



Safety Initiatives and the Jockey





Welfare & Safety of the Racehorse Summit VIII



Dr. Kelly Ryan

Primary Care Sports Medicine

MedStar



Knowledge and Compassion
Focused on You

Sports Medicine Model at the Racetrack



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Objectives

- To discuss updates Sports Medicine Model and our program in Maryland
- To discuss RETURN TO RIDE management
- To discuss ways other tracks around the country can reproduce our Sports Medicine Model

August 3, 2018

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WHAT WE DO BEST...



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What is a “Sports Medicine Physician”

Sports Medicine Model

- A physician with specialized training who promotes lifelong fitness and wellness, and encourages prevention of illness and injury. This physician helps the patient to maximize function and minimize disability and time away from sports, work, or school.
- Sports medicine team, includes specialty **physicians** and surgeons, **athletic trainers**, **physical therapists**, **coaches**, other personnel, and of course the **athlete**



MedStar
Sports Medicine

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Leading Sports Medicine into the Future

Knowledge and



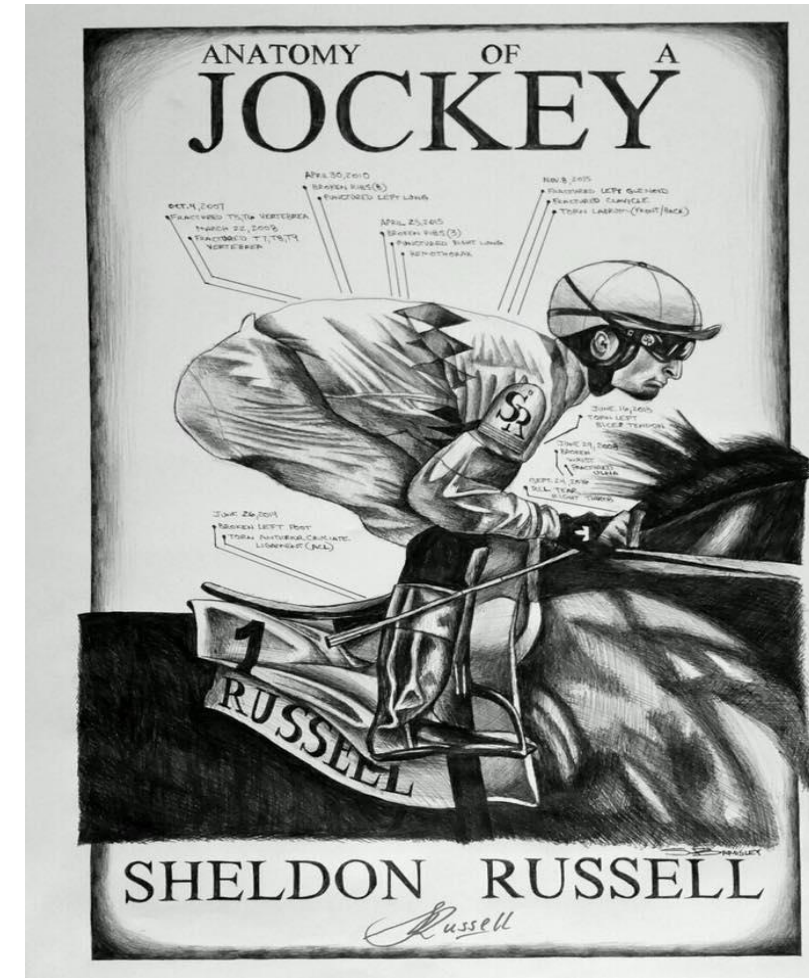
Sports Medicine Physician

- Pre-participation physical examination
- Injury assessment and management
- Care of sports-related and general medical needs of athletes
- Sports psychology issues
- Addressing substance use
- Education and counseling on illness & injury prevention
- Communication with stewards, clerk of scales, administration, as well as athletes and their families

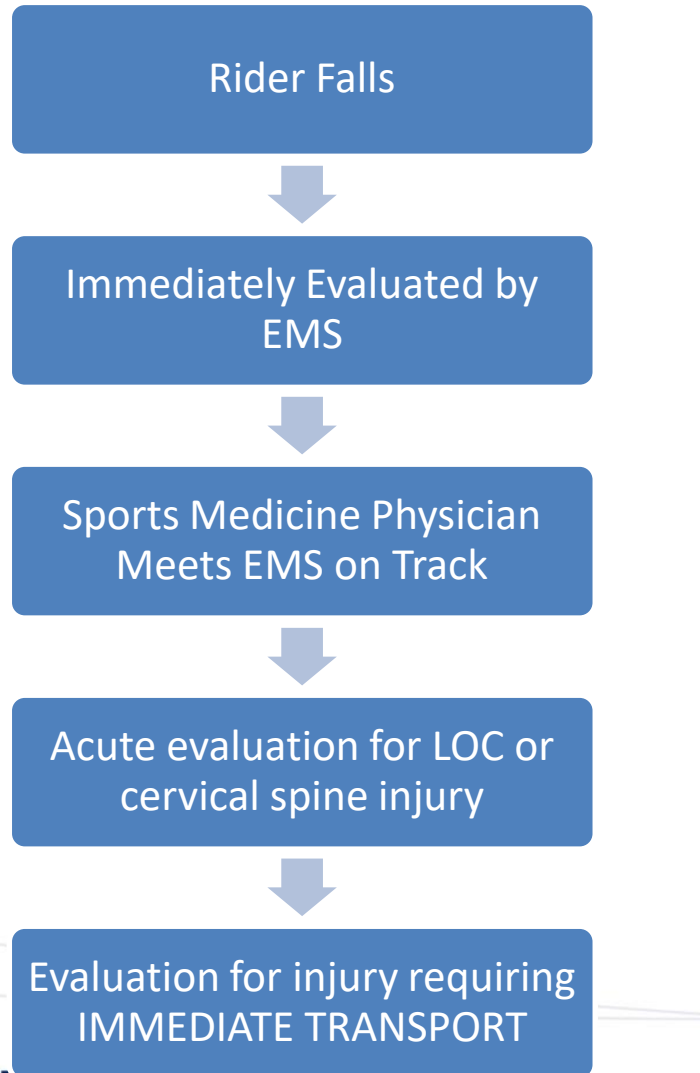


Injury Management

- Onsite evaluation of almost any injury or illness, acute or chronic
- Quick yet thorough evaluation of injuries sustained from riding, being thrown from horse, injuries in the gate, horse bites etc.
- Specialized in evaluating athletes
- Able to provide support to athlete to get them through their race, while ensuring their safety and safety of other riders
- The goal of Sports medicine providers is to **get you back to riding safely** and as pain free as possible to maximize your performance
- Counseling of ways to improve and shorten duration of injury
- Coordination of care with medical management, therapy, and if needed surgical care
- On site follow up of injuries, and most importantly clearance to return to ride



Recognizing – On Site Evaluation



Indications for Emergency Management

NOTE: A hit to the head can sometimes be associated with a more serious brain injury. Any of the following warrants consideration of activating emergency procedures and urgent transportation to the nearest hospital:

- Glasgow Coma score less than 15
- Deteriorating mental status
- Potential spinal injury
- Progressive, worsening symptoms or new neurologic signs

III. Indications: Closest hospital emergency department that can manage Trauma (Levels I to IV)

- A. EMS provider judgement
- B. EMS Criteria based on Mechanism of injury
 1. Falls
 - a. Adult: >20 feet (2 stories)
 - b. Child: >10 feet or fall from more than twice the height of the child
 2. High-risk motor vehicle accident
 - a. Intrusion into passenger compartment (including roof) >12 inches
 - b. Ejection from vehicle (even if partial ejection)
 - c. Death in same passenger compartment
 - d. High risk of injury based on vehicle telemetry data
 - e. Motor vehicle versus pedestrian or bicyclist (thrown, run over or with impact at >20 MPH)
 - f. Motorcycle accident at >20 MPH



Recognize



Follow up

Hold placed on Jockey until further evaluation

Records reviewed by Track Physician

Re-evaluated in Jockeys Room

Coordinate care of physical therapy or surgeon if needed.

Jockey Return to Ride and wins lots of races!!!



Dr. Kelly Ryan works at her desk in the Laurel Park medical clinic.

Maryland Racing

Sept 2015-Oct. 2017



Days of Racing	311
Races	2,965
Mounts	25,437
Jockeys in Winter Meet	99
Jockeys in Summer Meet	91

Injury Reports	91
Number of Significant Falls	35
Number of Falls with Multiple Riders	3

On-Site Care	69
Ambulance Transports	6
Other Care	17

Head Injuries	12	13.2%
Concussions	4	4.4%

During Race	74	81.3%
Gate	14	15.4%
Other	2	2.2%
Paddock	1	1.1%
Path	1	1.1%

Rate of Falls/100 Races	1.18
Rate of Injuries/100 Races	3.07
Rate of Concussions/100,000	15.73

Concussion Evaluation

Why do we care????

- Concussions are a chemical imbalance in your brain caused by injury
- Concussions cause
 - Balance problems
 - Change in vision and ability to focus
 - Difficulty concentrating
 - Difficulty with depth perception



May 2016

Vol. 26 • Number 5

Concussions- A Major Focus Of New Horsemen's Health System

Dr. Kelly Ryan, DO

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Difficulty with Diagnosis

- Confusion

- “From my experience, you don’t really know you have a concussion until you have a concussion, you think you’re fine; they

LIMITED AMOUNT TIME

**HIGH
PRESSURE
SITUATION**

ADRENALINE RUSH

- The goal of concussion diagnosis is to educate the rider they do not feel like you’re fine and you’re going to ride a horse. The goal of concussion diagnosis is to educate the rider they do not feel like you’re fine and you’re going to ride a horse. The goal of concussion diagnosis is to educate the rider they do not feel like you’re fine and you’re going to ride a horse.
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SCAT5[®]

SPORT CONCUSSION ASSESSMENT TOOL — 5TH EDITION

DEVELOPED BY THE CONCUSSION IN SPORT GROUP
FOR USE BY MEDICAL PROFESSIONALS ONLY

supported by



FIFA[®]



FEI

The SCAT5 currently represents the most well-established and rigorously developed instrument available for sideline assessment

The sideline evaluation is based on:

- Recognition of injury
- Assessment of symptoms
- Cognitive and cranial nerve function
- Balance.



Baseline testing may be useful, but is not necessary for interpreting post-injury scores

Head Injury at the Track



Maryland Horse[®]

- Any rider that sustains a significant fall or head injury will be evaluated on site by our track physician
- If there is any suspicion or signs that a rider has sustained a concussion, they will be held from riding and needs further evaluation by someone who specializes in concussion management.
- After significant falls riders need to consider replacing helmet, regardless of concussion

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Jockeys' Guild Assembly: Diagnosis, Management Of Head Injury Still Challenging

by Natalie Voss | 12.14.2016 | 11:55am



Healthy as a horse

*MedStar doctors bring top-notch care
to Maryland jockeys, backstretch workers*

By Sandra McKee. Photographs by Jim McCue



BLOODHORSE
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LEGENDS
RE-DEFINING WHAT HORSE FEED SHOULD BE
SOUTHERNSTATES.COM/LEGENDS

Guild Aims for Uniform Medical Oversight

By Frank Angst | @BH_Fangst | December 12, 2016 5:29 PM | Thoroughbred Racing



'They Just Want To Ride': Small Changes In Scale Of Weights Have Big Impact On Jockeys' Health

by Natalie Voss | 02.08.2017 | 11:53am



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NEWEST ADDITION to our Program....

As part of new jockey licensure jockey will meet with meet with physician and get

- Pre-participation physical
- Baseline SCAT 5 testing
- Watch jockey concussion video

August 3, 2018
https://youtu.be/ZtXeyJAdK_E

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- Sign concussion awareness form



CONCUSSION

A MUST READ FOR MARYLAND RIDERS

WHAT SHOULD I DO IF I THINK I HAVE HAD A CONCUSSION?

1. **REPORT IT.** Never ignore symptoms even if they appear mild. Look out for your fellow jocks. Tell your Race Track Physician if you think you or another rider may have a concussion.
2. **GET CHECKED OUT.** Your team medical staff has your health and well being as its first priority. They will manage your concussion according to best practice standards which include being fully asymptomatic, both at rest and after exertion, and having a normal neurologic examination, normal neuropsychological testing, and clearance to play by the team medical staff.
3. **TAKE CARE OF YOUR BRAIN.** According to the CDC, "traumatic brain injury can cause a wide range of short or long term changes affecting thinking, sensation, language, or emotions." These changes may lead to problems with memory and communication, personality changes, as well as depression and the early onset of dementia. Concussions and conditions resulting from repeated brain injury can change your life and your family's life forever.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT YOUR MEDICAL STAFF

In order to insure a safe return to ride, your race track physician will guide you through a Return to Ride Protocol. It is a protocol made of 5 steps that makes sure that your brain recovers appropriately. These steps may vary slightly, but essentially after you are symptom free for 24-72 hours, depending on severity, you may start return to ride protocol.

Phases:

1. 15 minutes light cardio exercise and then progress to 30 minutes
2. 30 minute simulated ride
3. 30 minute mounted individual trot
4. Individual Gallop/simulated Race speed
5. Return to racing (Jockeys Only)

*Rider must be examined by Track physician prior to step 1 and step 4 or

Adapted from www.cdc.gov/Concussion. For more information about concussion, please visit www.cdc.gov/Concussion

I _____ have read and understood this concussion form that is presented to me today. I am aware that at the conclusion of reading this form that I have the opportunity to ask the medical staff any questions/concerns I may have.

Signature

Date

August 3, 2018

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PHYSIOLOGICAL DEMANDS OF FLAT HORSE RACING JOCKEYS

SARAHJANE CULLEN,^{1,2} GILLIAN O'LOUGHLIN,² ADRIAN MCGOLDRICK,² BARRY SMYTH,¹
GREGORY MAY,³ AND GILES D. WARRINGTON¹

¹Applied Sports Performance Research Group, School of Health and Human Performance, Dublin City University, Dublin, Ireland; ²The Turf Club, The Curragh, Co., Kildare, Ireland; and ³Cognitive Motor Function Research Group, School of Healthcare Science, Manchester Metropolitan University, Manchester, United Kingdom

“...emphasize the importance of aerobic and anaerobic fitness for flat jockeys”

Based on results of this study, suggested training for jockeys includes high-intensity interval training sessions to optimize aerobic and anaerobic capacities.

Return to Ride (RTR) workout for jockeys focuses on high-intensity interval training to maximize aerobic and anaerobic fitness.

Return to Ride (RTR)

- Athletes are progressed through RTR protocol in steps, continuing to the next level only if experiencing no symptoms at the current level for at least 24 hours.
- Under normal conditions, the RTR protocol will take ~1 week to complete.
 - However, if athlete has concussion symptoms, RTR will take longer as athlete cannot progress to next level unless asymptomatic

RTR PROGRESSION

Return to Ride Communication Tool

STAGE 1: No sporting activity	STAGE 2: Light aerobic exercise	STAGE 3: Sport-specific exercise	STAGE 4: Noncontact drills	STAGE 5: Full-contact practice	STAGE 6: Return to Competition:
Symptom-limited physical and cognitive rest	Walking, swimming, stationary cycling, 15-30 minutes No resistance training. Heart rate < 70%	Jump Rope/Squat Jump Jumping Jacks Box Jumps/Step Ups Burpees/Lunge Jump Mountain Climbers Bicycle Circles Pushups Heart Rate 80-100% at 2-3 minute intervals, with 2-3 minute rest. No head-impact activities.	Equicizer: 30 sec on/off 1 min on/off 1.5 min on/off 2 min on/off Max Heart Rate May start resistance training.	Following medical clearance, participating in galloping and breezing	Medical clearance will be determined by team physician
Recovery	Increase heart rate	Add movement	Exercise, coordination, cognitive load	Restore confidence; assess functional skills	
Symptom-free for 24 hours? Yes: Begin Stage 2 No: Continue resting. Time and date completed: _____ _____ _____ _____	Symptom-free for 24 hours? Yes: Move to Stage 3 No: Return to Stage 1. Time and date completed: _____ _____ _____ _____	Symptom-free for 24 hours? Yes: Move to Stage 4 No: Return to Stage 2. Time and date completed: _____ _____ _____ _____	Symptom-free for 24 hours? Yes: Move to Stage 5 No: Return to Stage 3. Time and date completed: _____ _____ _____ _____	Symptom-free for 24 hours? Yes: Return to play No: Return to Stage 4. Time and date completed: _____ _____ _____ _____	

If symptoms reappear at any stage, go back to the previous stage until symptom free for 24 hours. You may need to move back a stage more than once during the recovery process.

Medical clearance required before moving to Stage 5



BC INJURY research and prevention unit

15-MJN-1357-002015



Profile of Athletic Trainers

Athletic Trainers (ATs) are health care professionals who collaborate with physicians. The services provided by ATs comprise prevention, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. ATs work under the direction of physicians, as prescribed by state licensure statutes.



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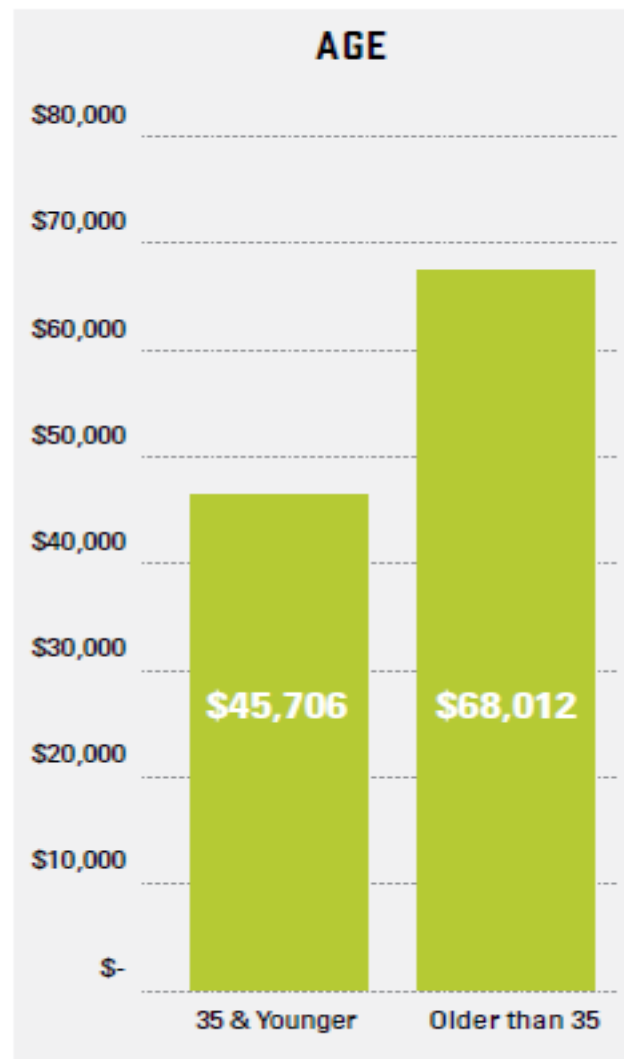
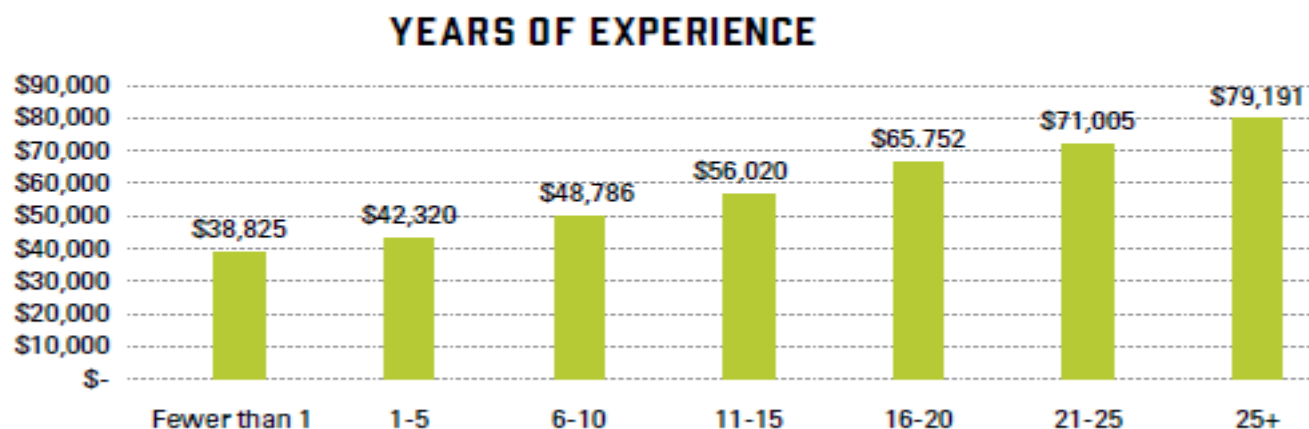
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SALARY SURVEY RESULTS

The average annual income for an athletic trainer was \$54,832 in 2016. Keep reading to see how salaries were affected by level of education, age, gender, ethnicity, location and more.

The following figures represent annual income for full-time positions only and do not include bonuses or benefits.

 HIGHEST LEVEL OF EDUCATION	 AVERAGE ANNUAL INCOME 2016
Bachelor's Degree	\$ 48,498
Master's Degree	\$ 54,695
Doctorate	\$ 81,921



The Sports Medicine Model of Care for Your Occupational Athlete

“While the objective of any sports medicine program remains the immediate, accurate and appropriate medical care of those injured in physical activity, it is the end result that has caught the eye of every CEO and CFO, which is the significant reduction of workers’ compensation costs and improved employee productivity.”

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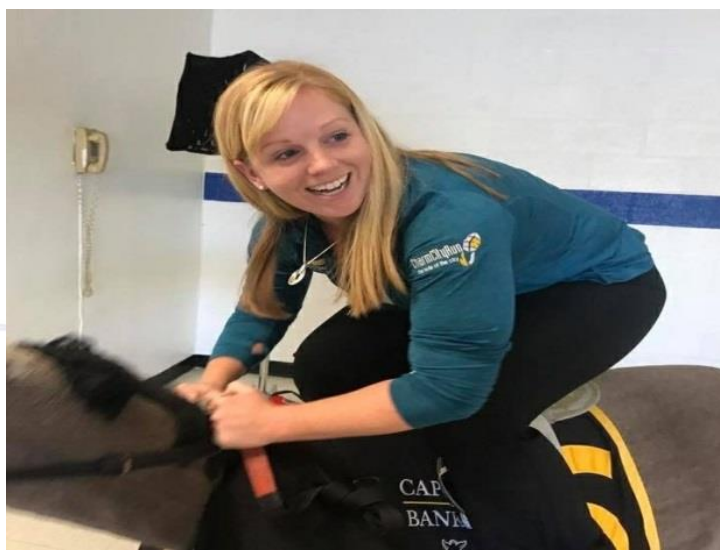


MedStar Union Memorial Hospital

Sunday at 1:47 PM · 🌐

When a groomer collapsed in sudden cardiac arrest at Laurel Park yesterday, the rush to save his life became the most important race of the day. Dr. Kelly Ryan, a member of MedStar Sports Medicine's Horsemen's Health team, was there. Using an automatic external defibrillator and CPR, she worked tirelessly to restore his heart beat, and when medics arrived- he was alert and speaking. MedStar Health is proud to provide medical coverage to Maryland's licensed horsemen, jockeys, and workers, and we're proud of Dr. Ryan for her life saving efforts.

For more information about Horsemen's Health go to:
<http://preview.tinyurl.com/yd48k23t>





Knowledge

Benefits of Racetrack Physician

- Workman comp/Occupational Health
- \$\$\$\$\$SAVE MONEY\$\$\$\$\$
- Relationships with athletes and workers
- Better follow-up
- Improved Trust – Physicians that understand their demands
- Accessibility

Preventive Health

- Specific concerns of backstretch employee
 - Allergies
 - Tetanus
 - Drugs/Alcohol
- Cancer Screening
- Diabetes
- HTN

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Procedures/Medstar Visits

ACL reconstruction
ORIF Ankle
Radial Collateral Ligament Repair
Multiple Vertebral Fracture
Hip replacement
Knee replacement
Scapular fracture, tibia fracture
Sternal subluxation, vertebral fracture
SC dislocation
Cholecystectomy
EGD
Colonscopy
Myomectomy

Uncountable pre ops, injections
Harbor Hospital ER evaluations
Stroke admission
Tib/Fib Fracture
Low back injections/Cyst Removal
Multiple Hand Surgeries
Paronychia procedure

At-Risk Populations in Sports-Related Concussion

Jeffrey S. Kutcher¹ and James T. Eckner²

¹Department of Neurology, University of Michigan, Ann Arbor, MI; ²Department of Physical Medicine & Rehabilitation, University of Michigan, Ann Arbor, MI

“A large part of concussion management is the estimation of risk. Return-to-play decisions are made with the risks of possible symptom exacerbation, subsequent concussion, or catastrophic injury in mind. Every athlete, whether previously concussed or not, walks on to the field of play with some inherent risk of being concussed. One begins the estimation of an athlete’s concussion risk by considering his or her sport and position. **By understanding that this risk** ultimately is defined by far more than just these two parameters, however, **we become better advocates for our patients and are able to provide a higher standard of clinical care.”**



MedStar Sports Medicine



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