



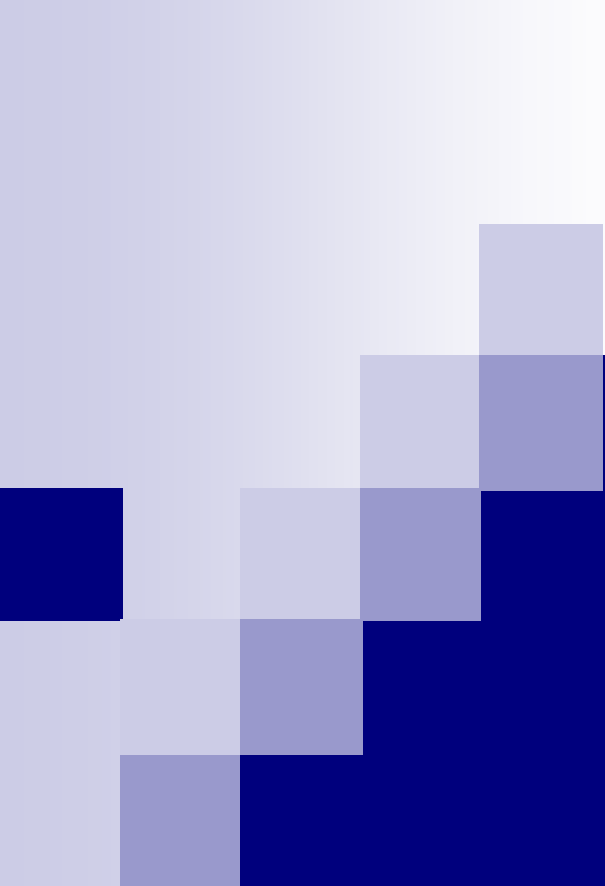
Aging Workers: OHS Solutions

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Aging Workers: OHS Solutions

- Why look at this issue?
- What are characteristics of aging workers?
- Is this an OHS issue?
- What can my workplace do?



How would you define
an “aging” or “older”
worker?

Considerations

- Physical performance peaks at 25
- Peak muscle strength occurs between 20-30
- Approximately 25% decrease in strength from age 30 – 65
- Joint mobility decreases between 20 – 60
 - Incidence of arthritis is highest after 45
- Manual dexterity decreases with age

Why look at this issue?

- Statistics Canada 2006 census data pertaining to the working-age population is becoming increasingly older:
 - 1 out of every 7 Canadians is over 65
 - 12% increase since 2001
 - Number of people between 55 and 64 has increased 28% since 2001
 - In contrast, the population 15 to 24 increased by 5%

Why keep working?

- Like it!
- Financial
- Work on their own terms
- Turn hobbies into contract jobs





Is this an OHS Issue?

Yes ...

...and No...

**A well designed, well organized
workplace benefits everyone**

What are some common characteristics of aging workers?





Typical injuries and illnesses

- Falls

- poor balance, slower reaction times, visual problems, lack of concentration

- Sprain and Strain

- loss of strength, endurance, flexibility

- Effect of accumulation of injuries over the years

Typical injuries and illnesses cont.

■ Cardio-pulmonary

- over-exertion
- loss of heat and cold tolerance
- combinations: e.g., use of PPE (respirator) when working at heights or in confined spaces

■ Health/disease-related

- diabetes, cancer, osteoporosis, coronary artery disease, hypertension

About Injury Types and Rates...

- Some controversy in literature
 - More severe accidents but occur less frequently
 - Longer recovery
- Different types of injuries than younger workers
 - Repetitive strain related / Back injuries
 - “Accumulation” of time and exposure

Solutions

■ Lifting Guidance

- NIOSH lifting equation may not apply equally to 20 yr old vs. 60 year old

■ Learning Styles

- Offer appropriate training / education

■ Good ergonomics

- Job design
- Conduct ergonomic analysis

Remember...

- Be aware of possible interactions between medications, diseases, abilities, chemicals, etc.
 - Vibration and blood circulation
 - Compromised blood circulation and carbon monoxide
 - Lung capacity and respiratory protection
 - CNS depression from solvents and medications



OHS Solutions

1. Physical Changes
2. Productivity
3. Cognitive Skills
4. Investment (hiring, retraining)



OHS Solutions

1. Physical Changes
 - i. Strength and range of movements
 - ii. Posture and balance
 - iii. Sleep regulation
 - iv. Thermoregulation
 - v. Vision
 - vi. Auditory

i) Strength and Motion

- Lose about 15 to 20 % of strength
 - Older workers can do the same tasks but they may be working closer to their “maximum”
 - Loss of flexibility may make “unpredictable” situations more of an issue

i) Strength and Motion

■ Solutions include:

- Mechanical assists for heavy lifting
- Workstation design
 - Layout
 - Proper storage height for materials
- Job hazard analysis
- Job design

ii) Posture and Balance

- More difficult to maintain good posture and balance
 - Work that requires precise adjustments, heavy lifting, or those done on a slippery or unstable surface will be affected more
 - Unexpected bumps or shocks

ii) Posture and Balance

■ Solutions:

- Mechanical assists for lifting
- Appropriate floor surfaces
- Hand rails / grips
- Ensure there is enough room between machinery to facilitate repairs, lifts, job tasks
- Good footwear

iii) Sleep Regulation

- Affects both length and quality
- Disruptions are more noticeable
- More affected by light and noise



iii) Sleep Regulation

- Solutions:
 - More time between extended shifts
 - Awareness of issue & effects of fatigue
- Work spaces should not be too warm or dimly lit
- Offer good food choices
- Keep tasks interesting



iv) Thermoregulation

- Less able to maintain internal temperature
- Less able to adjust to changes
 - May be more affected by heavy manual labour (overheated more quickly)

iv) Thermoregulation

- Solutions:
 - “Good work practices” for extreme temps
 - Awareness & education
- Change pace / job tasks on hot days
- Know the signs of heat exhaustion, frost bite / hypothermia, etc.

v) Vision

- Certain distances
- Also:
 - peripheral visual field,
 - visual acuity,
 - depth perception,
 - resistance to glare,
 - light transmission
- Other changes more obvious when combined with poor lighting or glare

v) Vision

- Solutions
 - Reading vs. “Computer” glasses
 - Need appropriate lighting
 - Task vs. ambient
 - Speed and accuracy
 - Computer screen
 - Format and layout of documents
 - Less flash ads, more bold text

v) Vision

■ Solutions

- Reading vs. “Computer” glasses
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vi) Auditory

- Unable to hear higher frequencies
- Difficult to pick out one voice or sound in a noisy environment
 - Can affect how verbal instructions are heard

vi) Auditory

■ Solutions

- Reduce noise, especially background “hums”
- Written instructions
- Telephones with adjustable volumes for ringer and handset/speaker
- Smaller & round tables for meetings
- Regular screening / auditory testing
- Soundproofing

2. Productivity

- Studies have not shown a consistent relationship between age and productivity
 - Main reasons for poor performance are:
 - Lack of recognition
 - High job stress
 - Lack of support
 - May work slower or make decisions “less quickly” ... but work tends to be more accurate and decisions more “correct”

2. Productivity

- Solutions:
 - Good work organization practices
 - Management strategies (e.g, pace of work, stress)
 - Awareness and education



3. Cognitive Skills

- Learn differently
 - Based on what they already know
 - Past experience with training and education
- Some studies report that they may learn slower (??) but show no difference in performance or accuracy once material is learned

3. Cognitive Skills

- “Fluid intelligence” declines
 - inductive reasoning, selective attention, “dual task activities” and information processing.
- “Crystallized” intelligence, verbal tasks and vocabulary remains the same or improves.

3. Cognitive Skills

■ Solutions

- Provide “context” for information
- Reduce multi-tasking activities
- Minimize distractions



3. Cognitive Skills, con't.

- Need for more practice or classroom training for new situations
- Procedures are short, and written actively and clearly
- Group equipment or tasks that are associated with similar functions

4. Investment

- Aging Workers tend to have
 - Lower turnover
 - Emotional maturity
 - Workplace loyalty
- May need to approach things differently including training and job design
- Older workers perform just as well, may just need additional practice

4. Investment

- Older workers bring...
 - Experience and knowledge of an organization
 - Less need for supervision
 - A high level of commitment, dedication and energy
 - Organizational savvy and an understanding of workplace culture
 - Can be mentors for younger workers

4. Investment

- Value beyond maturity and experience
 - The ability to mentor other employees, which often results in higher retention and job satisfaction for all concerned
 - Increased flexibility to meet business needs, including part-time and contract work.



4. Investment

■ Solutions:

- Flex – time, reduced hours
- Part time work
- Phased-in retirement



4 Key Actions – Regardless of Age

1. Understand the aging process, what is required and what can be done
2. Appropriate training
3. Commitment to preventing accidents and ill health
4. Assess potential dangers and take action to prevent them



What do you need??

- Well designed workplace
- Workstation and job tasks that match the worker – regardless of age
- Planning process very important as well as persistent implementation



How to get what you need!

1. Holistic – address well-being
2. Workplace based
3. Task based
4. Organizational bases

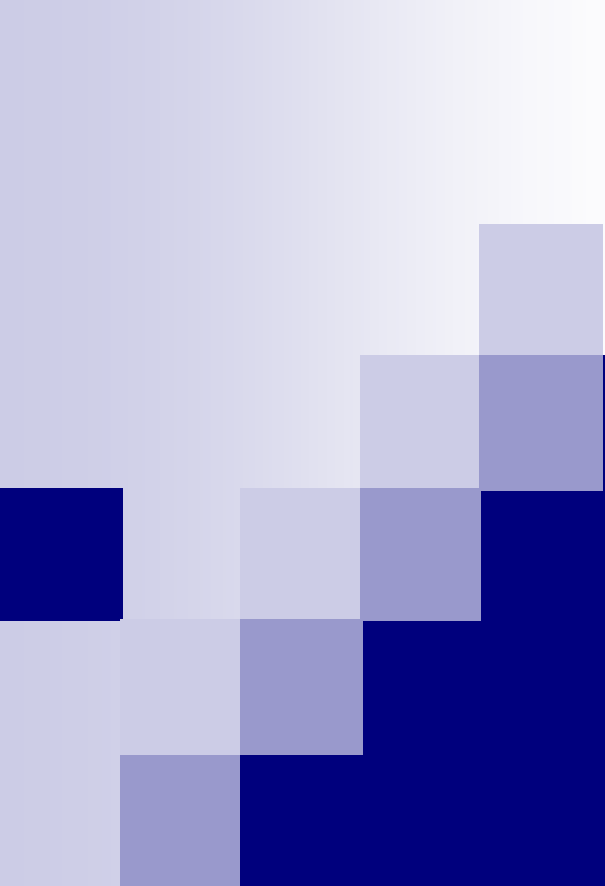


Workplace Health Program

- Focus on whole environment
 - Safety, work organization, personal
- Successful programs work when integrated
 - Benefits for all employees
 - If there is a need, tailor the programs for specific audiences

Be committed to protecting the entire workforce

- Assess the health and safety risks, and get feedback from the workers
 - Think about how the task is done (e.g., movement and handling of loads)
- Match the person to the job and not the job to the person
- Avoid negative language and discrimination
- Ergonomic planning is low cost solution with big benefits



**Key is to know the
employee and
their job**

**Age is a poor predictor of
ability**



Any Questions?

Thank you!

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