

INNOVATIONS IN WFH ERGONOMICS PROGRAMS

COVID-19 and the Future of the Office

Presented by: Jonathan Puleio, M.Sc. CPE

WFH: AN UNPRECEDENTED GLOBAL SHIFT

- **58%** of the total U.S. workforce (**85 million workers**) are now working from home
- **50-75%** will continue to work from home through 2020

Source: <https://globalworkplaceanalytics.com/work-at-home-after-covid-19-our-forecast>



WFH: EMPLOYEE RESPONSE

- Iometrics/GWA survey of **2,856** WFH employees
- **82%** of U.S. workers want to continue working from home, but would prefer **2.5** days/week
- **86%** feel productive and report **35** min/day gained due to fewer unwanted interruptions
- When working in groups, only **63%** are satisfied at home vs. **90%** at the office

Source: Global Work-from-Home Experience Survey Report, Iometrics and Global Workplace Analytics, May 2020



WFH: EMPLOYER RESPONSE

- Survey of **1889** organizations/**1468** based in North America
- **57%** are providing some level of reimbursement for equipment purchases
- **70%** are providing additional scheduling flexibility to employees with children
- Estimated annual employer cost savings per employee: **11K/year**

Source: AON pulse survey: “Adjusting Total Rewards Programs and Workforce Strategies in Response to COVID-19,” April, 2020.



WFH: LEADERSHIP RESPONSE



"If our employees are in a role and situation that enables them to work from home and they want to continue to do so forever, we will make that happen," **Jennifer Christie, Vice President of People**



"Until recently, work happened in the office. Our remote staff used the internet as a bridge to the office. This will reverse now. The office of the future is a digital workplace that you can access from your WFH setup," **Tobi Lutke, CEO**

Source: McLean, R. 'These companies plan to make working from home the new normal. As in forever' CNN Business, June 25th, 2020

HOME VS. TRADITIONAL OFFICE

Emerging Challenges

- The ratio of facilities to employees is now 1:1 and organizations lack visibility into the home
- There is immense variability in home environments and immediate equipment concerns:
 - WFH employees are working at raised kitchen counters, coffee tables - even their beds!
 - WFH employees are sitting on non-adjustable dining room chairs, stools and couches



WFH POSTURAL CONCERNS

- Typical non-adjustable home workstations place users at elevated risk of developing MSDs when compared to a traditional office
- Risk factors include prolonged laptop usage, inadequate seating and fixed height worksurfaces

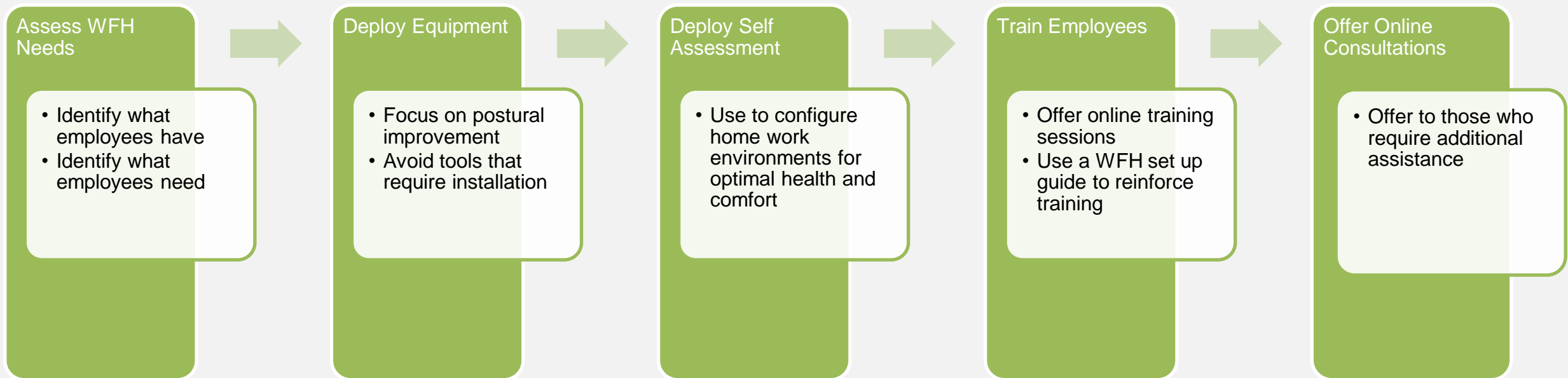


STIPENDS ALONE ARE PROBLEMATIC

- Many organizations are issuing equipment stipends ranging from \$300-\$1500
- While well intentioned, most employees lack sufficient awareness of ergonomics to make informed decisions about their WFH setup – ***stipends alone are not likely to yield positive results***
- How can we do better?



A SUGGESTED WFH APPROACH



DEVELOPING A RULES-BASED ONLINE NEEDS ASSESSMENT

Objectives:

1. Identify postural concerns
2. Identify equipment concerns
3. Determine equipment requirements
4. Ensure compatibility of equipment recommendations



DEVELOPING A RULES-BASED ONLINE NEEDS ASSESSMENT

Functional Requirements:

- Must utilize rules (branching) to ensure that all questions are relevant to the employee's actual work environment
- Must be completed in **5** minutes or less (no more than **20-25** questions)
- Must offer both individual and corporate level reporting

ergoIQ[®] HOME
by Humanscale

WFH Needs Assessment

The following needs assessment was developed to evaluate ergonomic requirements for your current home work environment. It should take no longer than 5 minutes to complete.

10

Do you tend to lean forward in your chair while typing? *



☐ Yes

☐ No

11

Are your thighs about parallel to the floor? *



☐ Yes

☐ No

DEVELOPING A RULES-BASED ONLINE NEEDS ASSESSMENT

Areas of Focus:

1. Technology Utilization
2. Work Tools
3. Seated Posture
4. Hand & Wrist Posture
5. Work Environment



DEVELOPING A RULES-BASED ONLINE NEEDS ASSESSMENT

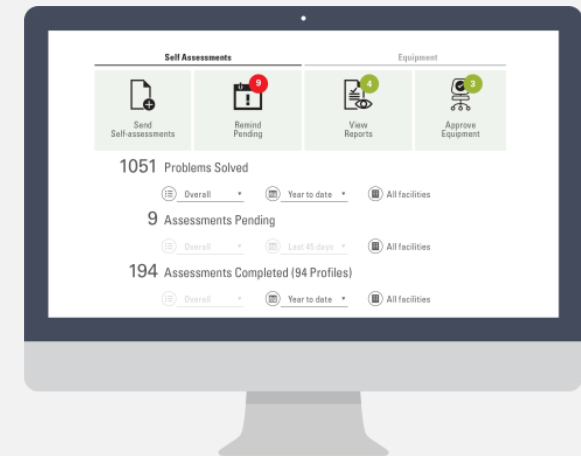
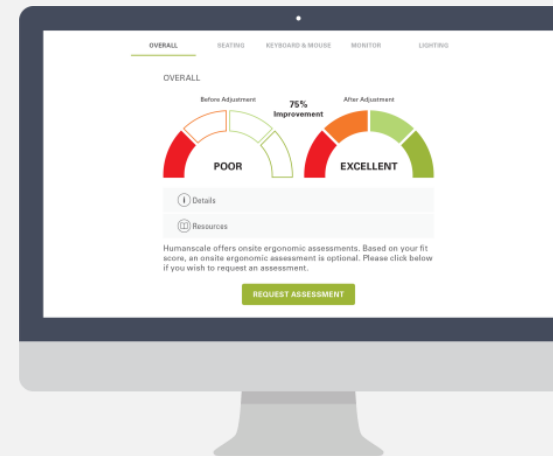
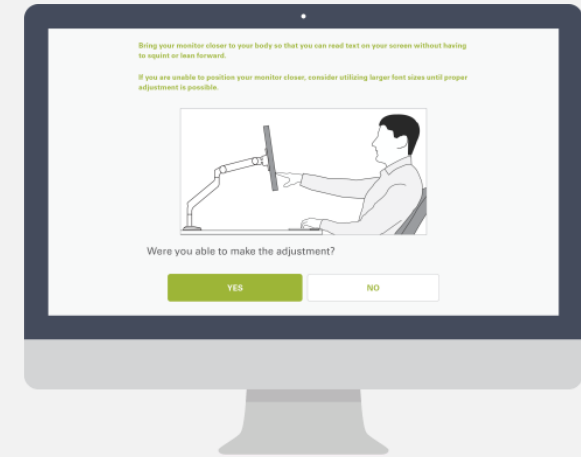
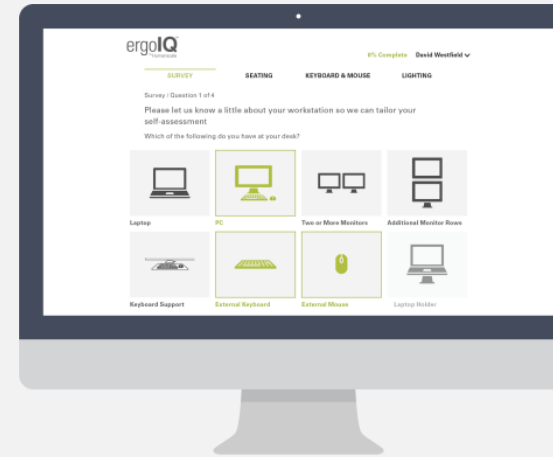
Report Generation:

- Rules are applied to the data set to generate reports
- Reports summarize responses, postural risk factors and equipment recommendations
- Organizations can use reports to prioritize interventions, set budgets and procure required equipment for WFH employees



IMPLEMENTATION STRATEGY

- Online self-assessments configure employee workstations after equipment is deployed and train users on proper adjustment guidelines
- Employees requiring extra assistance should have the ability to request an online consultation
- Automating scheduling and communications reduces administrative loading and improves the employee experience



TAKEAWAYS

1. There is a significant opportunity to innovate in the area of WFH ergonomics
2. New thinking is required to accommodate WFH employees and overcome new health and wellness challenges
3. Online tools are inexpensive to develop, scalable and can be deployed quickly to assess need and assist with proper configuration
4. Needs assessments ensure that the right equipment is purchased based actual need vs. perceived need



Ergonomic Assessments Remote and In-person in Post-COVID Offices

COVID-19 and the Future of the Office

Presented by: Dr. Linda Miller, OTD, CCPE

Agenda

- General Overview
- Remote office ergonomic assessments
 - Assessment approach
 - New Challenges
- In-person office ergonomic assessments
 - Assessment approach
 - New challenges
- Q & A

Prior to Pandemic

- 3.4% of total US workforce telecommuted – fulltime or part of the time approximately 7 million workers¹
- 40-45% of US employers offer remote work^{1,2}

Current State

- One third the labor force in the US and Canada switched to remote work¹⁻³
- Up to 80% of employers will offer remote work long term.
- Our experience from our clients:
 - Staggered re-entry varied across the country – date of re-entry was September now moved to January 2021
 - As little as 10% of workforce back at the office.
 - Many report workforce will remain home till a vaccine is found.

Work From Home Permanently



Reported Concerns Now – Working From Home

- Difficulty defining boundaries and managing distractions^{6,8}
- Social isolation⁶
- Technology concerns⁶
- Reduced physical activity⁸
- Poor workspace set up due to:
 - Shared workspaces or lack of a defined space⁷
 - Lack of proper furniture and equipment^{7,8}

Remote Ergonomic Assessments

- Questionnaire, photos and online meetings (video)
- Risk Factors:
 - Physical
 - Psychological
- Provide low cost or no cost solutions⁷

Challenges

- Many employers lack a process to handle safely working from home (ergonomics)
- Difficulty obtaining proper equipment when recommended
- Lack of space or defined work area
- Stipends vary
- Individuals may have a global stipend that must cover everything including the assessment

In-person Assessments

- Employers are prioritizing virtual assessments over in-person
- COVID protocols and proper PPE – pre-work and taking longer
- Nature of assessment is more talk-based

Observations and Challenges

- Increased physical spacing is impacting layouts
- Varying levels of anxiety and readiness
- No shared work stations
- Difficulty obtaining proper equipment
- Most assessments are reactive, and individuals are in significant pain/discomfort.

Q & A

Imiller@ewiworks.com

Wearable Technology for Risk Management in Post- COVID Offices

COVID-19 and the Future of the Office

Presented by: David J. Damico, CPE

What's Driving the Office of the Future?

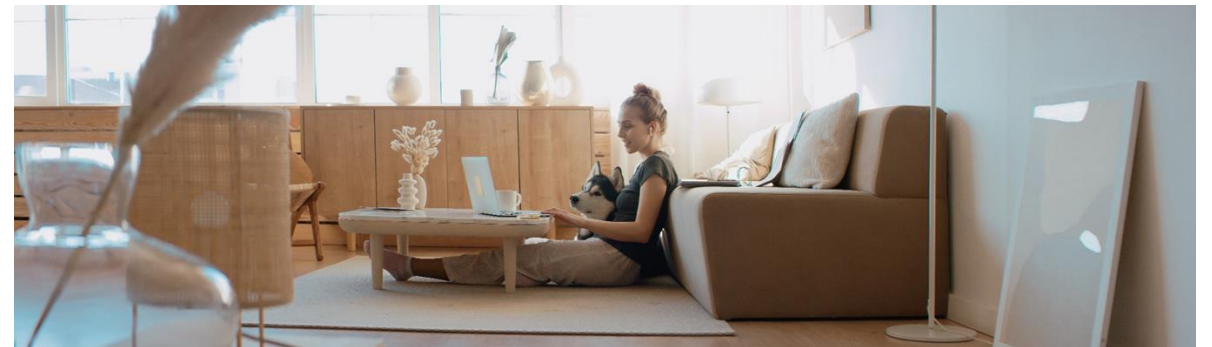
“...I have a feeling we’re not in Kansas anymore.”



* 1939 film, The Wizard of Oz

What's Driving the Office of the Future?

- **Telecommuting has increased more than 115% (2005-2015)**
- **Estimate 30% working from home, for multiple days per week, at end of 2021**



Redesigning the Office of the Future

- **Connectivity to all things**
- **Flexibility in the way work is completed**

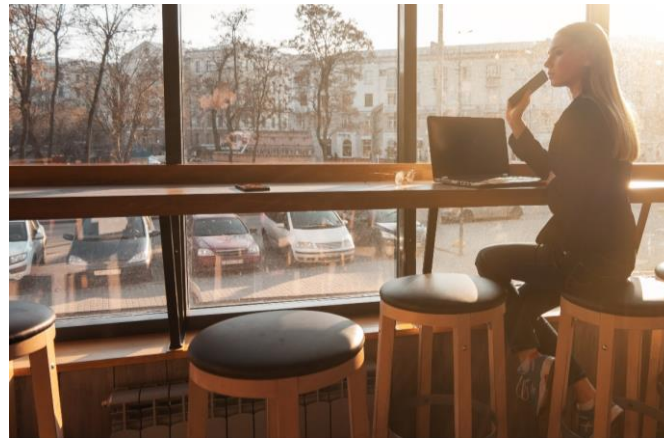


MSD Risks in the Office of the Future

- **Awkward postures associated with flexible working environments**



Twisting at the waist



Raised shoulders



Wrist extension

MSD Risks in the Office of the Future

- **Virtual reality will integrate into future offices**

Risks: balance, bumping, motion sickness



Types of Wearable Devices

- **Device design dictates how it is worn**
 - Outside clothing
 - Against the skin
 - Belt
 - Clip
 - Adhesive
 - Necklace
 - Over ear
 - Clothing
 - Wrist band

Types of Wearable Devices

- **Non-work-related**

Personal Fitness



Healthcare



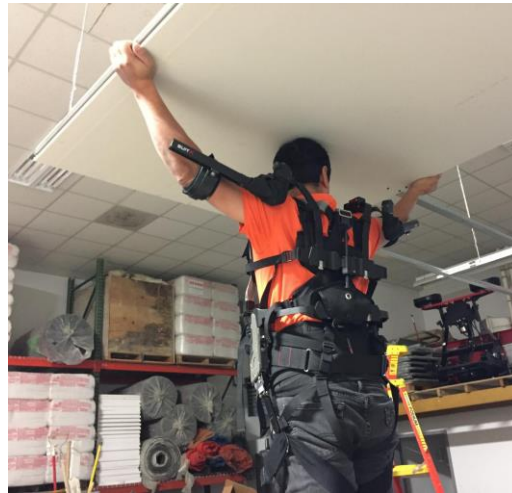
Types of Wearable Devices

- **Work-related**

Exoskeletons



Permission: SuitX



Permission: SuitX

Posture Sensing Devices



Permission: Strongarmtech

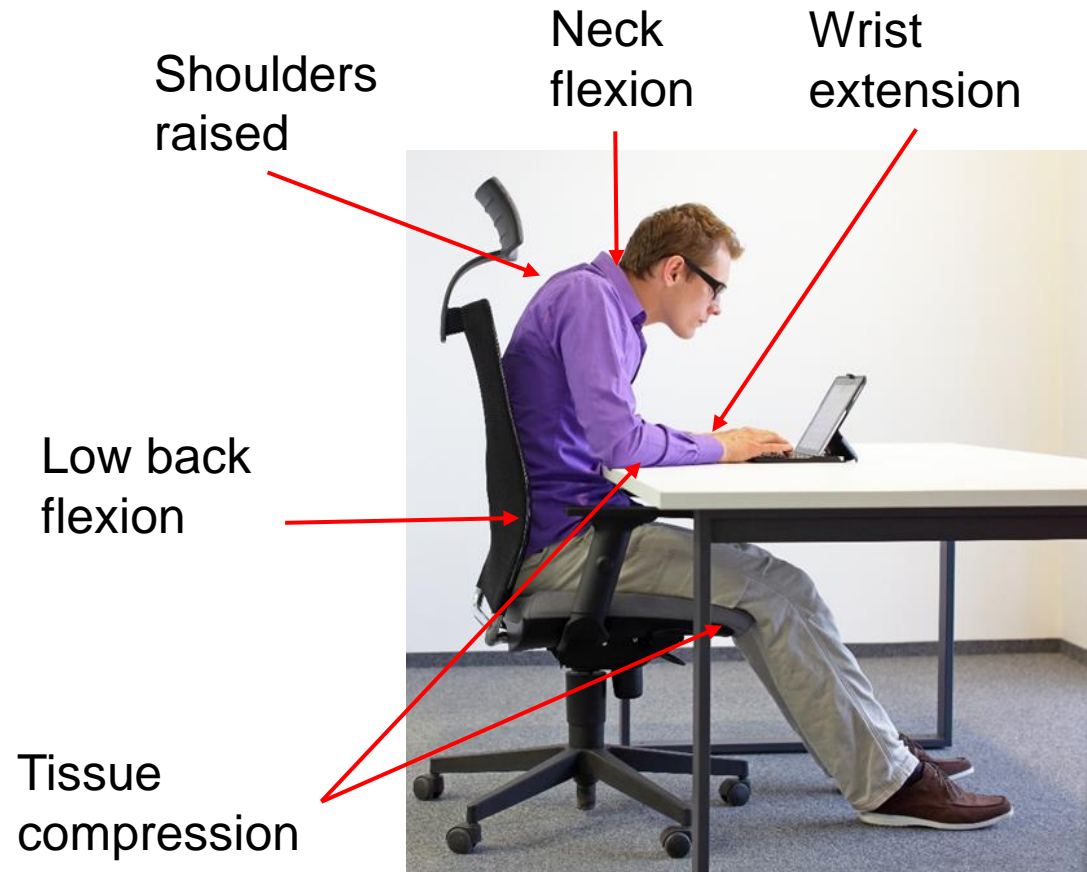


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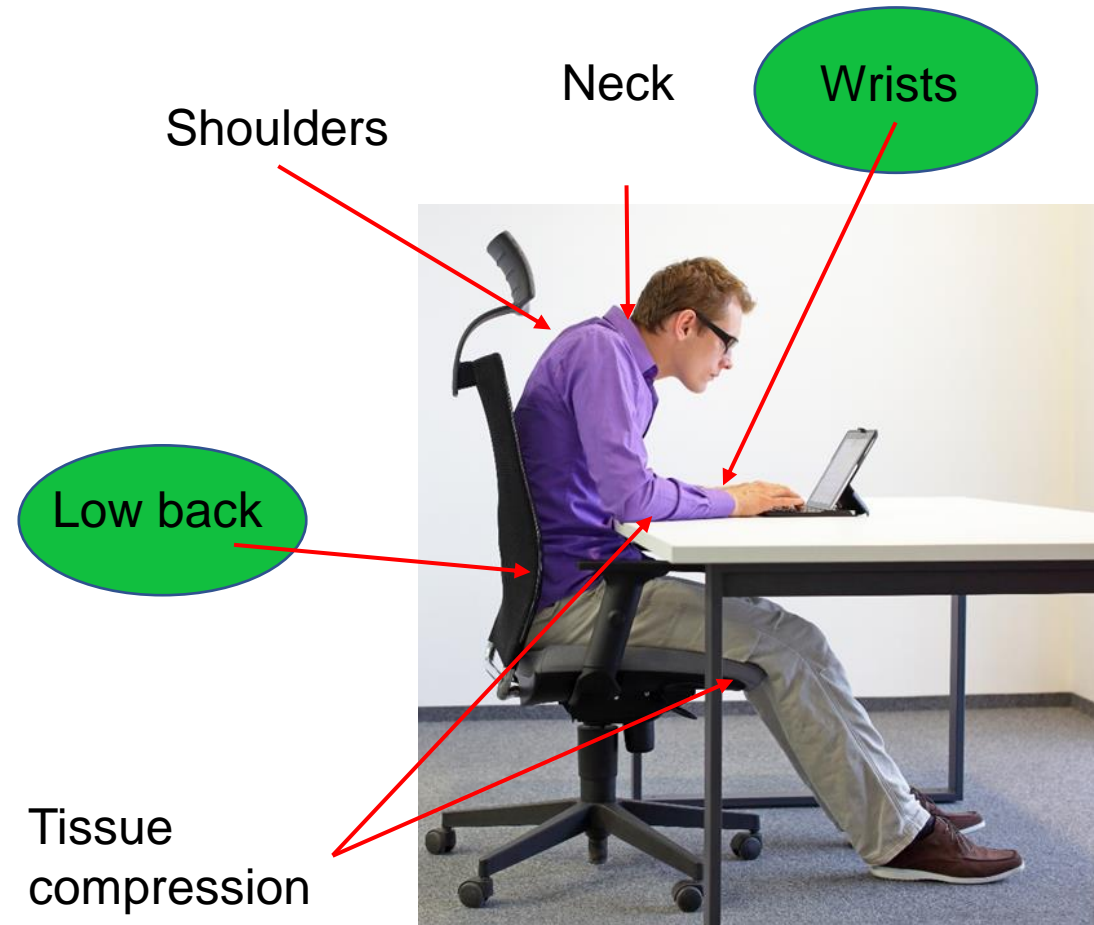
Where can Wearables be Used

- **Future offices**
 - Office buildings
 - Home Offices
 - Unique settings (e.g. parks, cafés)

Postural Risks Associated with MSD's

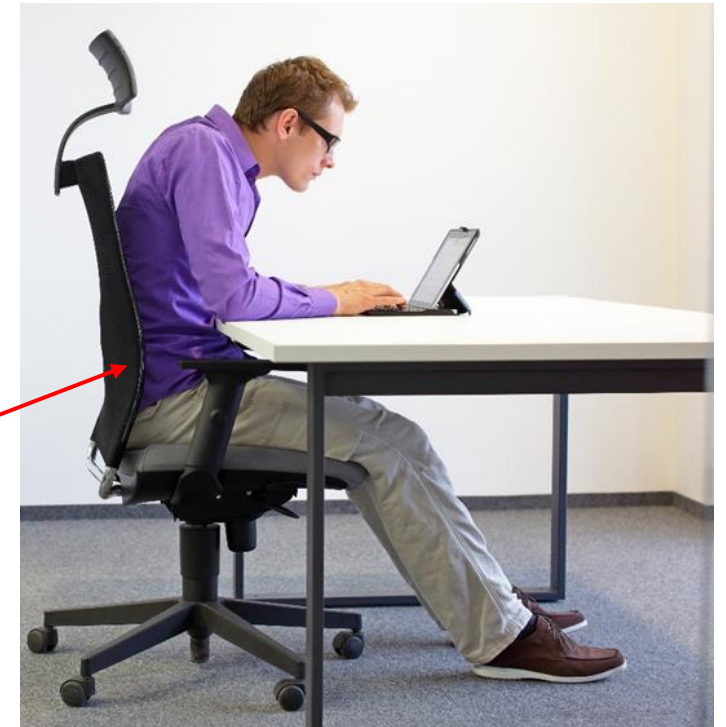
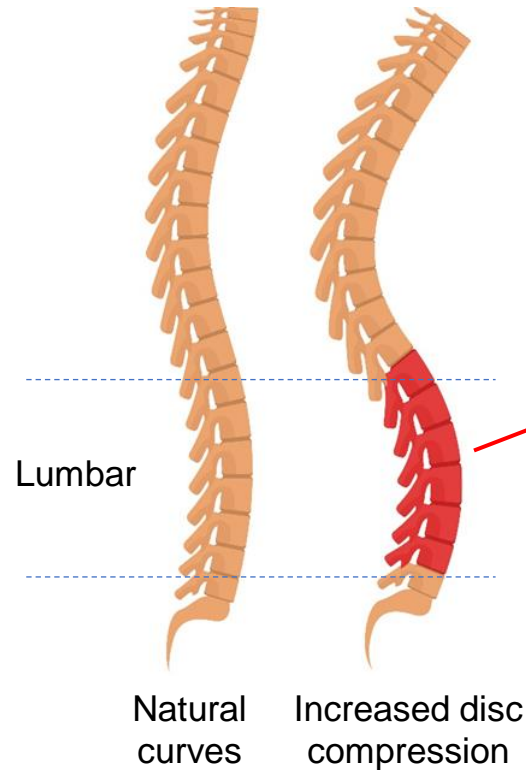


Wearables Monitor Postural Risks Factors



Postural Risk Factor at the Low Back

- **Low back flexion & twisting**
 - Increases pressure on discs in lower spine



Measuring Risk Factors at the Low Back

- **Wearables...**
 - Measure back flexion/extension
 - Degree and frequency
 - Measure twisting at the waist
 - Degree and frequency
 - Alert on back flexion/extension
 - Graph back flexion/extension
 - Email responsible POC's when thresholds are exceeded

Example of two wearable formats



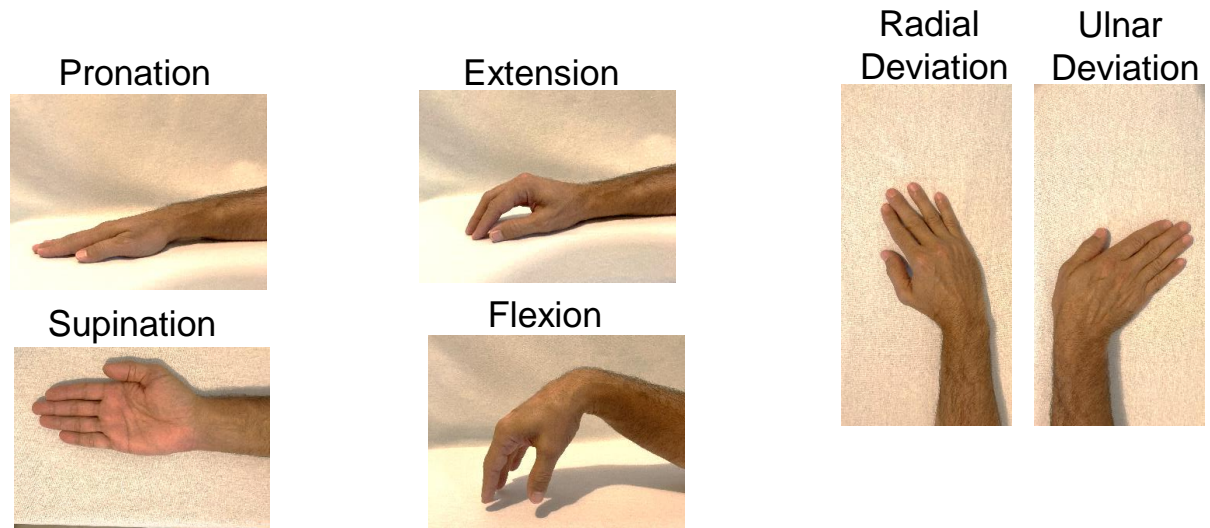
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Postural Risk Factors at the Wrist

- **Pronation**
- **Supination**
- **Extension**
- **Flexion**
- **Radial Deviation**
- **Ulnar Deviation**



Measuring Risk Factors at the Wrist

- **Wearables measure...**
 - Pronation
 - Supination
 - Extension
 - Flexion
 - Radial Deviation
 - Ulnar Deviation



Permission: Modjoul

Measuring Risk Factors at the Wrist

- **Wearables...**
 - Measure six wrist postures
 - Frequency
 - Alert on postures?
 - Graph postures
 - Email responsible POC's of posture concerns at end of day

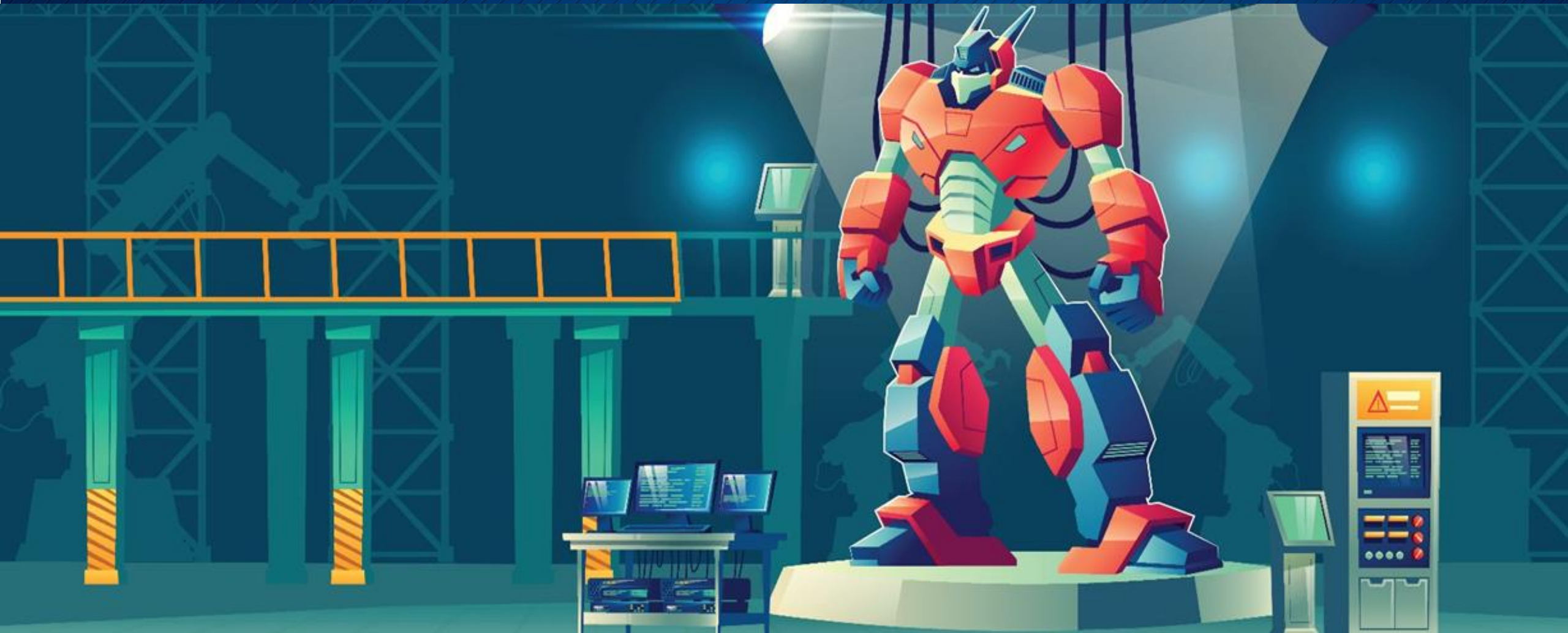


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Actionable Takeaways

- **Valuable in remote and flexible work environments**
 - Full time use or short term situational awareness
- **Used in injury prevention and recovery**
 - Reduce frequency and severity of awkward postures
- **Allow workers to monitor their work behavior**
 - Improve daily comfort
- **Alerts on unusual/harmful work**
 - Keep workers from harmful task conditions

Is it Just a Matter of Time?



Q & A

- **Speakers Contact Information**

David J. Damico, MA, CPE

Senior Ergonomics Consultant

Vice President, Consulting Solutions, Marsh Advisory

Marsh | 3560 Lenox Rd., 24th Floor, Atlanta, GA 30326

Cell: 210-393-8000 | Email: david.j.damico@marsh.com

Managing Emotional Wellbeing in Post-COVID Offices

COVID-19 and the Future of the Office

Presented by Kibibi Springs
Created by Kibibi Springs with Dr. Melissa Steach
Workplace Wellbeing Knowledge Leads, East and West North America, Herman Miller

An Industrial-Organizational Psychology Lens

Industrial-Organizational (I-O) Psychology is characterized by the scientific study of human behavior in organizations and the workplace.

The specialty focuses on deriving principles of individual, group and organizational behavior and applying this knowledge to the solution of problems at work.

-- **American Psychological Association**

Behavioral and Mental Health Move Center Stage

- **Mitigation Behaviors**
 - Physical distancing, wearing masks and handwashing
- **Engagement**
 - Increases due to threats of economic downturn/job loss
- **Wellbeing**
 - Stress, anxiety, depression and hopelessness

Movement Matters to our Mood and Mindset

- **Sitting Better**
 - WFH increased the value of a supportive task chair
- **Posture Signaling**
 - Postures that indicate physical suffering
- **Reimagining Movement**
 - Consciously increasing N.E.A.T.
 - Designing daily workflow to support movement

Redefining Social Contracts and Connection

- **Public Health and Safety**
 - Adherence to distancing, handwashing and mask wearing
- **Organizational Culture and Trust**
 - Office Space and Policy Changes
 - New etiquette agreements
- **Social Pacts and Agreements**
 - Defining and negotiating the terms of physical social interaction (i.e., testing, masks, distancing, Covid-Pods)

Takeaways

1. Rise in proactive behavioral/mental health interventions.
2. Ergonomic behaviors for an “everything from home” experience.
3. Social contracts of behavior to facilitate greater collaboration.

THANK YOU & BE WELL

Kibibi Springs, Ph.D. Candidate, CEAS I

Kibibi_Springs@HermanMiller.com

www.linkedin.com/in/kibibisprings

Dr. Melissa Steach, CEAS I

Melissa_Steach@HermanMiller.com

www.linkedin.com/in/melissasteach