

# Occupational Histories in Primary Care

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by

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# My training, experience, & potential conflicts

- MD (1978) + rotating internship (1979)– worked in 1ry care, occupational health & public health in Canada and Central America
- Diploma in Occupational Health, MSc in Design, Measurement and Evaluation in Health Services, FRCP(C) in Occupational Medicine (1990) & Public Health & Preventive Medicine (1992)
- Research with Institute for Work & Health with funding from granting councils, foundations, Workplace Safety & Insurance Board (WSIB) and workplace parties (joint management-labour health & safety committees)
- Salary from university, recent contracts with Liverpool School of Tropical Medicine, Toronto Public Health, Health Canada in the past
- Clinical work with Community Health Centres (MoHLTC funded) and Occupational Health Clinics for Ontario Workers (OHCOW, MofLabour funded)

# Suggested Agenda

- Occupational histories
  - Your experience, areas for enhancement
  - Layered approaches, based on stage in course of exposure-illness/injury
- Clinical contexts
  - Reducing work exposures early, preventing harm & maintaining work
  - Harm with lost time having occurred, promoting accommodation in return to work
  - Delving into historical - legacy exposures, substantiating work relatedness
- Open discussion

# Learning Objectives

With the *goal* of enhancing your occupational histories' validity, effectiveness, and/or efficiency.

Specifically

1. To analyse areas for enhancement and greater comfort in your occupational history taking
2. To distinguish different stages in the course of a clinical condition, with history taking appropriate to that stage
3. To access tools, references and people to assist you in implementing occupational histories

# Occupational histories – your experience

- What is your experience doing occupational histories?
- For which kinds of patients?
- What are key challenges for you in doing them?
- Are there areas you feel more uncertain about your skills? (areas for enhancement)

# Occupational history 1ry care tools

- Ontario College of Family Physicians Exposure assessment tool (CH<sup>2</sup>OPD<sup>2</sup>):
  - Community, Home, Hobby
  - **Occupational**
  - Personal, Diet, Drugs

<https://ocfp.on.ca/docs/public-policy-documents/taking-an-exposure-history.pdf>

- One page primary care questionnaire 12 questions including:
  - (1) employment status, (2) current and usual occupation,
  - (3) past occupations, (4) use of personal protective gear, and
  - (5) past and present occupational exposures and symptoms relating to dermal, respiratory, and ergonomic issues.

[Thompson JN](#), [Brodkin CA](#), [Kyes K](#), [Neighbor W](#), [Evanoff B](#). Use of a questionnaire to improve occupational and environmental history taking in primary care physicians. *J Occup Environ Med* 2000 Dec;42(12):1188-94

# Taking an Occupational History\*

## WHACS

- **W**hat do you do?
- **H**ow do you do it?
- **A**re you concerned about any exposures on or off the job?
- **C**o-workers or others with similar symptoms?
- **S**atisfied with your job?

[Blue AV](#)<sup>1</sup>, [Chessman AW](#), [Gilbert GE](#), [Schuman SH](#), [Mainous AG](#).

Medical students' abilities to take an occupational history: use of the WHACS mnemonic. [J Occup Environ Med](#). 2000 Nov;42(11):1050-3



# College of Family Physicians of Canada

## Occupational histories - 4 levels of intensity

- Basic—knowledge of the patient’s current occupation and industry...
- Screening—individual surveillance for particular exposures
- Diagnostic—investigate an association with a present illness...
- Comprehensive—investigate complex problems in depth, usually in consultation with other occupational health professionals”

**Occupational Medicine Clinical Snippet** August 2016 : *Taking an Occupational History*  
[https://www.cfpc.ca/uploadedFiles/Directories/Committees\\_List/2016-08%20Taking%20an%20Occupational%20History%20\(Final\).pdf](https://www.cfpc.ca/uploadedFiles/Directories/Committees_List/2016-08%20Taking%20an%20Occupational%20History%20(Final).pdf)



# Occupational History-Key components

- Job history, with specific job titles, including concurrent
- Tasks which make up the job
- Exposure inventory for each job including:
  - Biomechanical e.g. lifting 'x' weight
  - Biological e.g. viral infections
  - Chemical e.g. solvents
  - Physical e.g. noise
  - Psychosocial e.g. deadlines
- Exposure controls for each hazard including assists, ventilation, personal protective equipment, etc.

Chan Chung Tsing G, Koh D. Clinical evaluation of occupational disorders. Ch 13 in Guidotti TL (ed). *Global Occupational Health*. Toronto et al: Oxford University Press. 2011 pp 238-264

# Stage in course of exposure-illness/injury

- **Reducing work exposures early** - to protect patient-offspring and potentially co-workers e.g. pregnancy, asthma, yet maintain work
- **Return to work** – to promote work ability and accommodation, primarily for the patient (but potentially for co-workers) e.g. low back pain, neck-shoulder pain
- **Legacy exposures** – to document work-relatedness for compensation purposes, for patient, family, and system change e.g. cancer

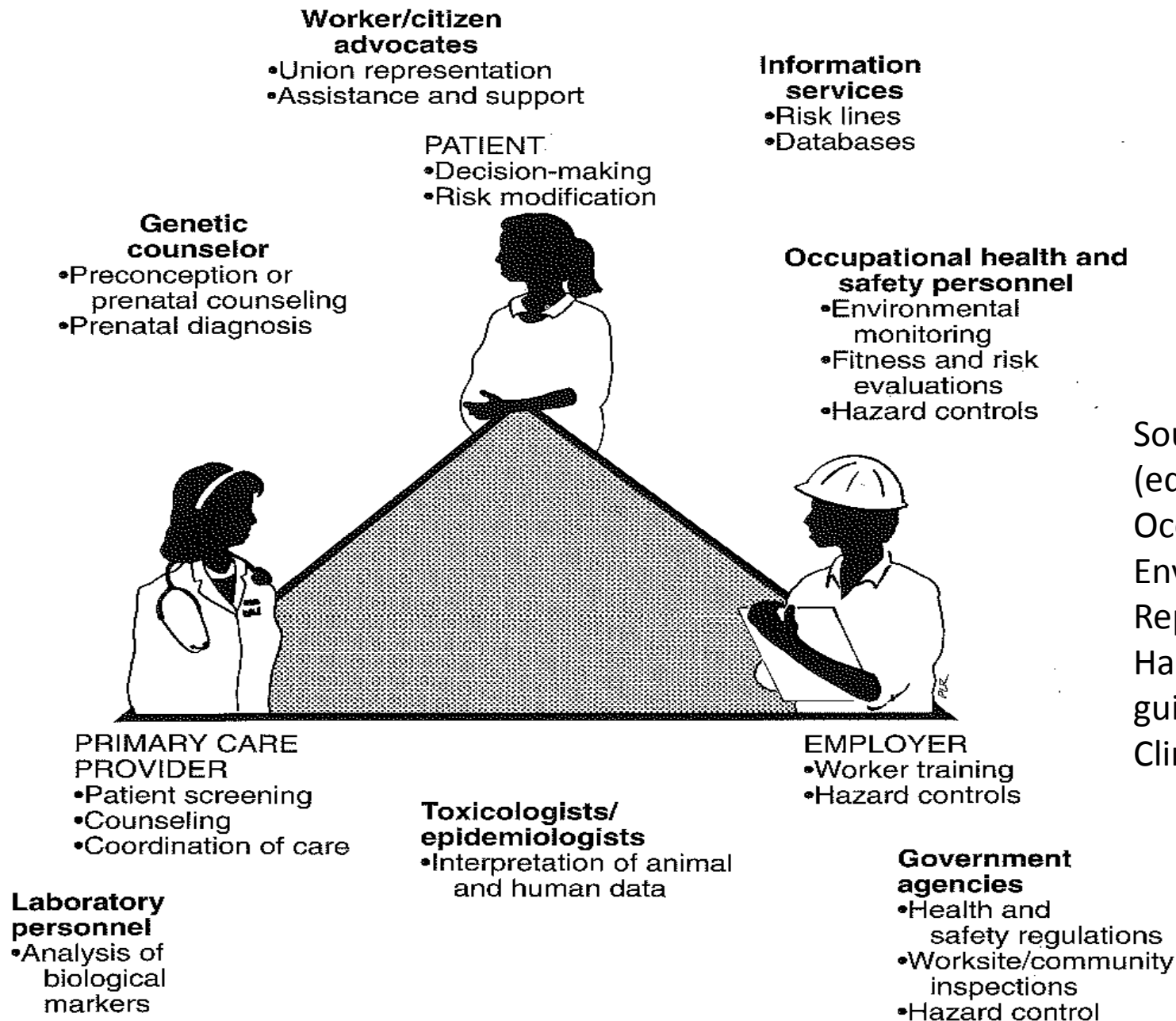
# Reducing work exposures early

- Aim is to protect patient +/- offspring +/- co-workers
- Who among you is engaged in pre-natal and post-natal care?
- ...has counselled a patient +/- her partner around work exposures which can impact reproduction?
- If so at what stage
  - Pre- conception, infertility? Chemical exposures
  - Pregnancy, which trimester? Chemical early, infectious throughout, biomechanical and psychosocial later?
  - Breast feeding period? Chemical throughout...

33 y.o. nurse, G2, P1 (3 yrs), 8 weeks pregnant\*

- Pediatric medical ward, recently working more with chemotherapy patients
- 12 hour rotating shifts, 3-4x/week
- Husband radiology technician same hospital
- Recent outbreak of 5<sup>th</sup> disease on her ward
- Serology shows immunity to rubella but not to human parvovirus B19 infection
- What further would you ask on occupational history?

\* Case from - Paul M. (1995) Reproductive disorders. Ch 27 in Levy B, Wegman DH (eds). Occupational Health. Recognizing and Preventing Work-Related Disease. 3<sup>rd</sup> edn p 559-60. See also MotherRisk HSC on 5<sup>th</sup> disease



Source: Paul M (ed) (1992) Occupational & Environmental Reproductive Hazards. A guide for Clinicians.

**Figure 10.1.** Clinical risk assessment and management often requires a multidisciplinary approach.

# Occupational Hx & Asthma\*

- What is the riskiest part of your job? (Goldstein 2007)
- Any exposures to vapours, gases, fumes, dusts, moulds, particles...? Any new processes? Any material safety data sheets required through Workplace Hazardous Materials Information System (<http://whmis.org/> )
- What are you doing to avoid the risk? E.g. Respiratory protection available & used?
- Do you think your [breathing] problems are related to your work? Are they better or worse when away from work? (Newman 1995 – see next slide)

Goldstein BD. The second question of the occupational history: what is the riskiest part of your job? *J Occup Environ Med.* 2007 Oct;49(10):1060-2

\* Thanks to Christine Oliver – colleague who also contracts with OHCOW

# Newman's initial clinical approach

## 1. The Quick Survey

### Chief Symptom and History of Present Illness

- "What kind of work do you do?"
- "Do you think your health problems are related to your work?"
- "Are your symptoms better or worse when you're at home or at work?"

### Review of Systems

- "Are you now or have you previously been exposed to dusts, fumes, chemicals, radiation, or loud noise?"

## 2. Detailed Questioning Based on Initial Suspicion

### Self-Administered Questionnaire for All Patients (Table 1)

- Chronology of jobs
- Exposure survey

### Review of Exposure, with the Questionnaire as a Guide

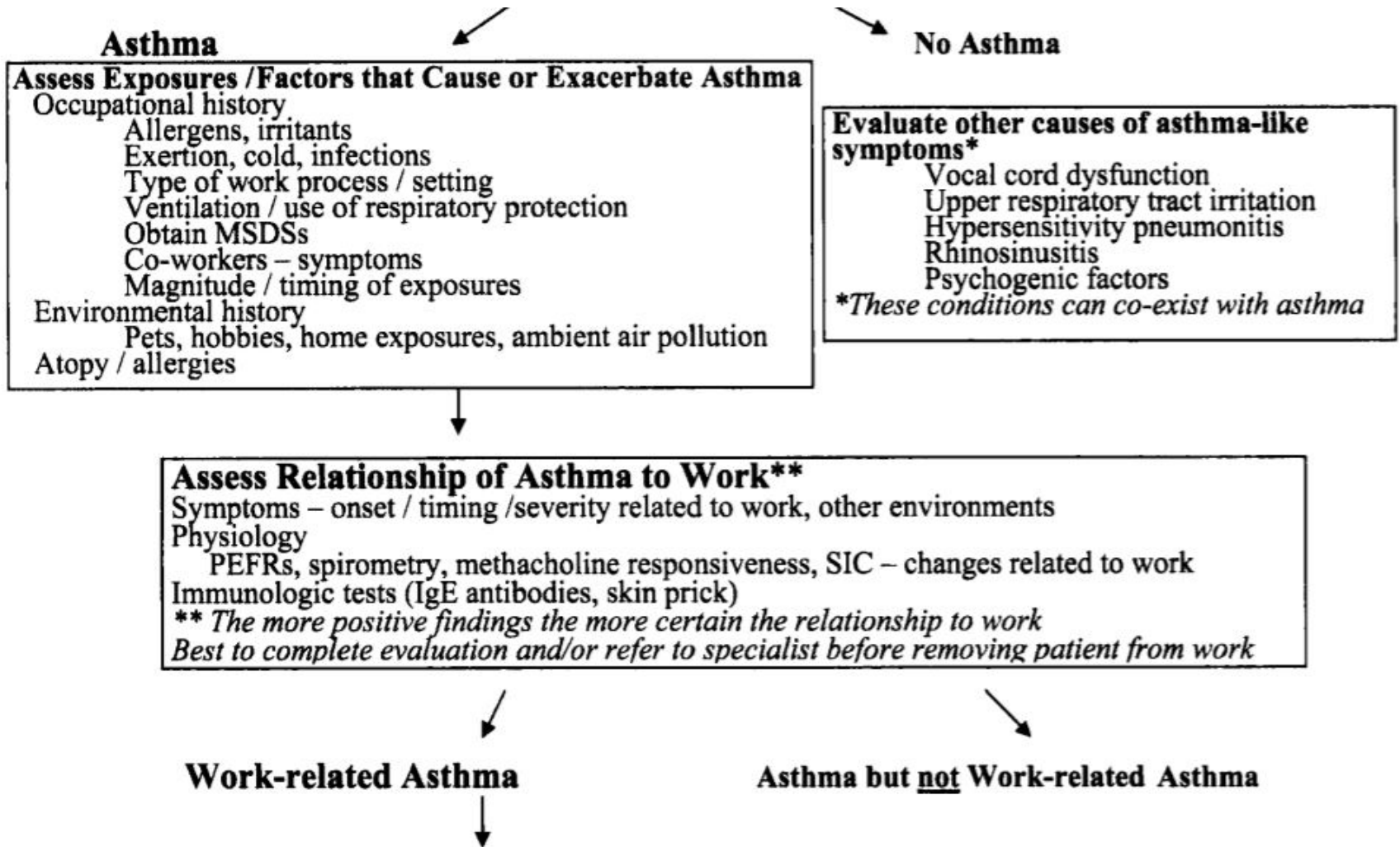
- More about the current job: description of a typical day
- Review of job chronology and associated exposures

### Examination of the Link between Work and the Chief Symptom

- Clinical clues (Table 2)
- Exploration of the temporal link in detail
- "Do others at work have similar problems?"

Figure 1. The Initial Clinical Approach to the Recognition of Illness Caused by Occupational Exposure.

# Diagnosis of Work-Related Asthma



Tarlo SM, Balmes J, Balkissoon R et al. Diagnosis and Management of Work-Related Asthma: ACCP Consensus Statement. *Chest* 2008;134(3):1S-41S



# Comments or Questions?

On role of Occupational Hx in reducing work exposures early, staying at work

# Return to Work

- Aim is to promote patient work ability as part of rehabilitation and workplace accommodation
- Good guidelines available:
  - CMA “...to facilitate the patient's safe and timely return to the most productive employment possible.”  
<http://policybase.cma.ca/dbtw-wpd/Policypdf/PD13-05.pdf>
  - ACOEM  
<http://www.acoem.org/PreventingNeedlessWorkDisability.aspx>
  - Canadian Human Rights Commission [https://www.chrc-ccdp.gc.ca/sites/default/files/gmrw\\_ggrrt\\_en\\_2.pdf](https://www.chrc-ccdp.gc.ca/sites/default/files/gmrw_ggrrt_en_2.pdf)
- Who among you has filled out a “ Functional Abilities Form (FAF) for planning early and safe return to work”?  
(<http://www.wsib.on.ca/cs/groups/public/documents/taticfile/c2li/mdey/~edisp/wsib012233.pdf> )

# FAF snapshot

## E. Abilities and/or Restrictions

### 1. Please indicate **Abilities** that apply. Include additional details in section 3

#### Walking:

- Full abilities
- Up to 100 metres
- 100 - 200 metres
- Other (please specify)

#### Standing:

- Full abilities
- Up to 15 minutes
- 15 - 30 minutes
- Other (please specify)

#### Sitting:

- Full abilities
- Up to 30 minutes
- 30 minutes - 1 hour
- Other (please specify)

#### Lifting from waist to shoulder:

- Full abilities
- Up to 5 kilograms
- 5 - 10 kilograms
- Other (please specify)

#### Stair climbing:

- Full abilities
- Up to 5 steps
- 5 - 10 steps
- Other (please specify)

#### Ladder climbing:

- Full abilities
- 1 - 3 steps
- 4 - 6 steps
- Other (please specify)

### 2. Please indicate **Restrictions** that apply. Include additional details in section 3

Bending/twisting repetitive movement of (please specify)

Work at or above shoulder activity:

Chemical exposure to:

Environmental exposure to: (e.g. heat, cold, noise or scents)

Limited pushing/pulling with:

- Left arm
- Right arm
- Other (please specify)

Operating motorized equipment: (e.g. forklift)

Potential side effects from medications (please specify)  
Do not include names of medications.

# FAF completion – your experience

- For what kinds of conditions?
- How do you usually go about it?
- How much time does it usually take?
- Are there areas in which you are uncertain?
- Does anyone contact you afterwards e.g.
  - an employer representative – HR person?
  - A WSIB employee?

# MSK disorders

## – evidence-based worksheets \*

- Estimating the demands of work tasks according to the risk factors for a body part (back, neck-shoulder, elbow, hand-wrist)
  - Ask a patient to bring in their job description – often lists tasks
  - Particularly useful here are physical +/- psychological demands analyses (PDAs) which larger employers have conducted on jobs
- Approximating a work task analysis
  - Photos of a worker carrying out a task are helpful to see equipment used, positioning, etc. if feasible
  - Alternatively, enactment with narration of the patient doing the tasks in the office

Stock S, Baril R, Dion-Hubert C, et al. (2005). *Work-related musculoskeletal disorders – guide and tools for modified Work*. IRRST – tools for modified work  
<http://www.irsst.qc.ca/media/documents/PubIRSST/OMRT-En.pdf>



## ESTIMATE OF PHYSICAL WORK DEMANDS FOR WORKERS WITH NECK OR SHOULDER PROBLEMS




### 2 Does the work require other **FORCEFUL EXERTION OF THE ARMS** (e. g. pulling, pushing, raising, lowering, turning)?

**no** (go to question 3)




**yes**

Indicate on the diagrams below the minimum and maximum duration and frequency of moderate and intense exertions




**Pulling**

	Light exertion 	Moderate exertion 		Intense exertion 	
		Min.	Max.	Min.	Max.
Duration					
Frequency					




**Pushing**

	Light exertion 	Moderate exertion 		Intense exertion 	
		Min.	Max.	Min.	Max.
Duration					
Frequency					




**Raising up**

	Light exertion 	Moderate exertion 		Intense exertion 	
		Min.	Max.	Min.	Max.
Duration					
Frequency					

**Lowering**

	Light exertion 	Moderate exertion 		Intense exertion 	
		Min.	Max.	Min.	Max.
Duration					
Frequency					

**Turning**

	Light exertion 	Moderate exertion 		Intense exertion 	
		Min.	Max.	Min.	Max.
Duration					
Frequency					

If these exertions present particular difficulties, explain why:

Because of the characteristics of the objects or equipment (e. g. inadequate grps, shape and size, poor state of equipment).

Because of the cramped space and/or the awkward postures the work imposes (e. g. twisting the trunk while pulling).

# Ergonomic modification\*

- Consider work options modified in relation to:
  - Tasks +/- assistance of other co-workers e.g. 2 vs 1 person lift
  - Ergonomic modifications with
    - Positioning training e.g. close to a lift
    - Equipment e.g. stands for boxes to be loaded, lifts
    - Assistive devices e.g. grippers, reach tools
- Consider (distinction thanks to Aaron Thompson):
  - Restrictions – must not do as will worsen prognosis
  - Limitations – cannot do, needs to be accommodated
  - Abilities – important focus to facilitate accommodation

\*Paquette S. Ergonomic accommodation in return to work. Ch 17 pp 307-326, and Van Eerd D, Cole DC, Steenstra IA. Participatory ergonomics for return to work. Ch 16 pp 289-305. Both in Schultz IZ, Gatchel RJ (eds). *Handbook of Return to Work. From Research to Practice*. New York et al: Springer, 2016

# Follow-up visit Reassessments

- Assess extent of implementation of modified work assignment via
  - repeat, focused occupational history, , including psychosocial dimensions, relationships at work
- Assess current status
- Decide wrt:
  - Restrictions – if improving, reduce
  - Limitations – if improving, can adjust accommodations
  - Abilities – if increasing, can widen scope of tasks
  - Both the latter would adjust modified work



# Comments or Questions?

On role of the Occupational History  
in Return to Work & Accommodation

# Legacy exposures

- Aim is to explore - substantiate potential work relatedness for patient or family compensation
- Who among you has had a worker with cancer which he-she thinks is because of their work?
- What kinds of workplaces?
  - Exposures?
  - How long?
  - With what protection (if any)?

# Legacy exposures - Work with others

- Often beyond primary care, but some key history, referrals, diagnoses – can charge for forwarding
- Link with:
  - hygienists who do historical exposure reconstruction (toxicity, frequency, intensity, duration)
  - union/employer representatives with access to historical workplace data,
  - advocates who handle the legal stuff
- Resources include OHCOW
  - Peterborough satellite office, 349a George St. North, Suite 206, K9H 3P9 Tel: 705-749-3444, Fax: 705-745-2463.
  - Part-time (T, W, R) coordinator, Kasia Kerin
  - For General Electric and Ventra Plastics plants, full service
  - For all others, register and on wait list for Ottawa or Toronto clinics

# Open discussion

- Questions?
- Comments?
- What did you learn today that you might use? Or follow up?
  - And for what?
- What were you expecting, which we didn't touch upon? (we might be able to explore it quickly now)
- Anything else?