





Summer 2025



Tackle Techniques and Characteristics Associated With a Concussion in Tackling Players in the National Football League

<u>Christopher P. Sherwood, MS</u>, <u>Fintan Grogan, BS</u>, <u>Gregory Tierney, PhD</u>

American Journal of Sports Medicine March 4, 2025 Volume 53, Issue 5

Purpose:

To identify tackling techniques and characteristics associated with concussions to the tackling player.

Conclusion:

The less a tackler involved his helmet in a tackle, the lower his risk of sustaining a concussion. This study supports teaching players to place their heads on the correct side of the ball carrier (neither into the ball carrier nor into the path of the ball carrier) when tackling to reduce their risk of a concussion, and players should target the torso of the ball carrier as their primary contact point.

For a link to the full article, CLICK HERE!





The Effect of Body Mass Index on Outcomes of Isolated Medial Patellofemoral Ligament Reconstruction

Normal ACL

Torn ACL

David Gibbs, BS, David C. Flanigan, MD, and Robert A. Magnussen, MD,

Orthopedic Journal of Sports Medicine. May 20, 2025

Background:

The effect of body mass index (BMI) on complication risk, recurrent instability risk, and patient-reported outcomes (PROs) after surgical intervention for recurrent patellar instability is unclear.

Purpose/Hypothesis:

The purpose was to evaluate the differences in complications, recurrence, and PROs in obese and nonobese patients undergoing isolated medial patellofemoral ligament reconstruction (MPFLR). It was hypothesized that obesity is associated with increased complication risk, increased risk of recurrent patellar instability, and poorer PROs after MPFLR.

Conclusion:

No significant differences in complications or repeat dislocation risk after isolated MPFLR were noted based on BMI \geq 30 or <30 kg/m 2 . Patients with a BMI \geq 35 kg/m 2 demonstrated lower activity level, but no other differences in PROs compared with patients with a BMI <30 kg/m 2 .

Click HERE to read full abstract.

Sustained Clinical and Functional Outcomes After Primary Anterior Cruciate Ligament Repair: A Minimum 5-Year Follow-up Study

<u>Sebastian Conner-Rilk, MD</u>, <u>Gabriel C. Goodhart, BS</u>, and <u>Gregory S. DiFelice, MD</u> *American Journal of Sports Medicine, May 23, 2025*

Background:

Primary anterior cruciate ligament (ACL) repair (ACLPR) demonstrates promising short-term clinical outcomes in select patients; however, it remains poorly understood as to whether previously reported short-term outcomes are maintained at midterm follow-up.

Purpose:

To determine whether short-term (2-year) outcomes are maintained at 5 years after ACLPR, evaluate age-stratified failure and reoperation rates, and identify

preoperative risk factors for failure.

Conclusion:

Sustained clinical and functional outcomes for ACLPR were observed between short-term and midterm follow-up, with failure rates of 11.5% and 15.9%, respectively. Although younger age was an important risk factor for ipsilateral ACL failure, with a high failure rate of 37.0% in patients aged ≤21 years at short-term follow-up, no additional failures were observed at midterm follow-up. In contrast, patients aged >21 years experienced modest failure rates, increasing from 3.5% at short-term follow-up to 8.6% at midterm follow-up, with no significant change. Click HERE for a link to the abstract.

Long-term Prognosis of Athletes With Patellar Tendinopathy Receiving Physical Therapy: Patient-Reported Outcomes at 5-Year Follow-up

<u>Jie Deng, MD, Jelle J. Oosterhof, MD</u>, and <u>Robert-Jan de Vos, MD, PhD</u> *American Journal of Sports Medicine. May 12, 2025*

Background:

Patellar tendinopathy (PT) is a highly prevalent injury among jumping athletes. The long-term prognosis of athletes with PT following physical therapy is unknown.

Purpose:

To assess self-perceived recovery rate and the 5-year change in pain levels, disability, and sports participation, and to explore the prognostic factors associated with self-perceived recovery.

Conclusion:

Athletes with PT after physical therapy can expect a generally acceptable long-term prognosis. However, almost one-quarter did not feel recovered and perceived worse patient-reported outcomes. Clinicians treating athletes with PT may use these findings to estimate the average prognosis.

Click HERE for a link to the abstract.

Doctor when can I drive? A systematic review and meta-analysis of brake reaction time in patients returning to driving after hip arthroscopy for femoroacetabular impingement (FAI)

Ravi Patel, Balamrit Singh Sokhal, and Rajpal Nandra HIP International. February 24, 2025

Background:

A common question from patients undergoing hip arthroscopy for femoroacetabular impingement (FAI) is when they may return to driving.

Conclusions:

BRTs returned to baseline or control values and continued to improve 4 weeks post-surgery for FAI. It is safe to recommend a return to driving at 4 weeks after hip arthroscopy for FAI.

Click <u>HERE</u> for a link to the abstract.

The Role of PT in Overuse Injuries in Athletes on and off the field

By: Shelly Deutmeyer, PTA

Scenario #1: High school athlete who is the quarterback on the football team as well as pitcher on the baseball team. After a successful season on the football field ends in November, he started throwing in January in preparation for the upcoming baseball season. Within 1-2 weeks of starting baseball games, he's complaining of ongoing shoulder soreness of which ice and ibuprofen is not helping.

Scenario #2: Local factory worker has been employed for 20 years. For the last year, he/she has been performing the same job on an assembly line and also stacking finished parts in overhead bins. He/she has been recently having shoulder soreness that worsens by end of the week and is starting to interrupt his/her sleep.

Both of these scenarios paint the classic picture of an overuse injury. Overuse injuries occur due to repetitive stress without adequate recovery. Common among:

- Athletes: tendonitis, tendinopathy, stress fractures, bursitis, shin splints.
- **Industrial workers**: carpal tunnel syndrome, rotator cuff injuries, low back pain. These injuries are very commonly seen in PT and can be effectively treated, especially if they are caught early.
- Goals of Physical Therapy
 - 1. Pain reduction
 - 2. Restore function and mobility

3. Prevent recurrence

4. Correct biomechanical faults

Regardless of whether we are working with a high school athlete, industrial/factory worker or others with overuse injuries, the PT goals are all the same. If we can decrease pain, and restore full strength and motion then they start to feel better. We then start to address issues that may be causing some of the pain such as the athletes body mechanics while training or even the work station set up in the factory so that we reduce the chances of the injury happening again.

What happens to the muscles in overuse injuries?

Many assume that overuse injuries always correlate with inflammation. They've overused the muscles repeatedly in sport or at work, causing inflammation and pain. Even though that is the case SOME of the time, more often than not it's a degeneration of the tissue that causes the pain.

So how exactly does tissue degenerate, or break down? After a workout, two processes are happening within the muscles at the same time - protein synthesis (new muscle building) and collagen degradation (muscle breakdown). After an intense workout, muscle breakdown happens faster than muscle building, leading to muscle (tissue) degeneration. The muscle must be given time to rest in order for the it to heal from the workout (return to a net gain of protein synthesis), make up for the muscle degeneration, and avoid an overuse injury.

Patients treating overuse injuries on their own often work through the pain. When that doesn't work, they use complete rest, ibuprofen and ice. When the muscle or joint feels better, they return to run/work and the pain returns again, unfortunately, the cycle starts all over again. Now, lets see how physical therapy can help break the cycle and help individuals with overuse injuries.

Physical Therapy Treatments

- 1. Eccentric loading of the tendon tissue is emphasized in sports and occupational rehab (Hameed et al., 2023).
- 2. Additional options of Astym, Bloodflow restriction, Dry needling
- 3. Ergonomic or technique modifications
- 4. Look at joints above/below affected joint
- 5. Look at the whole picture assessing sleep and nutritional habits.

The emphasis of appropriately treating overuse injuries in physical therapy is through eccentric loading of the tendon followed by appropriate rest. To eccentrically load a muscle means that the muscle has to control the weight as it moves in a downward motion. This means that the muscle is lengthening while under load. Physical therapy provides clinic and home-based targeted exercises, patient education focused on sleep and nutrition, and activity modification to promote rest while remaining active to ensure the overuse injury heals properly.

Body mechanics above and below the injury can also play a role in muscle degeneration and overuse injuries. Weak or tight muscles above or below the injury causes inefficient or incorrect movement patterns, often leaving the injured area working harder and compounding muscle degeneration. For example, the factory worker with an injured shoulder may have tight or weak muscles in their neck or shoulder blade, making their shoulder muscles work harder. Weak core muscle are often found with overuse injuries as well. Physical Therapy focuses on recognizing muscle imbalances that cause overuse injuries, strengthening weak muscles, and decreasing tension in tight muscles to improve body mechanics in sport or on the job.

In summary:

- 1. Complete rest is not always the best answer. It's OK to work the muscle as long as it's in the correct way and with the appropriate amount of rest time.
- 2. Look regionally to joint above/below as well as core strength/stability.
- 3. Look bigger at the whole person: what's their daily routine look like including sleep and nutritional habits.

Sources:

- 1. Role of strengthening exercises in management and prevention of overuse sports injuries of lower extremity: a systematic review. Journal of Sports Med Phys Fitness, IqraHameed et,al 2024
- 2. Are you Missing out on the latest treatment for overuse injuries? Medbridge podcast 12/13/2024.

Summertime at PTS

Summer Interns:

Dyersville: Naomi Murphy. Currently attending Beloit College. Future plans: PT school Manchester: Zayden Steven. Currently attending Iowa State. Future plans: PT school Dubuque Barn: Caitlin Jensen. Currently at Univ. of Dubuque. Future plans: PT school Dubuque Downtown: Chloe Reiser. Currently attending University of Dubuque. Future plans: PT school.

Summer PT/PTA Students:

Dyersville: Emilie Vaske, SPT at University of Iowa. Hometown: Dyersville, IA. Dubuque: Brad Barkema, SPT at Univ. of Iowa. Hometown: Conrad, IA. Dubuque: Sophia Heisler. SPT at Univ. of Iowa. Hometown: Galena. IL.

Manchester: Sydnee Becker, SPTA at Kirkwood C.C. Hometown: Strawberry Point, IA



Congrats Newlyweds!!

Nick Steger, DPT at our Dyersville clinic, was recently married to Molly Walkner in May. We wish them many years of happiness...and Leroy too!

Text Link



EMPLOYEE SPOTLIGHT

1.Tell us a little bit about yourself and what you do. I was born and raised in Manchester, graduated from West Delaware in 2015, Coe College with my bachelor's in athletic training in 2019 and wrapped up my schooling at Kirkwood for PTA in 2021. I am currently the PTA for our Manchester location helping patients return to their pain-free lifestyle every day.

2. What do you enjoy doing when not at work? When I am not at work, my husband and I spend our time at our farm, we just wrapped up our calving season in May and working on one of our show heifers for the fair in July. Outside of the farm I enjoy spending time with my 5 nieces and nephews, family and friends.

Our favorite thing to do on the weekends is to go listen to live local country music at local bars and restaurants.

3. How do you prefer to stay active?

I enjoy staying active with anything outdoors, early mornings before work I will take a run with my dalmatian dog, Hazel. I walk at our lunch break with my mom and then again after work before we begin chores at the farm. This summer I plan to participate in Ragbraii in July and then the Hero Hustle again in late August.

4. What is one random fact about yourself?

I am a fraternal twin; I consider her my built-in best friend. We are still very close and now I get the pleasure of being her daughters godmother and was able to watch her grow into the phenomenal mom she is.

Pelvic Health Power

Women's Wellness Night: Pelvic Floor 101



WHO: PTS is hosting a *FREE* class on pelvic floor health! Presentor: Amber Cooksley, DPT and Danielle Brachman, DPT, PT, OCS, FAAOMPT
WHAT: Women's Wellness Night: Pelvic Floor 101
WHEN: Wednesday, July 9 6pm-7pm
WHERE: Downtown Dubuque Clinic (245 Railroad Ave)
WHY: to provide education to community members about the "who, what where, when and why" of women's pelvic floor and pelvic floor therapy!

therapy!

PLEASE RSVP to Abby at 563-875-8615!

Moderate Exercise to Reduce Job Burnout

health.com September 2024

A study published in the Journal of Occupational and Environmental Medicine found that employees who engaged in moderate physical activity experienced less emotional exhaustion and a greater sense of personal accomplishment compared to those with low or high activity levels. Encouraging moderate exercise in the workplace can enhance employees' mental and physical health.

The "15 Minute Challenge"

thesun.co.uk August 2024

The '15 Minute Challenge': A workplace wellness program designed to increase physical activity by encouraging participants to engage in 15 minutes of exercise daily. Conducted across 73 companies in Australia, New Zealand, and the UK, the study involved 11,575 participants, 95% of whom met or exceeded physical activity guidelines. Reported improvements included better fitness, energy levels, sleep quality, and overall mood.

Understanding ADHD and your Employees wellmark.com May 12, 2025

With an uptick of adult ADHD diagnoses, it's likely you have employees with ADHD in your workplace. Learn more about this condition and how you can support employees who have it.

Despite its increasing prevalence, ADHD is challenging to diagnose — especially in adults — because there is no lab test to identify it. In addition, the diagnostic criteria for ADHD were developed for children. Adults with ADHD often have other behavioral conditions like depression, anxiety and substance use disorders that mask or mimic symptoms associated with hyperactivity. As a result, many adults don't realize they have ADHD. Click **HERE** to learn about the 3 different types of ADHD and how to best manage them in the workplace.

June is National Safety Month!

Upcoming safety educational opportunities near us for the remainder of 2025:

- 1. Hawkeye on Safety: September 4th, 2025
- 2. Midwest Women in Safety Conference: October 16th, 2025.
- 3. NICC Safety Conference: December 10th, 2025



PTS is expanding it's downtown location! New construction has begun and the clinic will be located just down the street from it's current location on Railroad avenue. The new clinic will be at the corner of Camp St. and Harrison St. near Hy-Vee. Once the new clinic is complete, we'll continue to operate out of both our new downtown location as well as the North Cascade Road location to serve you even better. We hope to open January 2026, so stay tuned!!



Know Your Facts

- 35: Overexertion and bodily reaction account for 35% of nonfatal workplace injuries. ~ National Safety Council
- 36: People from the millennial generation were born between 1981–1996 make up 36% of the workforce. ~wellmark.com
- 92: % of American workers who say their physical work space is lacking and mental well-being productivty is suffering. ~Nationalbusinessfurniture.com
- 1/3: of workers compensation costs attributed to musculoskeletal disorders. ~ergo-plus.com

61: % of workers with adjustable desks believe the change improved their health outside of the office. ~advisory.com

86: % of American workers who are sitting all day at work leading to higher rates of musculoskeletal disorders, obesity, diabetes, cancer, heart disease and more. ~businessinsider.com



Physical Therapy Solutions Injury Prevention Program

With rising costs of healthcare for both employees and employers, we at Physical Therapy Solutions have been looking for ways to help reduce these costs for everyone involved. For the past year, PTS has joined forces with a local industry to provide onsite injury prevention services. As a result of these efforts, this company has seen some dramatic results:

- 90.9% reduction in recordables from 2023 to 2024 as they went from 22 recordables in 2023 to 2 in 2024.
- 75.6% reduction in personal insurance spending.

If you would like to learn more about the PTS Injury Prevention Program, please contact Abby Moore at the Dyersville clinic. 563-875-8615.







Jesse Boge

Jesse is our new Patient Care
Representative at the
Manchester Clinic. She grew up
in Dyersville and graduated from
Beckman Catholic High School.
She has lived in Manchester for 8
years with her husband Mitchell
and two children Max and Bailey.
They also have two dogs Rex and
Tipper, and a Cat named Spooky.
As a family they love the outdoors
and watching their kids play
sports.

Jackie Timp, DPT

Jackie was born and raised in Dubuque, Iowa, and attended Wahlert High School. She received her Bachelor of Arts Degree in Neuroscience and Exercise Science from Wartburg College in 2022. While at Wartburg College, Jackie competed in track and field. She then attended Des Moines University and completed her Doctorate in Physical Therapy. Jackie enjoys working with a variety of patients with orthopedic and neurological deficits. Given her athletic background, she has a special interest in working with sports and athletic injuries, injury prevention, and improving health and wellness. Jackie plans to get dry needling certification within the next year. Outside of work, she enjoys exercising, hiking, and spending time with family and friends. She is very excited to join the Dubuque PTS team and help you achieve your goals!



EMPLOYEE SPOTLIGHT

Ashley Rau, PTA
Physical Therapist Assistant:
Manchester Clinic

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Meet Our Staff!



Jason Putz, PT
Owner



Ted Kruse, DPTDyersville



Nick Steger, DPT

Dyersville



Shelly Deutmeyer, PTA

Dyersville



Jill Heiderscheit Billing Specialist Dyersville

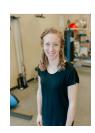


Barb Kluesner
Patient Care Coordinator
Dyersville



Josiah, Polito, DPT

Manchester



Danielle Brachman, DPT
Manchester



Lucas Fangmann, DPT
Manchester



Michelle Connor, PTA
Manchester



Alden Aaberg
Patient Care
Coordinator Dubuque

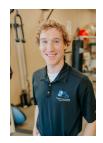


Ashley Rau, PTA Manchester



Wes Wedewer, DPT

Dubuque



Brad Mensen, DPT
Dubuque



Lonna Edwards
Patient Care Coordinator
Dubuque



Colin Connelly, DPT
Dubuque



Morgan Dunahoo, DPT
Dubuque



Justina Templeton, PTA
Dubuque



Amber Cooksley, DPT
Dubuque



Katie Jarosz, DPT

Dyersville



Abby MoorePatient Acquisition
Specialist Dyersville



Jackie Timp, DPTDubuque