

# Teamwork Makes the Dream Work

Optimizing Performance through Interprofessional Collaboration Among  
Athletic Trainers, Physical Therapist, and Other Members of the Healthcare  
Team

# OBJECTIVES



- Describe the scope of practice for an Athletic Trainer and Physical Therapist
  - Variety of roles they can serve within a health care team.
- Identify ways that Athletic Trainers are utilized to extend the reach of a clinic and provide proper direction of care.
- Examine how Athletic Trainers and Physical Therapists work to help bridge the gap between patients and providers.



**NOW OPEN** *at the REC PLEX!*



# Disclosures

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Site Supervisor, Physical Therapist, and Head Athletic Trainer at the Rec Plex.


*I have no financial relationships to disclose.*

Intro  
Athletic Trainer  
Seth Light  
MSA, LAT, ATC

*I have no financial  
relationships to disclose.*



DES MOINES  UNIVERSITY



## Educational Requirements & Competencies

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- Undergraduate Requirements
  - Basic & Applied Sciences
  - Professional Content
  - Clinical Experience
- Graduate School
  - Masters in Athletic Training
- ATC credential via BOC
- Continuing Education





## Role of Athletic Trainer

- Athletic trainers collaborate with physicians to optimize patient activity, participation in athletics, work and life.
- Injury prevention
- Initial examination
- Diagnosis, referral, treatment, and rehabilitation
- Minimize subsequent complications

Front Line



# Clinical Efficiency

## Clinical Role

- Vitals & history
- Musculoskeletal exam
- Ordering imaging & labs
- Plan treatment
- Documentation

## Results

- Increase of 3 patients per day
- Decreased physician time
- AT present 24.8 min
- Without AT 24.5 min

	MA Time (min)	AT Time (min)	Physician Time (min)	Overall Time (min)
<b>Orthopedic</b>				
AT with physician	N/A	12.9	11.9	24.8
Physician with MA	5.5	N/A	19	24.5
<b>General Medicine</b>				
AT with physician	N/A	10.7	9.7	20.4
Physician with MA	5.5	N/A	13.3	18.8
<b>Overall</b>				
AT with physician	N/A	12.2	10.7	22.9
Physician with MA	5.5	N/A	16.1	21.6

Pecha et al, 2017

Medical Professionals	No. Patients Seen per Clinic Day	Time Documenting (min)	No. Charts Left to Dictate
AT with physician	24.2	28.5	7
Physician with MA	21.2	66	21

AT, athletic trainer; MA, medical assistant.

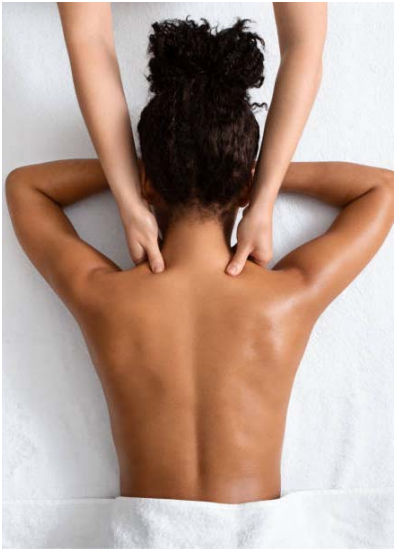
Pecha et al, 2017



# Athletic Trainer Work Settings



# **Bridging The Gap**



# Role of the Physical Therapist



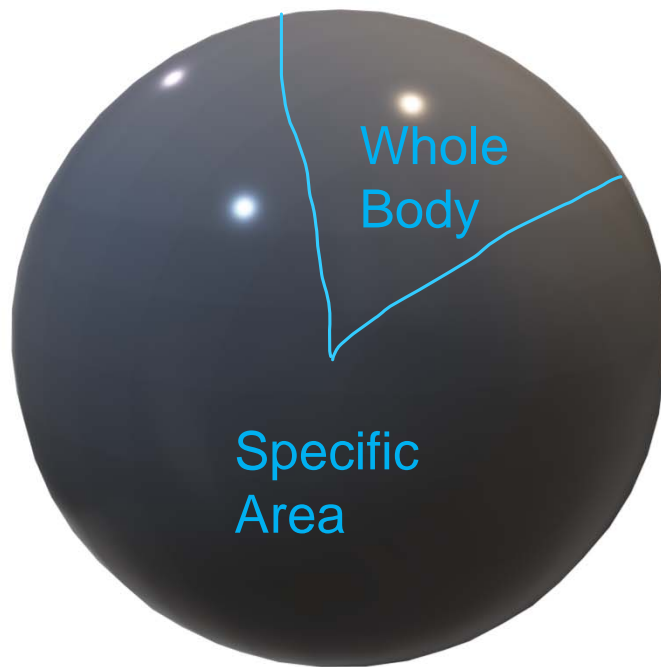
What is physical  
Therapy?



# What is Performance Training?

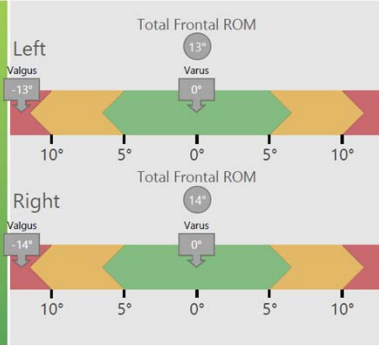


# Physical Therapy vs Performance Training



## Athletic Movement Index

### Single Leg Squat



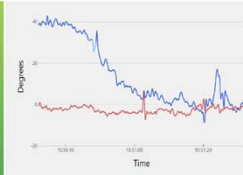
Score	
Left	Right
11	9
30	30

Left (Valgus/Varus)	
Speed	Tibial Inc.
22°/s	33°

Right (Valgus/Varus)	
Speed	Tibial Inc.
18°/s	30°

⚠ Loss of Balance (L)

## Athletic Movement Index

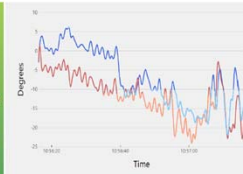


Score	
8	30

Flexion/Extension	
16sec	-47°

Rotation	
60sec	-7°

⚠ Failed Test!



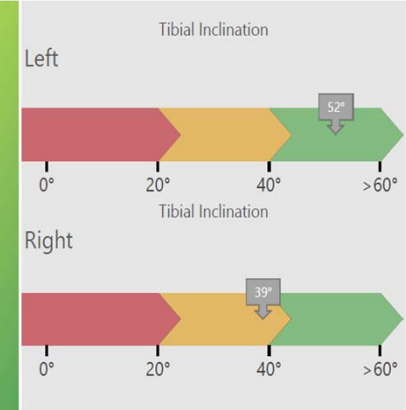
Score	
10	30

Lateral Flexion	
33sec	21°

Rotation	
27sec	-23°

⚠ Failed Test!

### Ankle Lunge



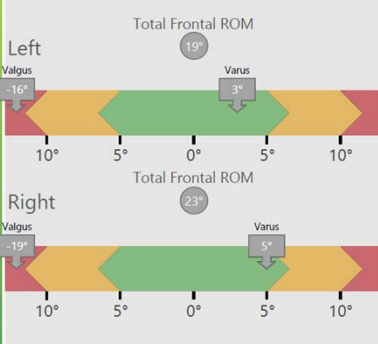
Score	
Left	Right
9	6
9	9

Left	
Tibial Inc.	
52°	

Right	
Tibial Inc.	
39°	

## Athletic Movement Index

### Single Leg Hop Plant



Score	
Left	Right
10	10
24	24

Left (Landing)	
Speed	Tibial Inc.
157°/s	35°

Right (Landing)	
Speed	Tibial Inc.
141°/s	28°

⚠ Loss of Balance (L)(R)

# Dorsa VI

# Benefits of Interprofessional Collaboration

Development of Personal Relationships

Optimizes health-services

Strengthens health systems

Improves health outcomes

Access to and coordination of health-services


Appropriate use of specialist clinical resources

Health outcomes for people with chronic diseases

Patient care and safety

Improves staff satisfaction

- Ensure your Starting Line Up: You've got the best Team
- Establish a Great Game Plan
- Coaching through out the POC
  - Phone calls / Conversations / Messages
    - Explain the Surgery
    - Discuss Pathology and Treatment
    - Give Updates, Progress Summary, Discuss Setbacks
    - Return to Play Testing Results
    - Opinions regarding readiness for RTP
    - Assessing patient's together or CoTx



How Can You  
Set Up Your  
Team for  
Success?



Dr. Bauman

# Interdisciplinary Approach

January 6, 2020

## Association of Time Since Injury to the First Clinic Visit With Recovery Following Concussion

Anthony P. Kontos, PhD<sup>1,2</sup>; Kendra Jorgensen-Wagers, PhD<sup>3,4</sup>; Alicia M. Trbovich, PhD<sup>1,2</sup>; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

*JAMA Neurol.* 2020;77(4):435-440. doi:10.1001/jamaneurol.2019.4552

**Table 4. Factors Significantly Associated With Recovery Time Groups, per Logistic Regression<sup>a</sup>**

Constant	Adjusted Odds Ratio	P Value
Late initiation of clinical care	5.8 (1.9-17.6)	.002
Visual motion sensitivity symptoms over clinical cutoff	4.5 (1.1-18.0)	.04

<sup>a</sup> The recovery time groups were those with 30 days or less or more than 30 days to recovery; the total group was 122 individuals.

# Interdisciplinary Approach

> [Int J Psychophysiol.](#) 2018 Oct;132(Pt A):93-98. doi: 10.1016/j.ijpsycho.2017.08.003. Epub 2017 Aug 14.

## Kinematic differences during a jump cut maneuver between individuals with and without a concussion history

Andrew P Lapointe <sup>1</sup>, Luis A Nolasco <sup>2</sup>, Aniela Sosnowski <sup>1</sup>, Eva Andrews <sup>1</sup>, Douglas N Martini <sup>3</sup>, Riann M Palmieri-Smith <sup>4</sup>, Deanna H Gates <sup>2</sup>, Steven P Broglio <sup>5</sup>

Affiliations + expand

PMID: 28818697 DOI: 10.1016/j.ijpsycho.2017.08.003

### Varus

Left:  $M_{conc} = -0.5 \pm 1.0^\circ$ ,  $M_{ctrl} = 3.6 \pm 1.0^\circ$

Right:  $M_{conc} = 5.1 \pm 1.2^\circ$ ,  
 $M_{ctrl} = 7.8 \pm 1.12^\circ$

### Valgus

Left:  $M_{conc} = 2.5 \pm 1.6^\circ$ ,  $M_{ctrl} = 13.0 \pm 1.5^\circ$

Right:  $M_{conc} = 7.7 \pm 1.6^\circ$ ,  $M_{ctrl} = 12.8 \pm 1.1^\circ$

suggestive of increased knee injury risk

> [J Orthop Sports Phys Ther.](#) 2018 Jul;48(7):533-540. doi: 10.2519/jospt.2018.8053. Epub 2018 May 8.

## Risk for Lower Extremity Injury After Concussion: A Matched Cohort Study in Soldiers

Joseph R Kardouni, Tracie L Shing, Craig J McKinnon, Dennis E Scofield, Susan P Proctor

PMID: 29739302 DOI: 10.2519/jospt.2018.8053

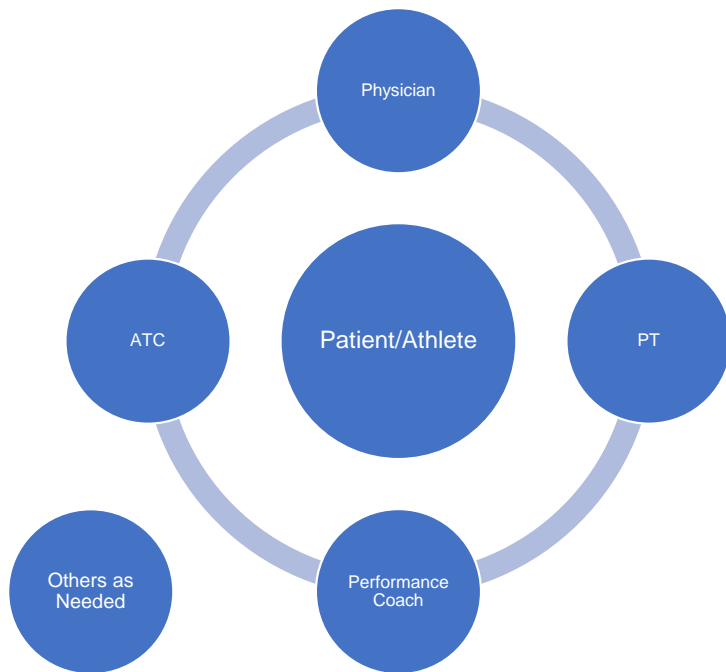
Injury within 2 years = 38% greater.  
Injury within 15 months = 45% greater



# Case Study: Interdisciplin ary Approach at the Rec Plex

- 15-year-old male, hockey player
- Competing, headfirst into the dasher board
- PMHX: Bilateral Patellar Tendonitis

# Action Steps



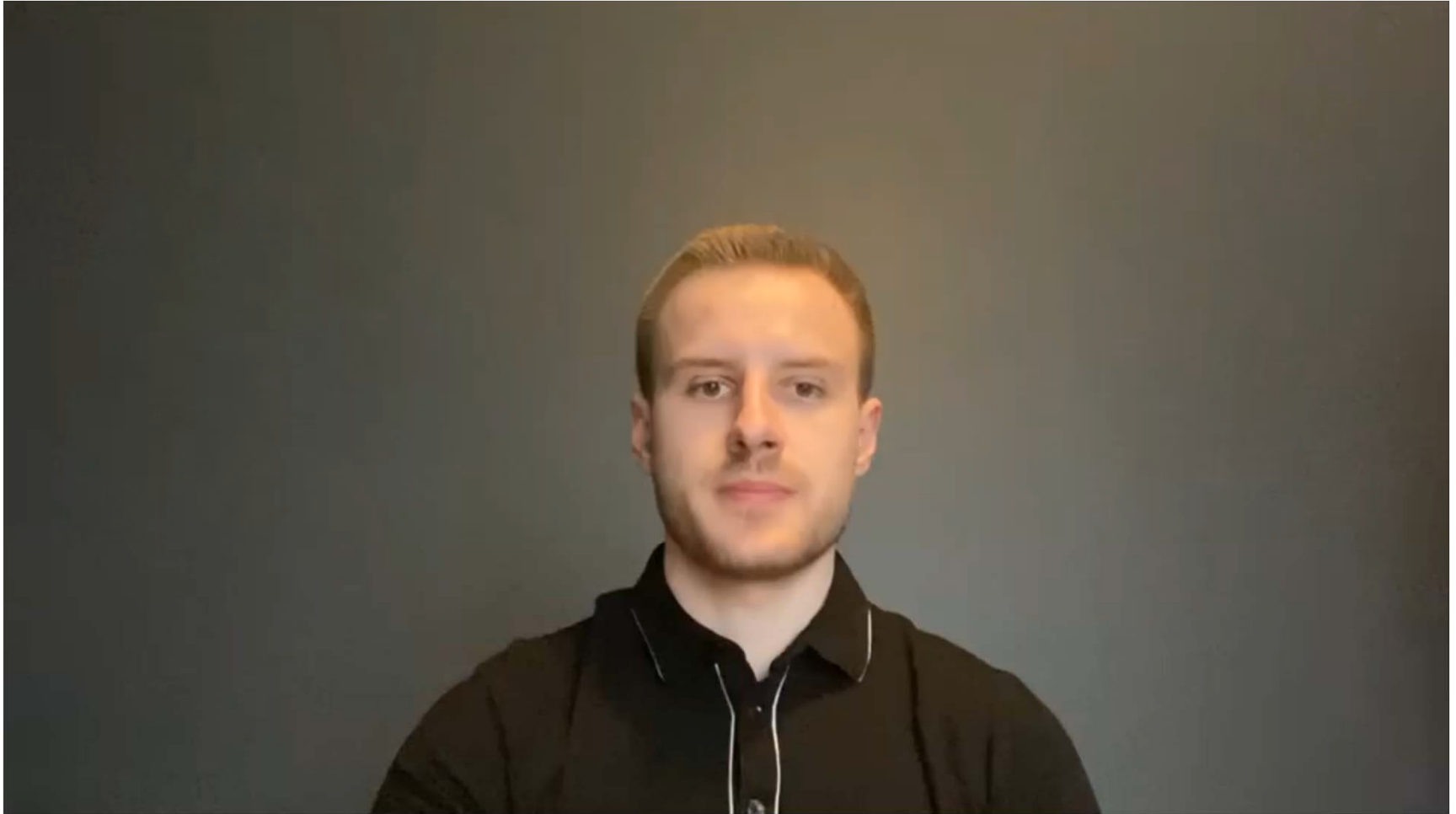
1.) On the field assessment by ATC

2.) Referral to Physician – Physician Assessment

3.) Referral to PT – PT Assessment

4.) Return to play gradual progression

5.) Integration of Performance Testing/Training



# Things People are Saying



I initially went to DMU inspired by their advertisement of run and/or bike analysis.

I limped into the clinic on day 1 struggling from a run injury. Currently, I am gaining strength and rebuilding skills that I lost while hurt, and through the years. The performance class has been a game changer for me as I improve on strength, balance, and flexibility. Something every age needs! I love the facility!

If you want to go fast, go alone.  
If you want to go far, go together.

--African Proverb



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- Education Overview. NATA. Published July 27, 2017. <https://www.nata.org/about/athletic-training/education-overview>
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- Kontos AP, Jorgensen-Wagers K, Trbovich AM, et al. Association of Time Since Injury to the First Clinic Visit With Recovery Following Concussion. *JAMA Neurol.* 2020;77(4):435–440. doi:10.1001/jamaneurol.2019.4552
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- Lapointe AP, Nolasco LA, Sosnowski A, et al. Kinematic differences during a jump cut maneuver between individuals with and without a concussion history. *Int J Psychophysiol.* 2018;132(Pt A):93-98. doi:10.1016/j.ijpsycho.2017.08.003