of our ergonomists are members of:





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- 25-99, \$3.00 each
- 100+, \$2.40 each

Call us for shipping prices. Add your logo—customization available! Credit cards accepted!

Shopping bags

Shopping season is coming soon, and employees will appreciate the ergo shopping tips and professional graphics that are printed on these bags. These generously sized, non-woven bags have a flat bottom for optimum packing efficiency!

Pricing:

- 1-9, \$5.00 each
- 10-24, \$3.60 each
- 25-99, \$3.00 each
- 100+, \$2.40 each



adjust the height of the work (or chair height if you are seated), to make yourself comfortable. Choose a good tool for the job. (Find a sharper knife, for example, and make sure it's an appropriate knife for that task.) If you are seated, adjust your back rest and bring yourself as close as possible to the table, and support your feet. If you are standing, and make sure you have comfortable footwear or a mat to stand on. Repeat the task for 5 minutes. Measure your output, and calculate it in units per minute. Did you perform better? You should have! If not, you can probably at least report that you were more comfortable, or your work quality was better. Now imagine the gains you might have earned, using the resources of an ergonomist to select the *best* height, the *best* tool, the *optimum* reach, etc..

When we do this exercise, people are invariably shocked at how much of an impact ergonomics can have, and that it is *quantifiable*. Historically, ergonomics has been promoted as “the right thing to do”. Projected estimates of injury cost avoidance through ergonomics are based on so many assumptions that most people have a difficult time interpreting them. If the average lost time claim costs \$21,300 in direct costs, and \$85,200 in indirect costs (including re-hiring, re-training, lost productivity, <http://www.labour.gov.on.ca/english/hs/sawo/faqs.php>), how do we know how much we'll save if we implement one change? (In short, we don't.) Productivity improvements are easier to predict, and the cost savings are easier to calculate. Time study methods have been available for a very long time. We can use these to calculate the effect, for example, of reducing the reach by 25 cm, or reducing the weight of an object.

It should be noted that improving productivity does not always mean improved ergonomics, and that's precisely why ergonomists should be involved in design projects. Fatigue, the precursor to injury, is caused by tasks that require too much effort with too little rest. Cranking up the speed of the line (or the expected output in any work environment) without paying attention to the physical demands on the worker will *increase* the risk of injury. An ergonomist can help to identify opportunities to improve physical demands enough to *safely* increase production expectations.

Some companies take the view that ergonomics, viewed from a “comfort” perspective, is “optional”, and they use our services less when the economy is lean. Companies who seek productivity improvements should recognize that ergonomics has even *more* value in a recession. So, if you need to safely increase your company's output, call us for help.



Tools of the Trade

Our cell phones are due for updates, so we've been paying attention to all the new features. One that we're very excited about is the continuous shooting mode on the camera, that allows you to choose the photo that best reflects the scene you were shooting. Every day, we photograph workers while they are moving, and we often miss the exact shot that we wanted. (Our cameras do have a “burst” function, but it doesn't always work well. We can videotape and select a frame, but video resolution is poor.) We try to avoid “posed” shots, because people don't hold a posture the same way as they use it “in motion”. (If you look closely, there's always a bit of a “sag” when someone has been posing for a few seconds.) So, if we are able to hit the shutter roughly when the task will occur, and pick the best shot, our work products will be better, and we'll work more efficiently.



Free Ergo Speaker

If your *professional association* is looking for a speaker on an “ergo” topic, please contact Carrie. We would be happy to come out to speak with groups of human resources professionals, safety professionals, disability managers, production managers, or engineers! If you are within an hour radius of one of our offices, we can probably come at no charge! (We also offer many seminars and workshops for groups of employees—call for pricing.)

SAVE A TREE, and a STAMP!

We've been tracking down newsletter recipients through Linked In. When we find you, we'll ask you if you'd be amenable to receiving a link to the newsletter (by email) instead of hard copy. BONUS: “e-news” readers will also get links to our blog, so, if you enjoy our articles and thoughts, you'll get them more often. If you really want a hard copy newsletter, we'll keep sending them as long as we can! **To convert to e-news, or to update our mailing list if you move or change jobs, send us an email**



Productivity, enhanced

While you might argue that this word search might help you to improve productivity at work (by learning more about this process), we'd still suggest that you take it home to share with your family.

Y	C	Y	A	L	E	D	E	E	R	U	S	A	E	M	P	R	I	C	E	
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T	H	R	O	U	G	H	P	U	T	R	S	T	A	N	D	A	R	D	S	

Instructions:

Find the words listed below in the word search, and then use the remaining letters to discover a some advice to improve your own productivity.

ACTIVITY	ERGONOMIST	METHOD	REDUCE
ASSEMBLE	ESTIMATE	MISTAKE	SAVINGS
ASSESS	EXPECT	MOTIONS	SECONDS
AVOID	EXPLORE	OPTIMISE (with Canadian spelling!)	SPEED
BUSY	FACTORS	OUTCOME	STANDARD
CLOSER	FATIGUE	OUTPUT	STUDY
COMFORT	GUESS	PREDICT	TAYLOR'D
COMMIT	HASTE	PRICE	THROUGHPUT
CYCLE	HUMAN	PROCESS	TOOLS
DELAY	IMPACTS	PROJECT	TRIAL
EFFICIENCY	IMPROVEMENT	PROOF	WEEKS
EFFORT	INCREASE	RATES	WASTE
ER'GO	MEASURE	REACH	WORKPLACE

If you commit to giving more time than you have to spend, you will constantly be _____ from _____
_____ " ~ Elizabeth Grace Saunders

Missed our blog?

Since our last newsletter, we've been talking about:

- History for my future great grandchildren. This blog discussed examples of how our current lives (and technology) might be viewed from the future, and how ergonomics can tap into this perspective for ideas to improve the present.
- How work flow analysis (one of the guidelines in our Ergo Design course) could improve your shopping experience at the local warehouse store
- How our ergo training on best practices for wrenching saved a company money by reducing injury rates (summary of a presentation made at the October 2015 ACE conference).

Let us know (info@taylorergo.com) if you'd like an email reminder whenever we add to our blog.

Alternatively, follow us on twitter @taylorergo. Josie tweets links to the blog when we update it.



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For more details, or to register online, please visit our website www.taylordergo.com.

Please register me for:



Lifting train-the-trainer, November 18

In this one-day session, participants get hands-on practice, learning how and why to lift using 15 proper lifting techniques. They will also learn to effectively coach others to use these tips. Participants get coaching plans with sample "takeaways" to reinforce all 15 messages.
\$370+hst HST#89765 6377



Office Ergo, Wednesday, December 2

This one-day session will allow you to identify MSD hazards at office work stations, and develop cost-effective recommendations to address them. Includes suggestions for using and carrying laptops, introducing sit/stand stations, and more.
\$375+hst HST#89765 6377



Physical Demands Analysis, January 6-7, 2016

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 an objective, concise physical demands analysis report for the WSIB, employee's doctor, physiotherapist, or for internal company use. Participants learn how to measure forces, quantify "repetition", and obtain useful workstation and task photos.
\$785+hst HST#89765 6377

ONLINE registration and payment is now available at www.taylordergo.com. We're also happy to receive your registration "old-fashioned way." Just complete and fax this page to 519 623 9164, with your purchase order number, or mail it with a cheque to Taylor'd Ergonomics, 38 Water Street South, Cambridge, ON N1R 3C5. Your registration will be **confirmed by 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.# _____ (if no PO, please send cheque with registration)



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