

Industrial Athletic Training: Understanding an Emerging Setting

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Disclosure

Allan Parsells and Sara Rodriguez are both full time employees of Amazon.com. The opinions and viewpoints presented here are not the opinions or viewpoints of Amazon.com or its subsidiaries.

About the Speaker

- Allan Parsells:
- Site Lead Workplace Health and Safety Manager – Amazon LGA9
- Previous experience:
 - Days WHSM @ Amazon 2021-2023
 - IPS @ Amazon 2020-2021
 - Head AT @ Oratory Prep 2013-2020
 - Assistant AT @ Stevens Institute of Technology 2011-2013
- Fun Fact: I am 5th cousins with Joe DiMaggio



About the Speaker

- Sara Rodriguez:
- Regional Injury Prevention Manager- Amazon (NJ/DE/MA)
- Previous experience:
 - IPS @ Amazon 2019-2021
 - Clinical Surgical Assistant @ Rothman Orthopaedics 2018-2019
 - Graduate Assistant ATC @ William Paterson University 2016-2018
- Fun Fact: I am a big traveler! Heading to Italy this May (my 4th country in Europe).



Objectives

1. Differentiate between the job scope of an athletic trainer working in the industrial setting and that of an athletic trainer in the traditional setting.
2. Recognize OSHA's role in defining the scope of practice for an athletic trainer in the industrial setting.
3. Discuss how the athletic trainer plays a role within an employer's Worker's Compensation costs.
4. Understand how an athletic trainer in the industrial setting uses data to drive change within business lines.



Industrial Athletic Training

- In the 2021 NATA Salary Survey, “Industrial Athletic Trainer” and “Injury Prevention Specialist” were not in the top 10 most reported job titles.

- Recently, companies like...



- According to Glassdoor.com, the Industrial Athletic Trainer compensation scale in the US ranges from \$58,000 to \$91,000 with an average of \$73,000 which would be 2nd highest paid setting based on the 2021 NATA salary survey.

Industrial Athletic Training Scope

BOC Practice Domains (8 th ed.)	Traditional ATC	Industrial ATC
Risk Reduction, Wellness, and Health Literacy	<ul style="list-style-type: none"> PPEs Medical timeouts/coaches seminars Monitoring weather conditions Ensuring playing surface safety 	<ul style="list-style-type: none"> PPE (personal protective equipment) Preventative wellness program Ergonomic coaching Employee safety onboarding
Assessment, Evaluation, and Diagnosis	<ul style="list-style-type: none"> Obtain a thorough history Perform injury evaluation Diagnosis or clinical impression Create a Plan of Care for the athlete 	<ul style="list-style-type: none"> Obtain a thorough history Perform injury evaluation and ergonomic assessment (if applicable) Clinical impression Create a treatment protocol for the employee
Critical Incident Management	<ul style="list-style-type: none"> Creation and implementation of EAP 	<ul style="list-style-type: none"> Execute the EAP as part of the site team
Therapeutic Intervention	<ul style="list-style-type: none"> Educate patient on rehab process Create and implement rehabilitation treatment plan and re-evaluate for RTP Administer therapeutic modalities and manual therapy techniques 	<ul style="list-style-type: none"> Educate employees on the healing process Perform OSHA First Aid treatment as needed Assess functional status, body mechanics for RTW Minimal use of modalities and manual therapy
Healthcare Administration and Professional Responsibility	<ul style="list-style-type: none"> Develop policies/procedures/plans for athlete care Practice within Federal and State Rules and Regulations Standardize documentation procedures 	<ul style="list-style-type: none"> Updating and enforcing policies and procedures (OSHA) Deep dive injury trends to improve workplace safety and ergonomics Practice within State and OSHA regulations Manage Worker's Compensation

Occupational Safety and Health Administration (OSHA)



- Management Leadership
- Worker Participation
- Hazard Identification and Assessment
- Hazard Prevention and Control
- Education and Training
- Program Evaluation and Improvement
- Coordination and Communication on Multi-Employer Worksites

OSHA First Aid



- Hot and cold therapies
- Massage
- Superficial wound and burn care
- OTC medication administration
- Non-rigid supports
- Hydration/Heat illness mitigation
- Draining blisters/nails

Ergonomics

- Certifications for ATs
 - CEAS I-IV
 - Workplace Ergonomic Specialist
- Employee Training
 - Onboarding
 - Wellness programs
 - Body positioning
- Preventative Coaching
 - Power zone work
 - Proper gripping and handling
 - Body positioning
- Assessments
 - REBA
 - RULA
 - Snook Tables



Ergonomic Tools for the Workplace

REBA Employee Assessment Worksheet

Based on Technical note: Rapid Entire Body Assessment (REBA), Hignett, McAtamney, Applied Ergonomics 31 (2000): 261-265

A. Neck, Trunk and Leg Analysis

Step 1: Locate Neck Position

Step 1a: Adjust...
If neck is twisted: +1
If neck is side bending: +1

Step 2: Locate Trunk Position

Step 2a: Adjust...
If trunk is twisted: +1
If trunk is side bending: +2

Step 3: Legs

Adjust: 30-60° +60°

Step 3a: Adjust...
If load < 11 lbs: +0
If load 11 to 22 lbs: +1
If load > 22 lbs: +2
Adjust: If shock or rapid build up of force: add +1

Step 4: Look-up Posture Score in Table A
Using values from steps 1-3 above, locate score in Table A.

Step 5: Add Force/Load Score
Well fitting handles and mid range power grip: good: +0
Acceptable but not ideal hand hold or coupling acceptable with another body part: fair: +1
Hand held not acceptable but possible: poor: +2
No handles, awkward, unstable with any body part, unacceptable: +3

Step 6: Score A, Find Row in Table C
Add values from steps 4 & 5 to obtain Score A. Find Row in Table C.

Scoring:
1 = negligible risk
2 or 3 = low risk, change may be needed
4 to 7 = medium risk, further investigation, change soon
8 to 10 = high risk, investigate and implement change
11+ = very high risk, implement change

B. Arm and Wrist Analysis

Step 7: Locate Upper Arm Position:

Step 7a: Adjust...
If shoulder is raised: +1
If upper arm is abducted: +1
If arm is supported or person is leaning: -1

Step 8: Locate Lower Arm Position:

Step 8a: Adjust...
If wrist is bent from midline or twisted: Add +1

Step 9: Locate Wrist Position:

Step 9a: Adjust...
If wrist is bent from midline: Add +1

Step 10: Look-up Posture Score in Table B
Using values from steps 7-9 above, locate score in Table B.

Step 11: Add Coupling Score
Well fitting handles and mid range power grip: good: +0
Acceptable but not ideal hand hold or coupling acceptable with another body part: fair: +1
Hand held not acceptable but possible: poor: +2
No handles, awkward, unstable with any body part, unacceptable: +3

Step 12: Score B, Find Column in Table C
Add values from steps 10 & 11 to obtain Score B. Find column in Table C and match with Score A in row from step 6 to obtain Table C Score.

Step 13: Activity Score
-1 1 or more body parts are held for longer than 1 minute (static)
-1 Repeated small range actions (more than 4x per minute)
-1 Actions causes rapid large range changes in postures or unstable base

Final REBA Score

Task name: _____ Reviewer: _____ Date: _____

provided by Practical Ergonomics
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RULA Employee Assessment Worksheet

A. Arm and Wrist Analysis

Step 1: Locate Upper Arm Position:

Step 1a: Adjust...
If shoulder is raised: +1
If upper arm is abducted: +1
If arm is supported or person is leaning: -1

Step 2: Locate Lower Arm Position:

Step 2a: Adjust...
If either arm is working across midline or out to side of body: Add +1

Step 3: Locate Wrist Position:

Step 3a: Adjust...
If posture mainly static (i.e. held > 1 minute), Or if action repeated occurs 4X per minute: +1

Step 4: Wrist Twist:
If wrist is twisted in mid-range: +1
If wrist is at or near end of range: +2

Step 5: Look-up Posture Score in Table A:
Using values from steps 1-4 above, locate score in Table A.

Step 6: Add Muscle Use Score
If load < 4.4 lbs. (intermittent): +0
If load 4.4 to 22 lbs. (intermittent): +1
If load 4.4 to 22 lbs. (static or repeated): +2
If more than 22 lbs. or repeated or shocks: +3

Step 7: Add Force/Load Score
If load < 4.4 lbs. (intermittent): +0
If load 4.4 to 22 lbs. (intermittent): +1
If load 4.4 to 22 lbs. (static or repeated): +2
If more than 22 lbs. or repeated or shocks: +3

Step 8: Find Row in Table C
Add values from steps 5-7 to obtain Wrist and Arm Score. Find row in Table C.

Task Name: _____ Date: _____

Task Name: _____ **Date:** _____

Scores

Table A

Upper Arm	Lower Arm	Wrist Score				
		1	2	3	4	
1	1	1	2	2	3	3
1	2	2	2	2	3	3
1	3	2	3	3	3	4
2	1	2	3	3	3	4
2	2	3	3	3	3	4
2	3	3	3	3	3	4
3	1	1	2	2	2	3
3	2	2	2	2	2	3
3	3	3	3	3	3	4
4	1	1	1	1	1	2
4	2	2	2	2	2	3
4	3	3	3	3	3	4
5	1	1	1	1	1	2
5	2	2	2	2	2	3
5	3	3	3	3	3	4
6	1	1	1	1	1	2
6	2	2	2	2	2	3
6	3	3	3	3	3	4

Table B

Wrist / Arm Score	Neck, Trunk, Leg Score					
	1	2	3	4	5	6
1	1	2	3	4	5	5
2	2	3	4	4	5	5
3	3	3	3	4	4	5
4	4	4	4	4	5	5
5	5	5	5	5	6	6
6	6	6	6	6	6	7
7	7	7	7	7	7	8
8	8	8	8	8	8	9
9	9	9	9	9	9	9

Table C

Neck Posture Score	Table B: Trunk Posture Score					
	1	2	3	4	5	6
1	1	1	2	2	2	2
2	2	2	3	3	3	3
3	3	3	4	4	4	4
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Table C

Wrist / Arm Score	Neck, Trunk, Leg Score
1	1 2 3 4 5 6 7
2	2 3 4 4 5 5 5
3	3 3 3 3 4 4 5 6
4	4 3 3 3 4 5 6 6
5	5 4 4 4 5 6 7 7
6	6 4 4 5 6 6 7 7
7	7 5 6 6 7 7 7 7
8	8 5 6 7 7 7 7 7

Scoring (final score from Table C)
1-2 = acceptable posture
3-4 = further investigation, change may be needed
5-6 = further investigation, change soon
7 = investigate and implement change

Step 9: Locate Neck Position:

Step 9a: Adjust...
If neck is twisted: +1
If neck is side bending: +1

Step 10: Locate Trunk Position:

Step 10a: Adjust...
If trunk is twisted: +1
If trunk is side bending: +1

Step 11: Legs:
If legs and feet are supported: +1
If not: +2

Step 12: Look-up Posture Score in Table B:
Using values from steps 9-11 above, locate score in Table B.

Step 13: Add Muscle Use Score
If posture mainly static (i.e. held > 1 minute), Or if action repeated occurs 4X per minute: +1

Step 14: Add Force/Load Score
If load < 4.4 lbs. (intermittent): +0
If load 4.4 to 22 lbs. (intermittent): +1
If load 4.4 to 22 lbs. (static or repeated): +2
If more than 22 lbs. or repeated or shocks: +3

Step 15: Find Column in Table C
Add values from steps 12-14 to obtain Neck, Trunk and Leg Score. Find Column in Table C.

RULA Score

Neck Score _____
Trunk Score _____
Leg Score _____
Posture B Score _____
Muscle Use Score _____
Force / Load Score _____
Wrist & Arm Score _____

based on RULA: a survey method for the investigation of work-related upper limb disorders, McAtamney & Corlett, Applied Ergonomics 1993, 24(2), 91-99

Worker's Compensation

What is the role of the Industrial Athletic Trainer in the WC Process?

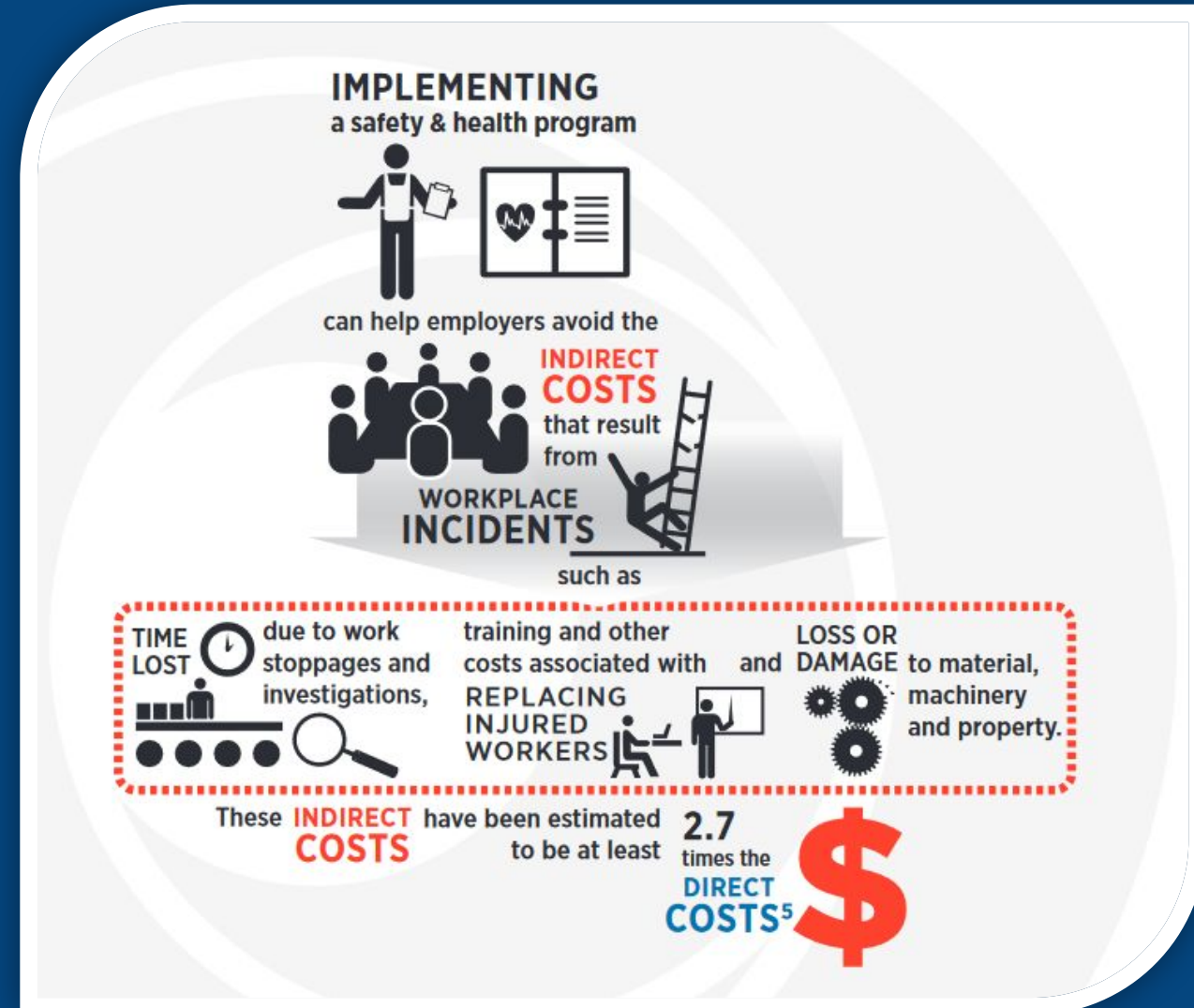
- Drive incident reporting
- Triage of injuries as they occur to determine severity
- Documentation for claims
- Education of the employee of the WC process
- Determining employee job functions within given restrictions



Benefits for the Employer

Why employers hire Industrial Athletic Trainers

1. Ensure proper safety procedures are followed in the workplace
2. Higher quality of care for onsite injuries
3. Elevated employee experience
4. Decreased WC claims and costs
5. Less employee time away from work and increased productivity
6. Faster injury response
7. Emergency action expertise
8. Critical thinking for metrics evaluation



Benefits for the Employee

Why employees love Industrial Athletic Trainers

1. Engagement
2. Education
3. Quality of evaluation and treatment
4. Mental health resource
5. Less time away from work
6. Health and Wellness Programs available



The Day-to-Day of the Industrial Athletic Trainer

- Employee engagement and education
- Injury evaluation, treatment and documentation
- Injury trend analysis and reporting
- Injury mitigation projects and initiatives
- Partnership with site teams and leadership
- Preventative ergonomic coaching and assessments
- Administrative tasks



Resources

Best Practices Guide: Fundamentals of a Workplace First-Aid Program. Occupational Safety and Health Association; 2006.
<https://www.osha.gov/sites/default/files/publications/OSHA3317first-aid.pdf>

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Callihan M, Leonard M. Training the Industrial Athlete: Targeted Exercises to Reduce Occupational Injury Risks. *Journal of Orthopaedics and Sports Medicine.* 2021;3(4):152-161. Accessed September 12, 2023.
<https://fortuneonline.org/articles/training-the-industrial-athlete-targeted-exercises-to-reduce-occupational-injury-risks.html>

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National Athletic Trainers' Association. 2021 Salary Survey. Accessed January 25, 2024.
https://www.nata.org/sites/default/files/nata_2021_salary_survey_subsections_report.pdf.

OSHA safety and Health Program Management Guidelines. Accessed January 25, 2024.
https://www.osha.gov/sites/default/files/SHPM_guidelines.pdf.

Questions?



Thank You



THANK YOU!