

Participatory Ergonomic Change Teams - A Case Study


IAPA

It's About Making A Difference.

Objectives of Session

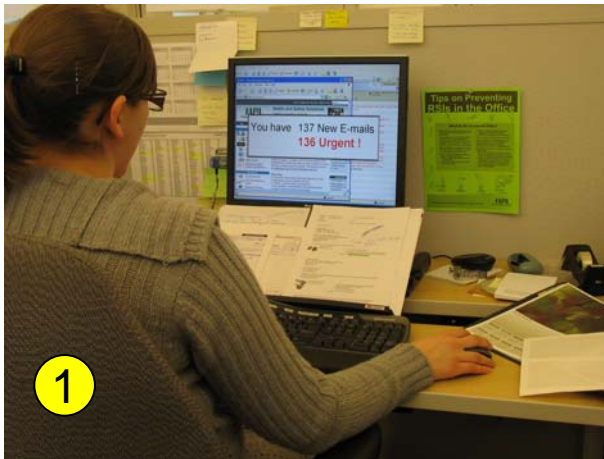
1. Describe participatory ergonomics
2. Discuss key advantages of approach
3. List the steps of participatory ergonomics intervention
4. Learn about a successful case study



A silver television set is mounted on a stand. Below the television, a silver VCR is placed on a shelf. The television screen is black and displays two lines of white text. The background is a solid red color.

What are the hazards?
What are the solutions?

What are the Hazards? Solutions?



Definition: What is Participatory Ergonomics (PE)?

Participatory Ergonomics

- ▶ is an employee-driven approach focused on good design, safety and health
- ▶ involves planning and controlling work activities
- ▶ influences processes and outcomes to achieve goals



Advantages of Using PE Approach

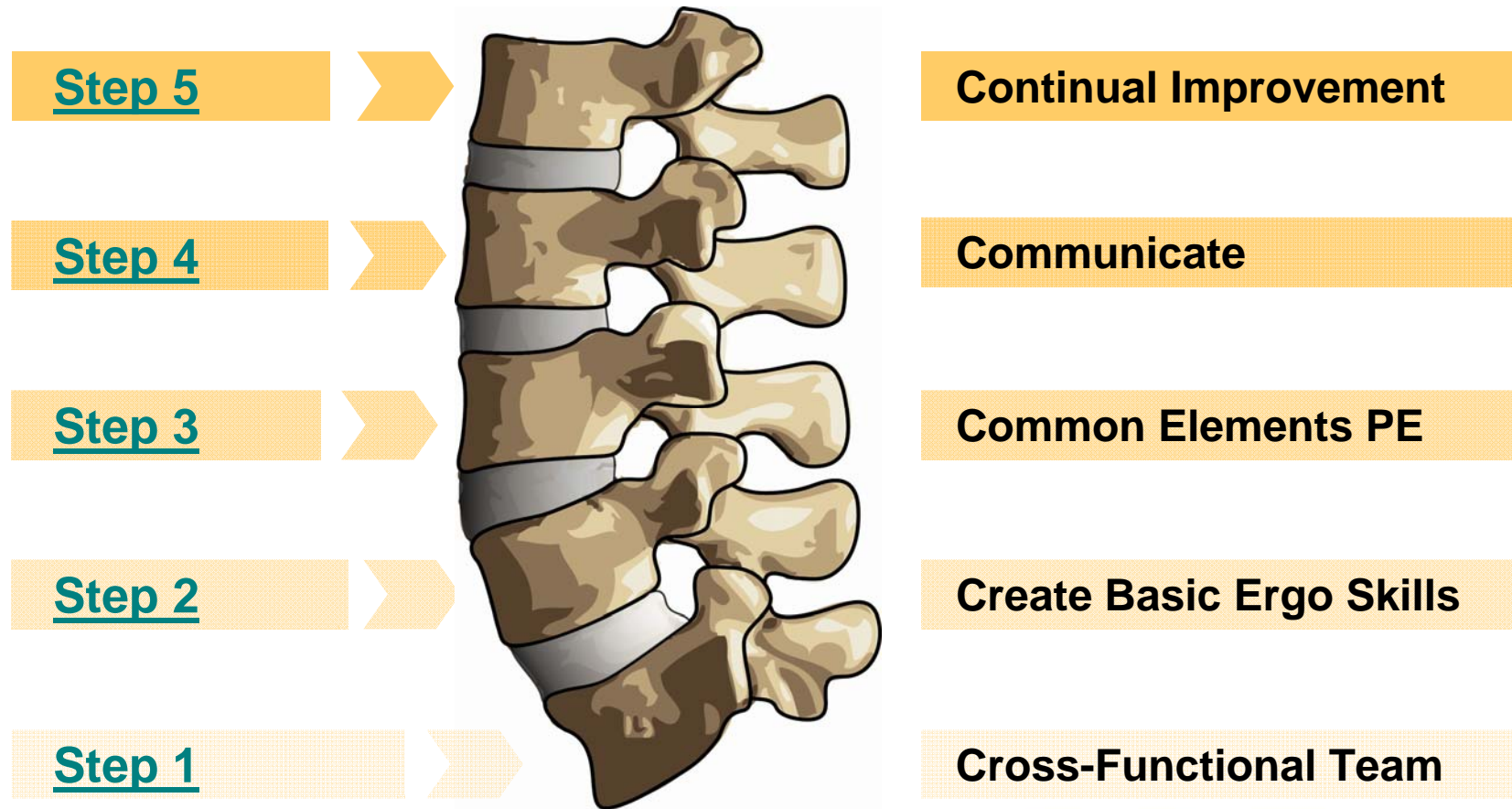
- ▶ Ownership by staff leads to faster learning
- ▶ ↑ job satisfaction
- ▶ ↑ commitment to change
- ▶ Staff/workers become the “experts”
- ▶ Leads to more acceptable solutions
- ▶ Systemic effect to other areas and processes within organization



Challenges of Using a PE Approach

- ▶ Senior management commitment may be difficult to obtain
- ▶ Recruitment of participants
- ▶ Power struggles between worker and manager
- ▶ Organizational structure may limit participation
- ▶ ↑ costs due to time and effort to determine solutions
- ▶ Need tools, techniques, training
- ▶ Must work within the scope
- ▶ Determine when to call for external expertise

Steps of the PE Process – The “5 Cs”



Cross-Functional Team



- ▶ Obtain management support
- ▶ Form a work group with 8-10 people composed of workers and management
- ▶ Right mix of skills including technical, worker knowledge and ergonomist input

Who should you include?



Create Basic Ergonomic Skills



- ▶ Provide initial training on the risk factors associated with MSD injuries
- ▶ Ongoing training of team to include tools to be used to recognize and assess
- ▶ Training should be basic to start with but will become more complex as the problems become more complex



Common Elements of PE Process



1. Define the nature of the workplace ergonomic problem
2. Define goal of project
3. Recognize, assess and control hazards
4. Generate some solutions and prioritize
5. Customize for workplace
6. Implement and follow up

Communicate



Communicate with:

1. workforce – create a team to deal with ergonomics
2. management to be a sponsor throughout the process
3. the team where implementation will occur



Increases chances of success

Continual Improvement



- ▶ Evaluate
- ▶ Acknowledge and celebrate successes
- ▶ Keep evaluating and continually improve your program



PE Experience of the Durham District School Board

Recognizing the Problem

- DDSB 'Last Chance Listed' in 2005
- 75% of our LTI were Slip/Trip/Fall & MSD (50/50)
- Began a "Back to Basics" campaign with the initial focus on Slip/Trip/Fall
- Next Step - MSD



PE Experience of the Durham District School Board

Recognizing the Challenges

- Large multi-site organization – 140 sites
- Large number of employees – 7,000 staff
- Employee groups impacted by MSD to varying degrees
- Internal Ergo expertise lacking
- Our standard approach of establishing JHSC sub-committees to resolve safety issues was faltering (nice way vs. effective way) (definition of committee ice-breaker)
- Other multiple priorities

PE Experience of the Durham District School Board

Making the 'Business Case'

- How do you get senior management interested?
- Is it enough to say that “This is a big push from the MOL”?
- First step is definition of the problem (opportunity)
- Our first step was enlisting the IAPA in 2006 to conduct a Musculoskeletal audit



PE Experience of the Durham District School Board

The Audit

- IAPA Audit – quick and inexpensive
- Allowed the DDSB to separate those items close on the radar screen and those that could be put on a holding pattern
- No big surprises – MSD highly skewed to custodians and educational assistants
- Recommend we establish a “Participatory Ergonomic Change Team”



PE Experience of the Durham District School Board

Establishing the Team

- IAPA presented the audit to the JHSC, discussed participatory ergonomics
- A pilot Ergo Change Team was proposed – scope limited to custodial MSD (with the understanding that if successful we would extend to other employee groups)
- Support for the pilot was solicited and received from the 1. Superintendent of Facilities Services, 2. Superintendent of Business, 3. Superintendent of Employee Relations



PE Experience of the Durham District School Board

The Team

- IAPA Ergonomist (Facilitator)
- Health and Safety Manager
- Custodial Services Manager
- Custodial Supervisor
- Disability Management
Coordinator
- CUPE (Custodian) Member
JHSC
- Last but not least - Custodian



PE Experience of the Durham District School Board

Putting the Team to Work

- Team decided to set aside some of the traditional start up activities – e.g. Organizational ‘stuff’ and training – and get right to work
- Early meetings were a combination of ‘ergo primers’ and operational tasks



PE Experience of the Durham District School Board

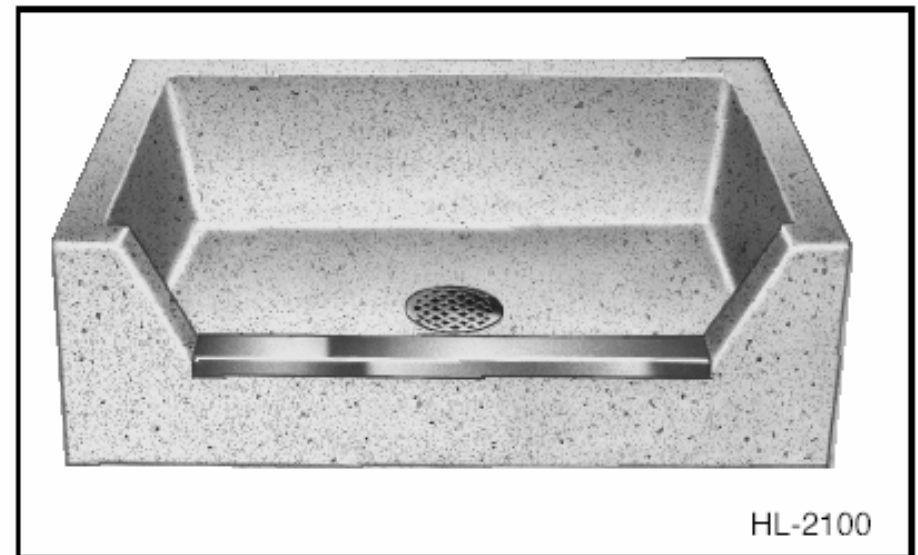
A Clean Sweep

- ▶ 475 Custodial Staff – ½ day program
- ▶ “Durhamized” – summer and winter version
- ▶ Clean Sweep Part 2 – Custodial Supervisors
- ▶ www.worksafebc.com



PE Experience of the Durham District School Board

Slop Sink Replacement Program



PE Experience of the Durham District School Board



Slop Sink Replacement Program

Participatory Ergonomics
Making it Work!
CUST0145710803
Slide #23



PE Experience of the Durham District School Board



Accident Investigations

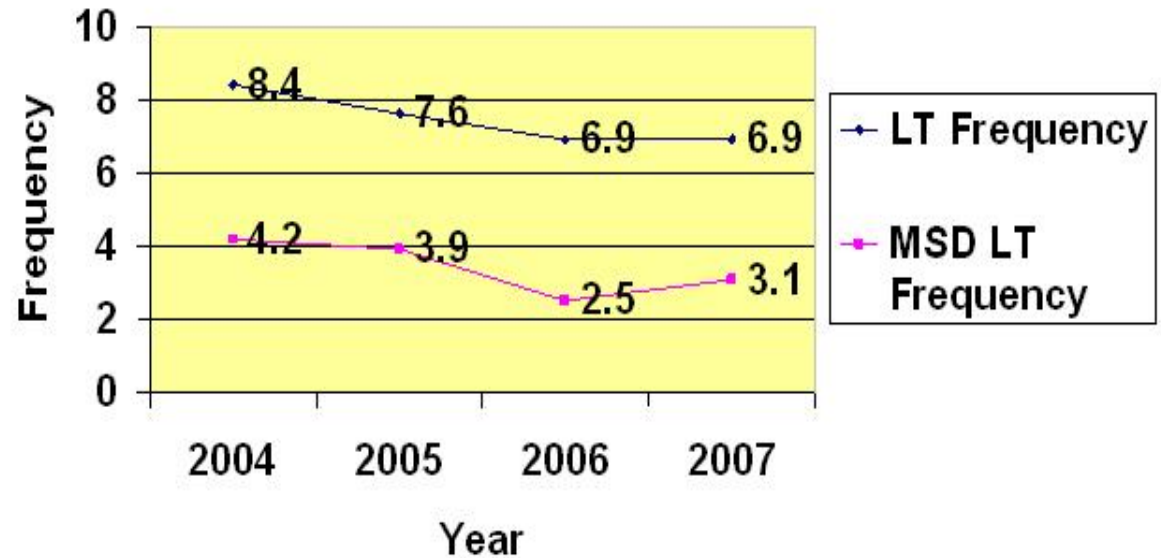
Participatory Ergonomics
Making it Work!
CUST0145710803
Slide #24



PE Experience of the Durham District School Board

Outcomes

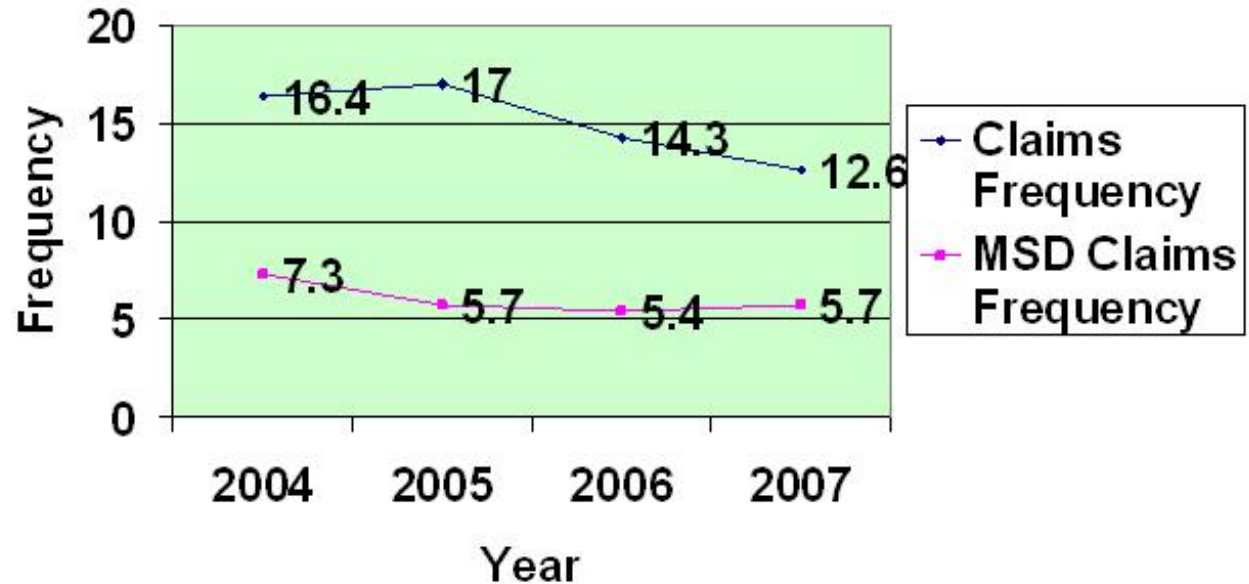
Lost Time Frequency: Custodial



PE Experience of the Durham District School Board

Outcomes

Claims Frequency: Custodial

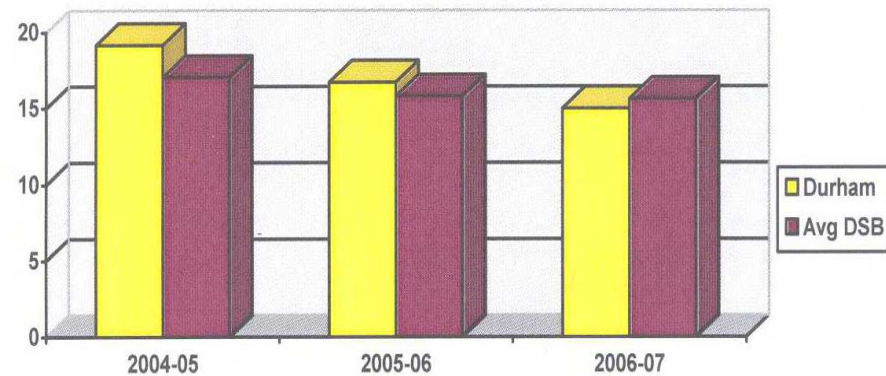


PE Experience of the Durham District School Board

Outcomes

Custodians

Frequency



Year	Frequency	Peer Group Avg. Frequency
2004-05	19.15	17.02
2005-06	16.70	15.77
2006-07	14.98	15.60

PE Experience of the Durham District School Board

Next Steps

- ▶ Reduced reliance on professional Ergonomist
- ▶ Reduced reliance on Safety Dept. – now chaired by Manager of Custodial Services
- ▶ Continue to build internal capacity
- ▶ Develop MSD standard including operation of team
- ▶ Monitor/measure/expand to other employee groups

Is Participatory Ergonomics in Your Future?

- ▶ Common clues to your future
 - Trailing Indicators such as WSIB rates
 - Leading Indicators such as aging workforce
- ▶ Management support
- ▶ Tie to lean manufacturing or quality initiatives

The PE process is your key to Ergonomic Success

How Can IAPA Help?

Professional Assistance

- ▶ IAPA Technical Services
 - www.iapa.ca
 - 1-800-406-4272
(905-614-4272)
- ▶ Ergonomic Specialists

Information, Programs, Services

- ▶ Training
- ▶ Free downloads
- ▶ Other resources

Participatory Ergonomics Change Teams – A Case Study

Participant's Guide
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1. Five Steps to Participatory Ergonomics Program
2. DDSB Case Study: Participatory Ergonomics Change Team
3. MSD Check-Up
4. Notes

Five Steps to a Participative Ergonomics Program

Step 1: Cross Functional Team

Step 2: Create Basic Ergonomic Skills

Step 3: Common Elements of Participative Ergonomics

Step 4: Communicate

Step 5: Continual Improvement

Durham District School Board

Case Study: Participatory Ergonomics Change Team

- ▶ In 2005 The Durham District School Board (DDSB) rolled out ‘Back to Basics’ Safety Program in response to the Ontario Ministry of Labour Last Chance Initiative
- ▶ 75% of DDSB lost time injuries were slips/trips/falls and musculoskeletal disorders (MSD)
- ▶ First step was to conduct a MSD audit utilizing the Industrial Accident Prevention Association (IAPA)
- ▶ Audit identified custodial staff most at risk for MSD and recommend the establishment of a Participatory Ergonomic Change Team
- ▶ With senior management support a pilot team was established with it’s scope limited to custodial MSD
- ▶ The team decided in order to be operational in a short period of time they would receive concurrent training
- ▶ Implemented “A Clean Sweep”, “Clean Sweep Part II”. Slop Sink Replacement Program, accident investigation vs. accident reporting, incorporation of MSD into workplace inspection and others . . .
- ▶ Over 3 years:
 - custodial lost time frequency reduced 18%
 - custodial MSD lost time frequency reduced 26%
 - custodial claims frequency reduced 23%
 - custodial MSD claims frequency reduced 22%



MSD Check-Up for Builders

Pre
Res
M
P

20 Core Questions to Guide Your Prevention Efforts

Yes No Unsure

Build a Foundation for Success		Yes	No	Unsure		
1.	Has management shown support for the MSD prevention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	1
2.	Do you have an MSD prevention procedure or standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	1
3.	Do workers participate in prevention activities in a meaningful way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	
4.	Are people across the organization aware of and support the goals of the MSD prevention program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	13
5.	Have you trained all staff on MSD Prevention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	2, 13
6.	Do you have a good Early and Safe Return to Work (ESRTW) Program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	Not

Recognize MSD Hazards		Yes	No	Unsure		
7.	Are MSD hazards included within your monthly inspections or do you use an MSD Hazard Identification Tool?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	
8.	Have you reviewed injury data for trends and are MSD claims investigated properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	3
9.	Are workers encouraged to report issues early and make suggestions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	

Conduct an MSD Risk Assessment		Yes	No	Unsure		
10.	Have people been trained on how to do an MSD Risk Assessment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	39,
11.	Do you conduct a root cause analysis for MSD risks and injuries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	4

Choose and Implement Hazard Controls		Yes	No	Unsure		
12.	Are engineering controls part of your preferred solution?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	4
13.	Is training on proper work methods, back care, etc., provided and adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	4
14.	Are workers involved in finding solutions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	5
15.	Do you brainstorm a list of options before selecting your controls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	5

Evaluate Success		Yes	No	Unsure		
16.	Do you follow-up on specific controls and make improvements, if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	5
17.	Do you evaluate your prevention process and work to improve it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	
18.	Do you look at leading indicators, or just count MSD claims?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	

Communicate Results and Celebrate Success		Yes	No	Unsure		
19.	Do you keep all staff up-to-date on the prevention progress?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	
20.	Have you celebrated any successes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	⇒	

IAPA's Ergonomics Specialists can assist you with every aspect of your MSD Program (including items 1 - 20 listed above). We offer a no-charge initial consultation to member firms. We can also assist with the implementation of your program through audits, assessments, consultations and many customized training services. The training and consulting services listed are to provide an initial guide to some of our services.

Building an MSD Program

Prevention
source
annual
pages

IAPA Resources

	Information	Product	Services
1 - 18			Ergonomics Program Audit
4, 15			Ergonomics consultation, Tnb, Tpp
15			Tpp, Tmsd, Facilitated Consultation/Training
5 - 18			
3, 19 - 29		Back Care 101 Video	Tmsd, Tc
in scope			Physical Demands Analysis

31	IAPA Ergonomic web downloads	Ergonomics for People at Work	Hazard Specific Certification Training, Tmsd, Tc, Tpp, Tnb
3, 34	Injury Analysis and Firm Profile Charts		Ergonomics Consultation, Tc, Tmsd
33			Health / Discomfort Survey

41, 42	IAPA Ergonomic web downloads	Ergonomics for People at Work	Tpp Tnb, Tc
40, 43	IAPA Ergonomic web downloads		Detailed Ergonomics Assessments, Tnb, Tpp

48 - 53	IAPA web downloads	Ergonomics for People at Work	Facilitated Consultation / Training, Tc, Tpp, Tnb
49, 50	IAPA web downloads	Back Care 101 Video	Tc, Tmsd
50, 51	IAPA web downloads		Facilitated Consultation / Training, Tc, Tpp, Tnb
51 - 53	IAPA web downloads		Facilitated Consultation / Training, Tc, Tpp

53, 56			Ergonomics Consultation, Tpp
56			Ergonomics Program Audit
57			Ergonomics Risk Assessment, Tpp, Tnb

60			
61			

Tpp = Building a MSD Prevention Program (4 half-day modules)
 Tnb = Nuts and Bolts of Implementing an MSD Prevention Program (1 day)
 Tc = customized in-plant training
 Tmsd = customized MSD Awareness training

IAPA, the Trusted Name in Health and Safety

IAPA is a not-for-profit, member-driven organization operating in Ontario since 1917. Representing more than 47,000 member firms and more than 1.5 million Ontario workers, IAPA is one of Canada's leading workplace health and safety organizations.

Products and Services

- Training
- Consulting
- Reference Products
- Events
- Information



DURHAM DISTRICT SCHOOL BOARD CASE STUDY PARTICIPATORY ERGONOMIC CHANGE TEAM



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