The Holistic Approach to Management of Musculoskeletal Injuries

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Speaker Background

- 2014 DPT UW-Madison
- MS Mechanical Engineering
- BS Biomedical Engineering
- Bellin Health in 2014
- Currently a team facilitator overseeing >50 Employer Clinic therapy services (OT, PT, PTA, LAT)



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269 Employer Partners;

Generating **75,709** Annual Visits; Managing **40,806** Bellin Lives; Delivering **One** Mission.

"Saving lives before they know they need saving."



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Main Points of Today's Presentation · Steps to manage musculoskeletal health - The Why - The How • Prevention Considerations/Services Early Intervention Program Medical Treatment - The Results bellinhealth Titletown Sports Medicine & Orthopedics Start with WHY · Right for the employer - Control work comp spend Control health care insurance spend Attract healthy employees Keeps employees high performing and engaged bellinhealth | Business & Community Health Start with WHY · Right for the employee Person (family, friend, community, church) Occupation (self care, career) bellinhealth Business & Community Health

• Prevention is Key!!! · Early Intervention • Medical Treatment bellinhealth © Official Handreson Partner of Prevention: Non-Clinical Factors on the Significance of Health¹ Six Domains of Social Physical Environment 10% Social and **Determinants of Health** Economic Factors - Economic Stability Education - Food Clinical Neighborhood and Physical Environment Care 20% - Community and Social Context Health Care System Health Factors Influencing the Length of Life Behaviors 85% of Physicians reporting that unmet social needs lead directly to poorer health outcomes 30% bellinhealth © O'Road Has Process Further of Prevention: Dimensions of Health - Holistic Medicine: Healing the whole person

SleepStressDietFitnessSmoking

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WHAT will be included in delivery of service?

Prevention: MSD Risk Factors-Sleep

Sleep is critical for the proper functioning of the body Without Adequate Sleep² Increased pain perception - Increased depression, anxiety

- Decreased memory - Reduced ability to learn new motor
- skills

 Increased risk for accidents, injuries, and falls

· Too Much or Too Little! Recommend >7 or <9 hours of sleep per day³

Insomnia was significantly associated with workplace and non workplace injuries among workers having no comorbid conditions



33% of the US population suffer from sleep disturbances³

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Prevention: MSD Risk Factors-Sleep⁴

Priority: Maintain a regular bedtime and wake-up schedule.

it will help you to get better sleep.

Create a sleep environment that is relaxing, dark, and cool.

Your bedroom should be your sleep oasis and be free from distractions. A dark space keeps unnecessary light out of your eyes which causes you to wake up. Your body also drops in temperature as you sleep, so keeping your room cool will help with your sleep cycle.

Avoid caffeine, nicotine, and alcohol close to bedtime.

All of these substances will disturb your sleep schedule. Avoid caffeine and nicotine for at least 3-5 hours before bed. Alcohol, which people usually think of as a sedative, actually disrupts sleep by causing nighttime awakenings. Consuming less alcohol will help you to sleep better.

Establish a relaxing bedtime routine.

Whether this be soaking in a bathtub, listening to soothing music, or reading a book, a routine that will slowly lull you into sleep will help you to feel more well rested and less fatigued.

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Prevention: MSD Risk Factors-Smoking

- Smoking⁵
 - 1.5 times more likely to have a motor vehicle crash
 - 1.4-2.5 times more likely to be injured at work
- · What Can Be Done?
 - Knowing workforce percentage of tobacco users
 - Readiness to change
 - Offer tobacco cessation programs
 - Understand insurance benefits
 - Offer incentives

Readiness to Change



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Prevention: MSD Risk Factors- Emotional Health

- Emotional Health⁶
 - Patient-reported symptom severity in carpal tunnel syndrome (CTS) is significantly and positively associated with anxiety, depression, health-related quality of life, and NHS and societal costs even when adjusting for age, gender, body mass index, comorbidities, smoking, drinking and occupational status.
- · What Can Be Done?
 - Knowing workforce percentage of population with mental health concerns
 - Understand benefits
 - Offer free counseling services (EAP)

Readiness to Change



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Prevention: MSD Risk Factors-Exercise

- Exercise⁷
 - Performing ≥ 150 min of aerobic activity/week, risk of MSD injury decreases.
- What Can Be Done?
 - Knowing workforce
 - Readiness to change
 - Offer incentives
 - Workplace fitness centers
 - Reduce barriers
 - Offer group classes



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Prevention: MSD Risk Factors-Body Mass Index

- Body Mass Index (BMI) Affects Worker's Compensation Costs and Outcomes8
 - Obese (BMI>30) Average Cost: \$470,000
 - Overweight (25≤BMI≤30) Average Cost: \$270,000
 - Normal Weight (BMI <25) Average Cost: \$180,000
- · What Can Be Done?
 - Knowing workforce percentage of obesity
 - Readiness to change
 - Offer weight loss programs
 - Offer of incentives

			Retired/	Total	Average	MINIMAL	MODERATE			EXTREME
Event	Employees	Spouses	Others	Participants		100 - 86	85 - 71	70 - 61	60 - 51	50 - 0
2021	104	18		122	76.0	28.7%	36.1%	19.7%	8.2%	7.4%
2020	124	23		147	73.0	24.5%	31.3%	25.2%	8.8%	10.2%
2019	126	21		147	72.0	23.8%	29.9%	24.5%	10.2%	11.6%
2018	131	22		153	71.8	24.2%	30.7%	21.6%	11.8%	11.8%
2017	138	30		168	70.7	19.6%	31.5%	25.0%	10.1%	13.7%

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Free Resource





- Year long program
- Wellbeing education & activities to increase awareness

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Prevention: Company Specific Services to Consider

- Physical job descriptions
- New hire functional testing to insure new hire is safe to work in a physical demanding job
- New hire or new to job within company orientation: standard procedure
- Fitness center orientations
- Physical risk screen
- Wellness plan that is job specific annual competency
- Ergonomics

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Prevention: Job Description and New Hire Functional testing

Bad hiring decisions can be costly. When you select the wrong people for physically demanding jobs, you risk losing a substantial amount of money in lost time claims each year.



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Prevention: New Hires		
New hire orientations New hire or new to job within company orientation: standard procedure		
Fitness center orientations		
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Prevention: Existing Employees		
Fit for duty		
Physical risk screenWellness plan that is specific to the job		
 Incorporate into an annual competency Ergonomics Incorporate your reports and recommendations into a process that already 		
exists within and employer		
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FIRST AID: Early Intervention Program		
Employees that have minor musculoskeletal discomfort may benefit from early intervention services. Provide basic 1* aid NOT medical treatment measures		
The goal is to address these problems as soon as they develop; before they become more severe and more costly. A method for employers to be proactive and provide services and care to their		
employees without the issue becoming OSHA recordable. Allows for employees to be seen sooner than scheduling an off-site appointment and can limit the expense of time away from work for appointments and follow ups.		
 Appointments typically last 15-30 minutes and may include follow ups at the job site for further monitoring of symptoms and job coaching recommendations. 		
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Accident Pyramid Nelcome to bellinhealth		

FIRST AID Versus Medical Treatment Definitions(OSHA)

First Aid	Medical Treatment
 Using a nonprescription medication at nonprescription strength. 	 Using prescription medicine or nonprescription medicine at prescription strength.
Drinking fluids for relief of heat stress.	Use of IV fluids for heat-related illness.
 Cleaning, flushing, or soaking wounds on the surface of the skin. 	Surgical debridement or draining of bruises by needle.
 Using wound coverings such as bandages, gauze, Steri-Strips, liquid bandage. 	Using sutures, staples, or surgical glue to close a wound.
Using hot or cold therapy.	 Any condition that is or should have treated by a means not listed on the First Aid list.
 Using non-rigid means of support, such as ACE bandages, non-rigid supports, K- tape. 	 Devices with metal stays or other systems designed to immobilize parts of the body.
Using temporary immobilization devices while transporting an accident victim.	 Any conditions that result in days away from work, restricted work, transfer to another job, or medical treatment beyond first aid.
 Ergonomic recommendations: advice on how to perform a job safely, including body mechanics and work simplification 	 Exercises recommended by a health care professional who trains the worker in the proper frequency, duration, and intensity of the exercise.
Using massages.	· Chiropractic manipulation or physical/occupational therapy

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Medical Treatment

- Outpatient OT/PT
 - Job specific goals
 - Workers compensation case manager, case adjuster, employer provider communication
 - Recommendations for change in work restrictions
 - Case management when worksite or workers comp problems occur (not following job restrictions, not getting paid)

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Outcomes



What does success look like?

- Bend the curve in MSD injuries (incident rate, DART, Experience Mod)
- Retention
- Performance
- Attendance
- ROI

Recordable Injuries

Employers working with Bellin ErgoRehab team focusing on Prevention & Early Intervention experience an average savings of \$3.00-\$4.00 for every \$1.00 spent.

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Summary: Key Points

- Focus on Prevention
 - SDOH

 - Holistic approachHiring the right individual for the job
 - Ergonomic considerations
- Early Intervention
 - -Catch early

 - -Employee participation -Company leadership involvement/support
- Medical Treatment
- -Job specific treatment programs/goals
- Outcomes

 - Bellin's ErgoRehab Program: 93% resolved/stable rate
 Average employer savings of \$3.00-4.00 for every \$1.00 spent

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THANK YOU



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Proceedings Models* County Health Rankings, 2020; "Health Carris Blind Side," Robert Wood informs foundation, proceedings 2021. Place Information for Physical Therapists, pages 12 (1997) 1997 (1997)