

Creating the Age Friendly Workplace!

Presented by

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Consulting, Inc.
Reducing Injuries and Improving
Productivity in a Single Bound!

Stretch Breaks!® Program





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woman-
owned
business

We're an ergonomics consulting firm with a wellness edge that makes businesses healthier by simultaneously reducing injury risks and improving productivity at work!

We are a group of amazing humans passionate about improving the lives of people and helping businesses thrive!

Assess. Educate.

Who Is Older & Why Does It Matter?

Who is “Older” @ Work?

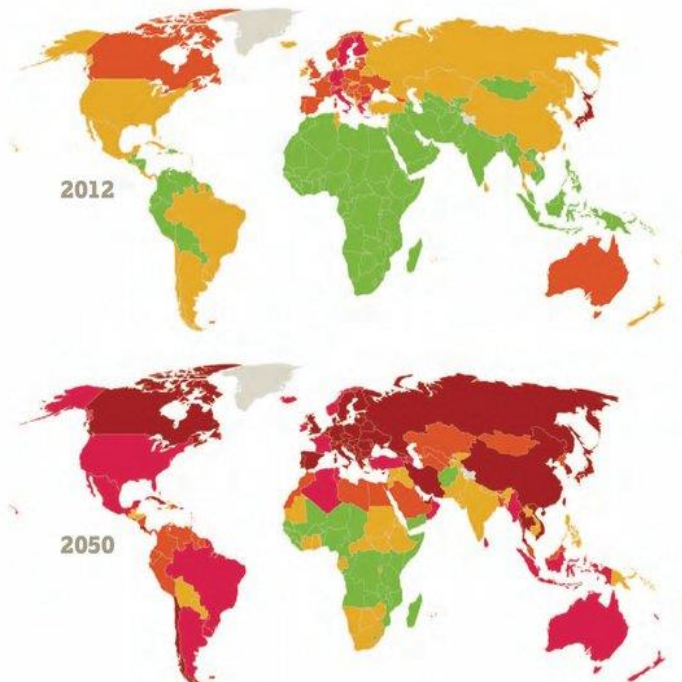
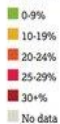
- Aging effects on physical work > 40
- Age Discrimination in Employment Act > 40
- AARP > 50
- Older workers and Chronic illness age groups: 55 – 64 & 65+
- “Seniors” > 65

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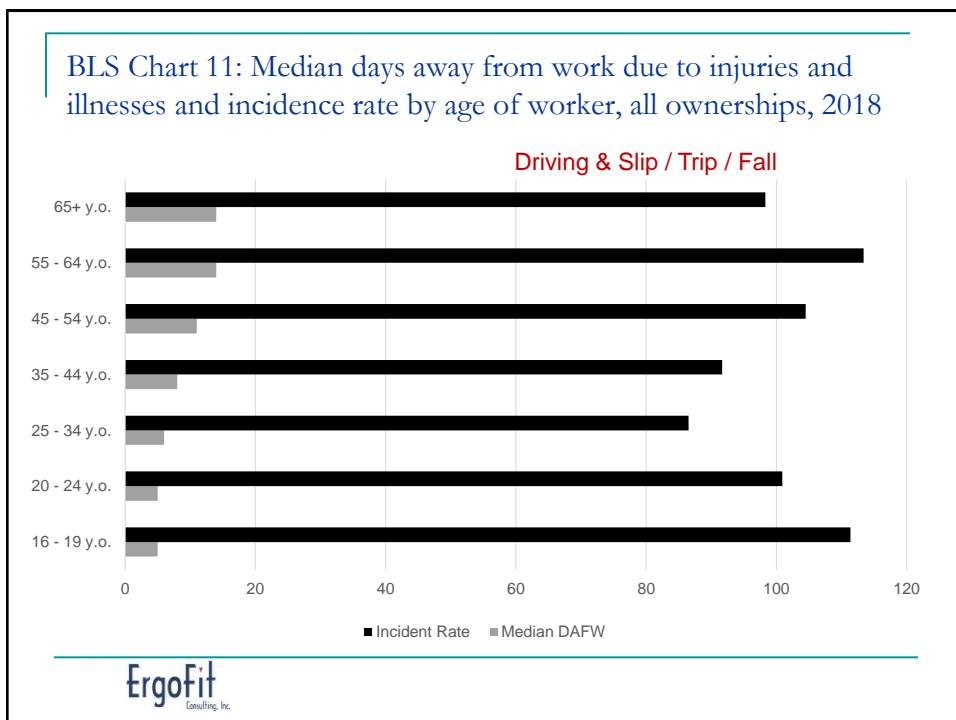
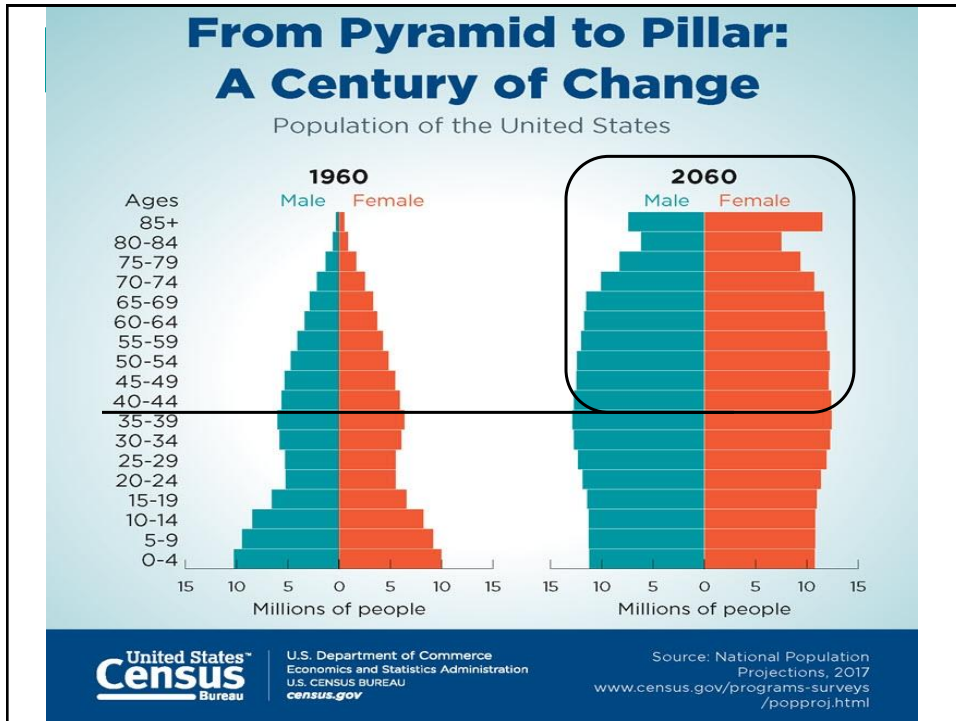
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Figure 1: Proportion of population aged 60-plus in 2012 and 2050

The proportion of the world's older population will rise dramatically over the next decades.



Source: UNDESA Population Division, Population Ageing and Development 2012, Wall Chart, 2012
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations



Are U.S. Employers Ready? 2016 SHRM - AARP survey

- 35% short-term impacts
- 17% long-term impacts
- Most no process to assess >1-2 yrs
- Majority no active recruitment



"What we are looking for is somebody about twenty five with forty years' experience."

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Insurance Journal: *Why Businesses Need to Plan for Aging Workforce*.
[Mark Miller](#) | June 21, 2018

Consequences of Ignoring Aging Planning

- Flight
- Lost knowledge
- Qualified candidates
- Increased claims severity and costs
- Legal trouble – age discrimination (AARP)



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Benefits of Older Workers (50+)

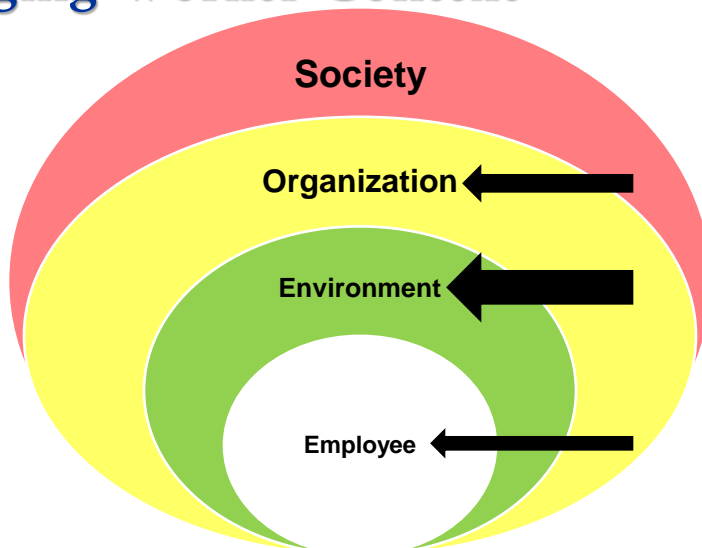
- More engaged: 65% vs. 58-60%
- Reduced turnover: 29% compared to 49%
- Solid experience in job/ industry
- Professionalism
- Work ethic
- Commitment to quality
- Dependable in a crisis
- Rarely tardy; low absenteeism

“The incremental costs of 50+ workers may be far outweighed by the value that they add.”

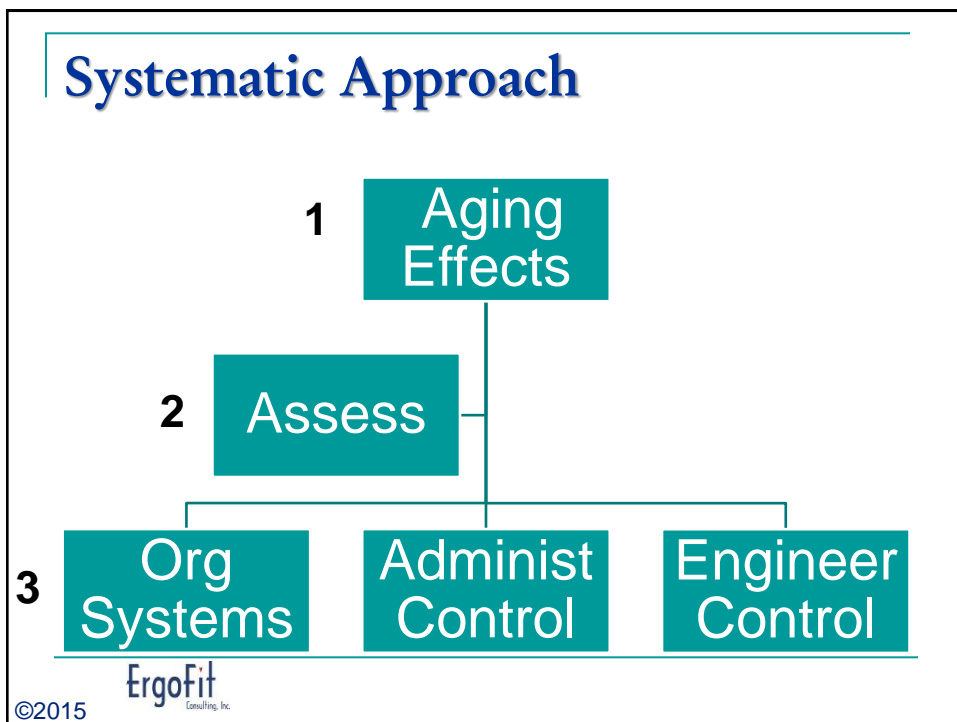
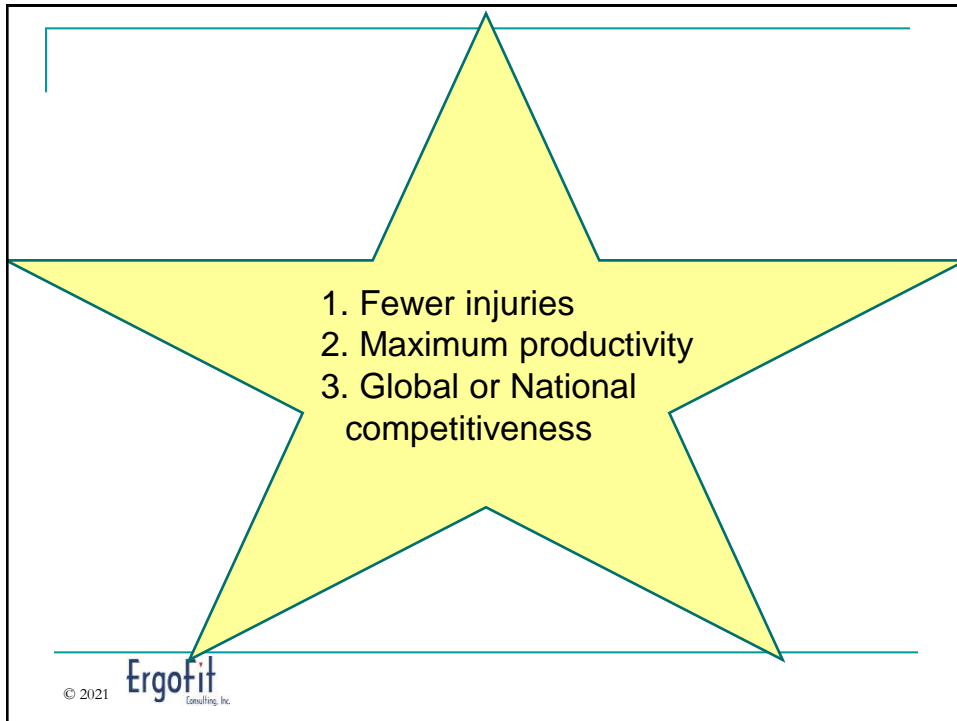


Aon Hewitt's 2015 study for AARP: Business Case for Workers 50+

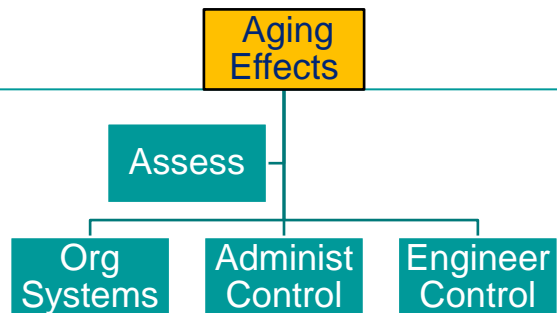
Aging Worker Context



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Aging Effects



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40 y.o. needs 2x light as 20 y.o.
60 y.o. needs 5-6x light as 20 y.o.
Blue, Yellow harder to see



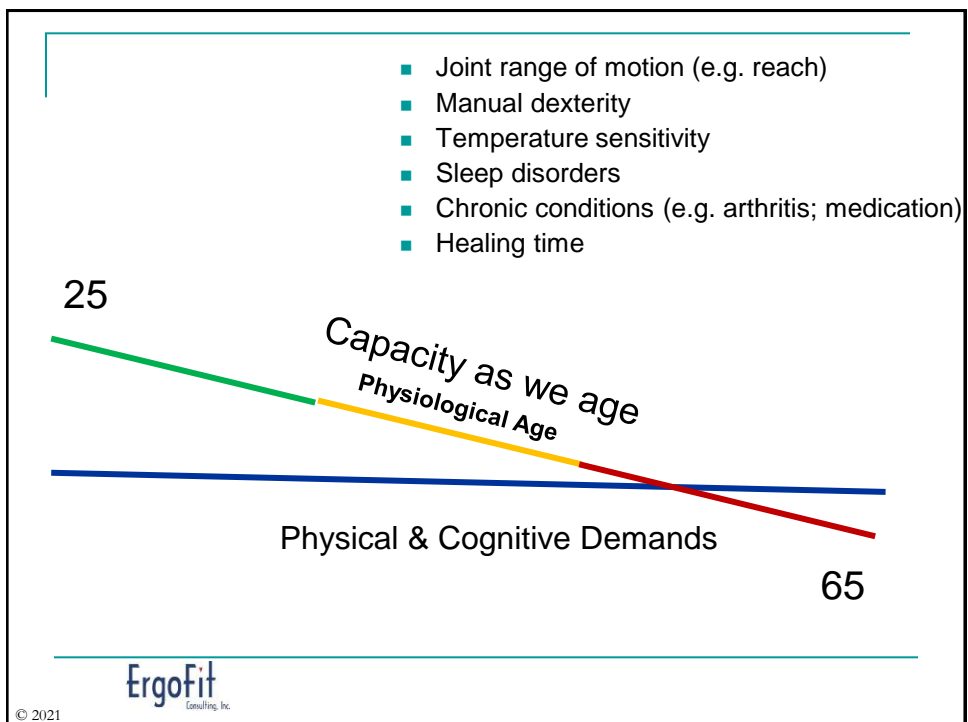
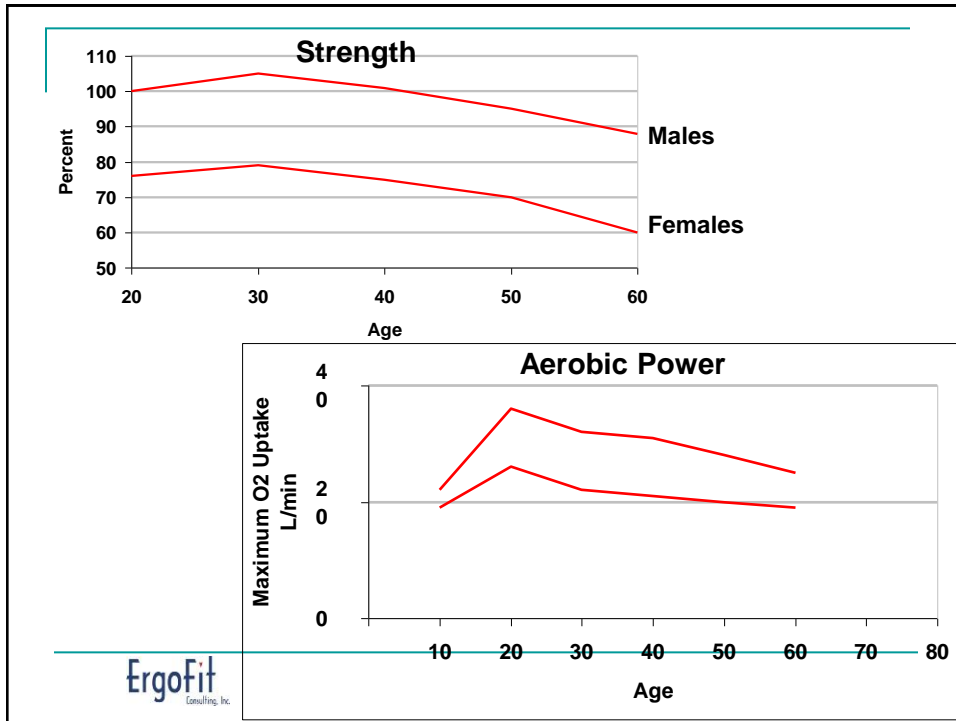
Decreases 2-3.5% PER year after age 20
Avg. 10 dB loss by age 50

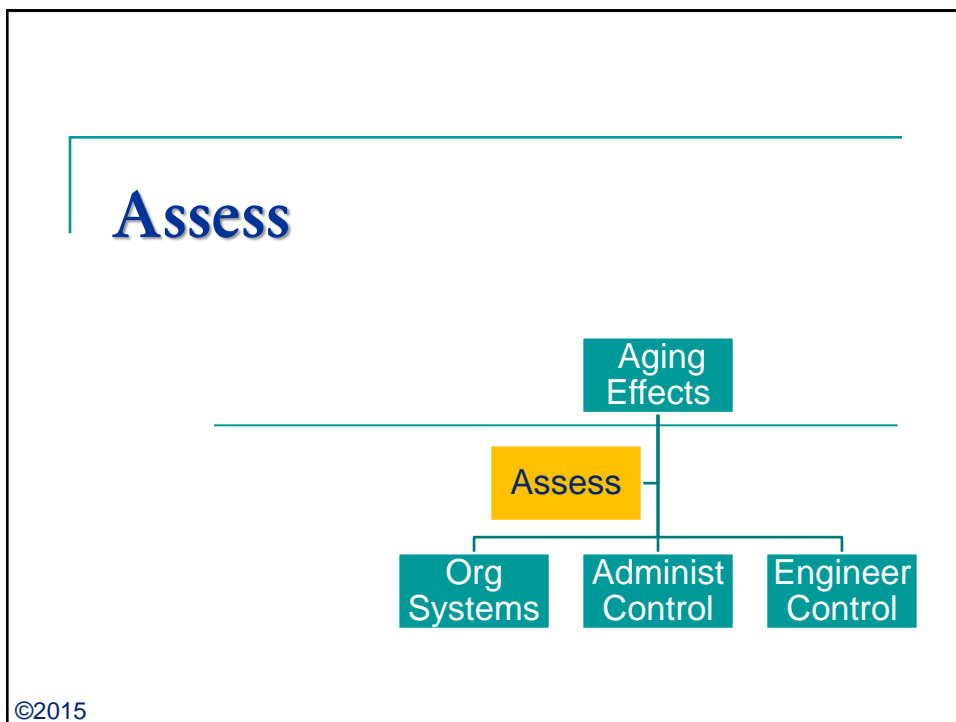
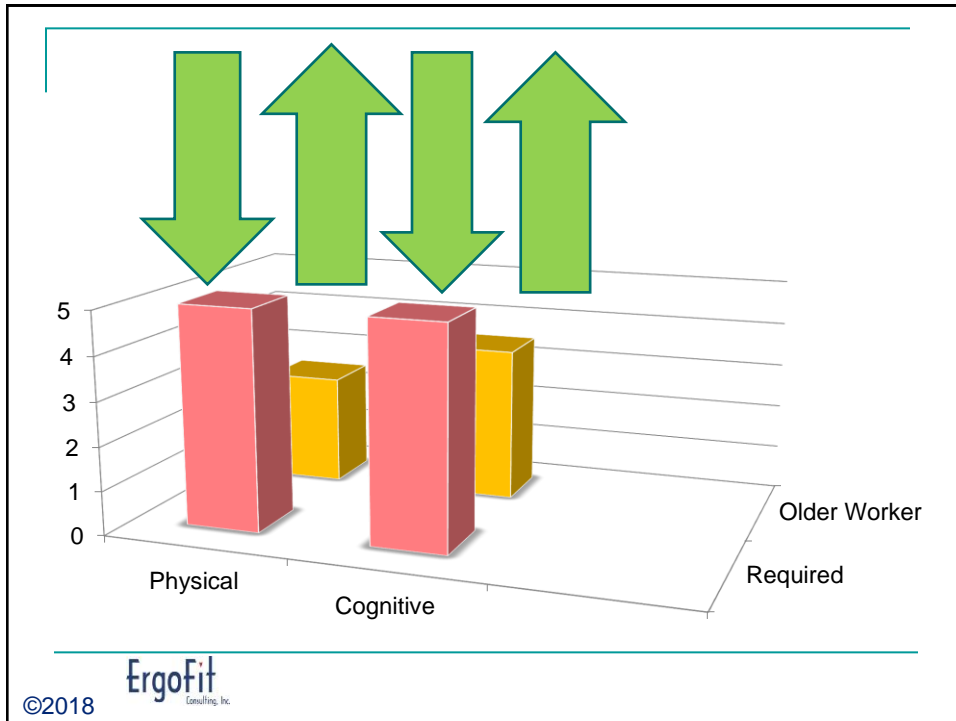


Reactions slower
Decreased balance
Increased slip, trip, fall



Cognition speed slower
Learning better





Assess

- Policies
- Demographics
- Injury trend data
- Work Ability Index – is there a mis-match?
 - 2-27 = poor = reinstate work ability
 - 28-36 = medium = improve work ability
 - 37-43 = good = support work ability
 - 44-49 = very good = maintain work ability
- Additional Resources:
 - <http://virgo.bc.edu/employerbenchmarking/survey#review>
 - http://www.wisconsinjobcenter.org/ow/ow_er_assessment.pdf

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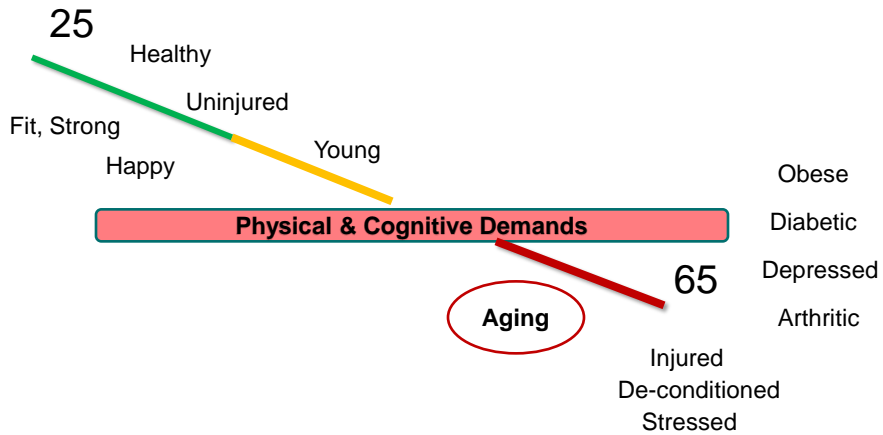
Other Assessments

- Job Demands Analysis – Positions, Maneuvers, Forces, Cognition
 - Frequency
 - Dimensions
 - Distances
- Hazard Mapping & Improvements
 - Ergonomic Assessment– informal or formal
 - OSHA Hazard Assessment

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Ergonomics to Fix the Mis-Match



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Work
Systems

Human
Centered
Ergonomic
Design

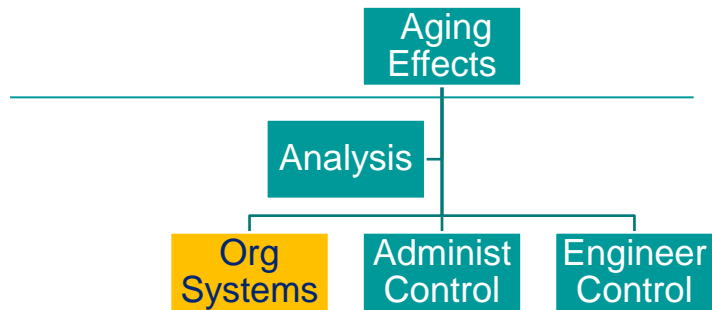
Work
Tasks

Work
Processes

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Controls



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Organizational Controls

- Age discrimination protection policies
- Commitment to accommodating older worker
- Respectful Corporate Culture
- Hiring practices
- Health insurance plans
- Phased retirement



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Ilmarinen 2003 re: the Work Ability Index; Liberty Mutual

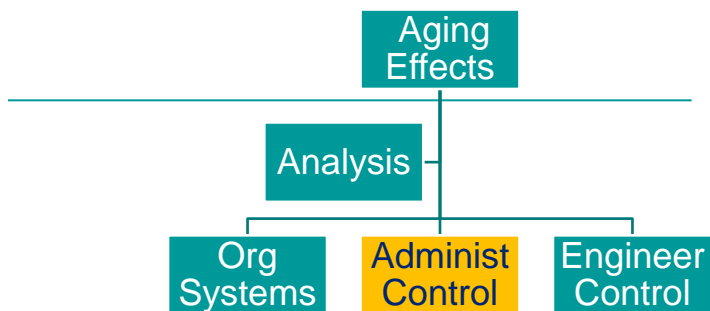
Organizational Controls

- Work Ability Index (or similar)
- Mentoring program
- Flexible work options & RTW policies
- Corporate wellness

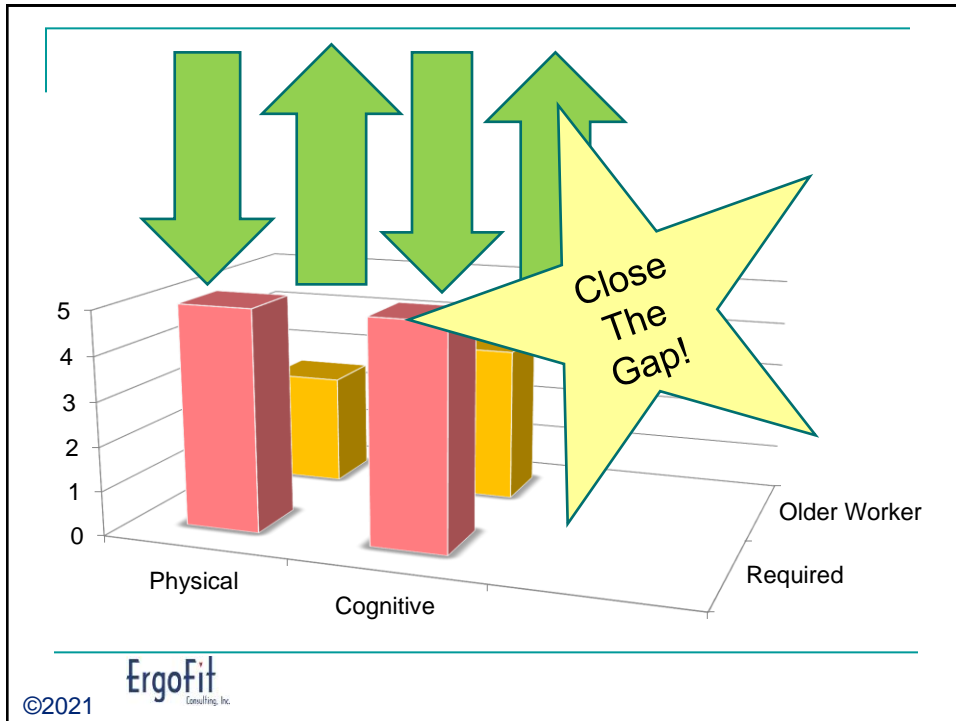


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Controls



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Administrative Controls

- New hire and 50+ conditioning
- Task Matching to Job Analysis
- Job design
 - NO DRIVING for 75+ y.o
 - Self-paced jobs vs. not
 - Work / Rest cycles
- Modify Training methods and times

Corporate Wellness

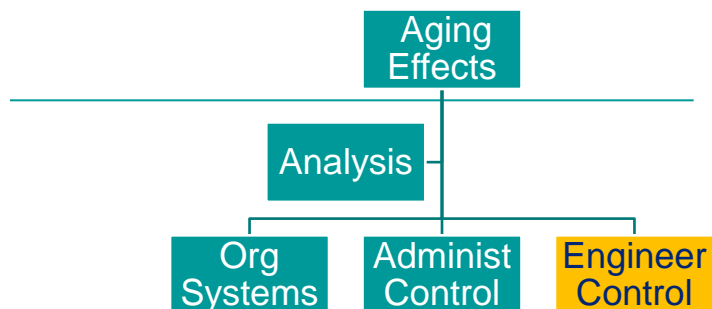
- Biometric measures as incentives
- General Conditioning Program
- Dynamic Warm Up program
- Back Health program
- Health / Wellness education
- Healthy snacks at meetings



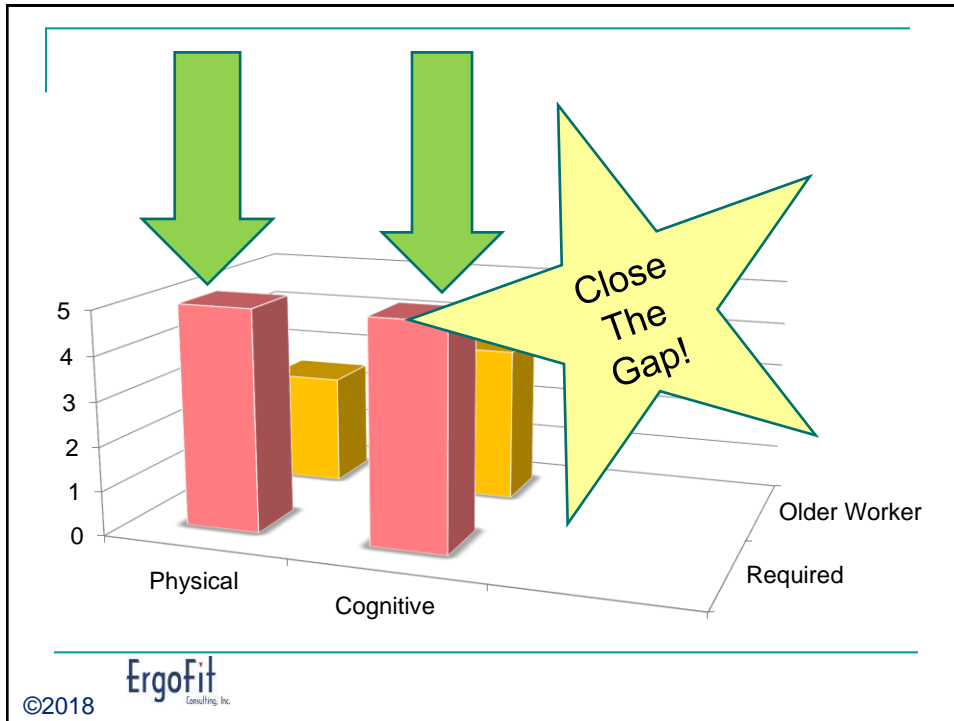
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Ergonomic Engineering Controls

■ Ergonomic Engineering Controls

- Physical demands
- Cognitive demands
- Sensory demands

PPE not considered engineering control, but role to play

BMW Case Study (2010)

- Participatory approach
- 1 assembly line avg age 47
 - 70 small ergo changes
 - ~\$50K (incl lost time)
- Productivity ↑ 7%
- Non-attendance ↓ below factory's average
- Defect rate ↓ to zero



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Sept. 2010 article in [carscoop.blogspot](http://carscoop.blogspot.com)

Particularly Problematic

- Driving (> 75 y.o.)
- Slick, uneven, or cluttered walking surfaces
- Ladder work
- High speed work or reaction times
- Frequent, heavy, or awkward lift, carry, push, pull

**Driving &
Slip / Trip / Fall**

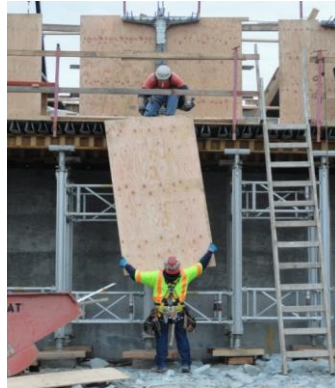


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Also Problematic

- Above shoulder work
- Below knee work
- Twisting
- Non-ambient temperatures
- Background noise
- Light: insufficient, variable, glare

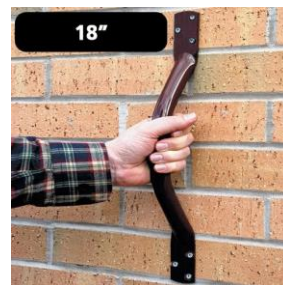


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Eradicate Slip & Fall Risk

- Friction surfaces (hand, feet)
- Handrails / hand holds
- Slipping Rates \uparrow^* :
 - By 14.6x on a contaminated floor
 - By 2.9x when rushing
 - By 1.7x when distracted
 - Worker Perception of slipperiness valid – 4-pt scale



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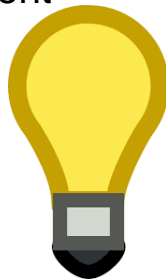
*UCLA webinar

Eradicate Slip & Fall Risk

- Eliminate Spills
- Clear Paths (housekeeping)
- Perfect Stairs
- Slip resistant shoes ↓ slip rate 54%
- Smooth surfaces & transitions for footing

Ergonomic Engineering Controls

- 50% more lighting for 40-55 y.o.'s
- 100% more lighting for > 55 y.o.'s
- Eliminate harsh light transitions & glare
- Individual adjustment



Ergonomic Engineering Controls

- Avoid lifting / **carrying** > 25 lb.
- Mechanical devices
- Reduce reach distance!
- Equipment maintenance



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Problem Solving & Aging Hazard Mapping

Get out a piece of paper

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■ Age Effect

- Reduced Strength & ability to lift

■ Safety Implication

- Back injury
- Dropped, damaged goods

■ Solution

- Create way to slide object instead of lift
- Vvv
- Www
- Xxx
- Yyy
- Zzz

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Age Effects List

- Strength
- Endurance
- Range of motion
- Balance
- Reaction Time
- Vision
- Hearing Loss
- Temperature Sensitivity
- Fatigue
- Memory & thinking speed
- Poor health

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Wrap-Up

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For One, For All Competitive



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Download from megapixel.com/9985174

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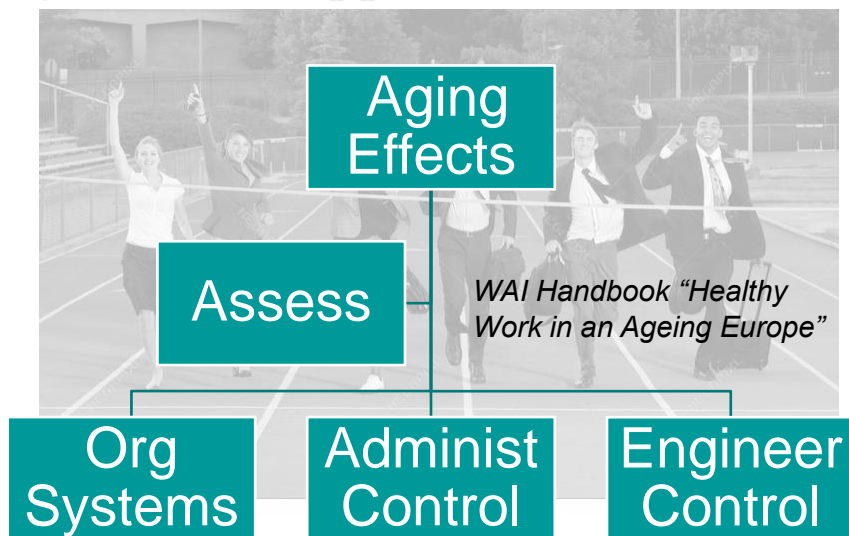
What's Next?

- Does your organization care?
- How can you integrate this?
- Who are the stakeholders and allies?
 - How will you engage them?
- How will you create long term and short term goals?
- What will you start with? What's your plan?
- How will you communicate along the way?

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Systematic Approach



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Thank you!

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Ergonomics Benchmarking Survey

Assess

Facility

Dept

Job

Task

Individual

Educate

Execs

Management
Supervisors

Safety
Committee

Employees

Design

Policy
Protocol

Facility
Workstations

Furniture &
Equipment
Selection