

COMBAT TACTICAL

SPORTS MEDICINE CONFERENCE

KIME Combat/Tactical Sports Medicine Conference Schedule + Descriptions

Friday Nov 4th

7:00 - Registration

8:00 - Intro Lecture: Fight Life Performance by **Russ Dunning, PT SFGII and Urijah Faber, UFC Legend**

Lifestyle management of a tactical athlete. Understand the challenges of the daily schedule and prioritize your interventions to get winning results. Understand the mindset of the tactical athlete and how to manage this type of client successfully. Their ability to perform is their livelihood.

8:30 - Lecture: "Loading and Nutrition to Optimize Tension Performance by **Dr. Keith Baar, PhD**

Discussion on the fundamental science of how tendons work in the human body. Training Strategies for the body to improve how our connective tissues behave under load with speed, power, strength, and elasticity. Explore key parameters that matter for connective tissue health, and ways to improve movement properties which allow for safer and better movement under tension. Different nutritional and loading strategies will be discussed as tools to optimize the management of tendon health in the human body.

9:00 - Lecture: Neck with **Dr. Alberto Panero, DO**

Discussion regarding injuries to the neck and head in combat sports which can occur very frequently. Focal points of the presentation will be common pathologies, clinical exam, red flags to be aware of. Current treatment considerations for rehabilitation of injuries and relevant healing timelines. Return to play protocol will be covered for concussive injuries. Differential diagnosis and pathology that would benefit from biologic intervention use will be discussed. Current science surrounding leukocyte rich and leukocyte poor PRP which determines the rehabilitation protocol following such a procedure.

9:30 - Lecture: Shoulder by **Dr. Brandon Beamer, MD**

Cartilage and tendon injuries in the tactical athlete and how they happen. Discussion of conservative and surgical management along with healing timelines related to these injuries. Understand different protocols and expectations for tending vs cartilage injuries in the shoulder. Postural and training considerations that impact care for this client.

10:00 - Break

10:15 - Live case study with **Jessy Clark** (elbow) and **Chris Gonzalez** (Hand), facilitated by **Russ Dunning, PT SFGII (Guest Strength Coach: Amadeo Novella)**

Hear the experience direct from the athlete.

- How did the injury occur?
- What were the initial symptoms and progression?
- How did the medical team coordinate a comprehensive rehabilitation strategy?

- What interventions were utilized along the way to restore normal movement and strength?
- How has it been managed over the long term?
- How has it recovered?

11:00 - Lab: BulletProof Upper Extremity by **Dr. Aaron Crouch, DPT, CSCS, SFGI**

Learn the upper extremity exercise progression to restore strength and power to the shoulder, elbow, and hand. This is a hands-on lab of live demo and practice on the training floor with the athletes and the therapists/trainers the coach them.

12:00 - Lunch

1:00 - Lecture: Ankle by **Dr. Scott Whitlow, MD**

Discussion of common ankle injuries in the tactical population including sprains and fractures. Understand healing timelines and management of different grades of sprains and tears, including what necessary training modifications may be to help support healing. Will also discuss MMA foot syndrome due to the nature of dynamic posturing in the sport, along with common foot fractures that are seen in wrestling and combat. Return to play considerations and rehab considerations following sprains and fractures.

1:45 - Lecture: Knee by **Dr. Brandon Beamer, MD**

Current concepts in ACL/meniscus repair. Discussion of the validity of different repair techniques and graft considerations. Long term considerations for knee health following surgery. Common problems that can arise with healing and rehabilitation and how to manage these issues. Discussion of most important factors to determine and successful return to sport following ACL or meniscus repair.

2:30 - Break

2:45 - Live case study with **Josh Emmett** (Knee) UFC 20-2 & **Maycee Barber** (Foot) UFC 11-2 facilitated by **Russ Dunning, PT SFGII (Guest Strength Coach Darren Drabin)**

Hear the experience direct from the athlete.

- How did the injury occur?
- What were the initial symptoms and progression?
- How did the medical team coordinate a comprehensive rehabilitation strategy?
- What interventions were utilized along the way to restore normal movement and strength?
- How has it been managed over the long term?
- How has it recovered?

3:30 - Lab BulletProof Lower Extremity with **Dr. Evan Hauger, DPT, CSCS, SFGI**

Learn the lower extremity exercise progression to restore strength and power the the hip, knee, and ankle. This is a hands-on lab of live demo and practice on the training floor with the athletes and the therapists/trainers that coach them.

4:30 - Lecture: Fight Camp by **Urijah Faber, UFC Hall of Famer**

-Discussion of what an 8 week fight camp entails for the combat athlete. Understand the demands of this time period leading up to competition and how to ensure the athlete will be able to compete at a high level. Common mistakes made during this time period which can lead to poor performance or injury. Discussion of training loads, nutrition, injury management, sleep, and making weight in a safe and healthy manner.

5:00 - Conclude the day. Social Gathering immediately following.

Saturday Nov 5th

8:00 - Lecture: Lifestyle and Recovery with **Urijah Faber and Russell Dunning, PT SFGII**

-Discussion of lifestyle factors that can positively or negatively affect athlete readiness. Short and long term effects of different sleep patterns and eating habits on performance and health of the tactical athlete. Understand the importance of nutrition as it is the fuel for your body to meet your training and competition demands. Appreciate that these nutritional strategies will vary depending on how close the athlete is to competition or whether they are in competition. Understanding that each athlete may have different nutritional needs to fuel their performance based on their medical history and lifestyle habits.

9:00 - Lecture: Elbow by **Dr. Sean Robinson, MD**

Elbow Dislocation in combat sports: mechanisms, surgical management, conservative management. Consequences of loss of elbow ROM, a common problem following elbow dislocation and when to initiate restoration of ROM following the injury. Healing timelines and precautions for training during the initial stages of this injury, especially consideration for high impact and high force movements.

9:30 - Break

9:40 -Viecheslav Borshchev (1:15)(Slava)(Neck) UFC 6-2, Cory McKenna UFC 7-2 (Head) by Russ Dunning

Hear the experience direct from the athlete.

- How did the injury occur?
- What were the initial symptoms and progression?
- How did the medical team coordinate a comprehensive rehabilitation strategy?
- What interventions were utilized along the way to restore normal movement and strength?
- How has it been managed over the long term?
- How has it recovered?

10:15- Lecture: Lumbar Spine by Dr. Alberto Panero, DO

Evaluation and intervention strategies to keep these athletes moving in a healthy and safe manner. Focal points of the presentation will be common pathologies, clinical exam, red flags to be aware of. Current treatment considerations such as rehabilitation, and healing timelines, and precautions for activity. Recognizing that each injury will come with its own set of training limitations that may need to be considered while healing occurs to ultimately help the athlete return to a state of physical readiness.

10:45 - Lecture: Hip by Dr. Hunter Greene, MD

Hips are key to the tactical athlete's success. This lecture will identify common pathology in their hips and current intervention strategies both surgical and non-surgical. Rehabilitation considerations will be covered as well as training considerations if the athlete has precautions at different points in their injury recovery. Communication between the medical, rehabilitation, and training team is key in all return to play situations.

11:15 - Lab: BulletProof Spine Progression with Dr. Tony Mikla, DPT, MSPT, CSCS

Learn the exercise progressions to restore strength and power the spine and core in the combat athlete. Appreciate the importance of the spine in the process of kinetic linking to deliver power. This is a hands-on lab of live demo and practice on the training floor with the athletes and the therapists/trainers that coach them.

12:15 - Lunch

1:00 - Live case study with Max Griffin (Spine) UFC 18-9, Anthony Hernandez

Hear the experience direct from the athlete.

- How did the injury occur?
- What were the initial symptoms and progression?
- How did the medical team coordinate a comprehensive rehabilitation strategy?
- What interventions were utilized along the way to restore normal movement and strength?
- How has it been managed over the long term?
- How has it recovered?

1:45 - Q&A With Russ Dunning

2:45 - Break

3:00 - Lab: Strength Conditioning with Russ Dunning, PT SFGII

The demands of the combat and tactical population are often higher than most when it comes to strength and conditioning. This lab session is designed to help participants learn strength progressions, coaching techniques and cues, conditioning principles and methods specific to combat and tactical athletes, and putting all of this into a plan that will help the athlete return to peak performance. Medical, rehabilitation, and training provider roles will be discussed with an emphasis on building a solid team around the athlete to ensure high levels of success and health.

4:00 - Lecture: Role of biologics in healing and rehabilitation by Dr. Alberto Panero, DO

Learn the current science of PRP, STEM Cell, and other up and coming procedures changing the future of injury management and rehabilitation, as well as what to expect if your client receives one. Injection therapies comprise some of the biggest advancements in recovery and health in sports medicine. This lecture will cover current concepts in biologics and precautions to consider for rehabilitation professionals working with their clients. Ultimately it is important for the whole team to understand interventions that are being done with their clients and athletes so that they can be supported in their healing process and have the best outcomes in competition, training, and life.

4:30 - Lecture: Tendon Science by Keith Baar, PhD

In depth discussion surrounding basic and advanced recovery strategies to support the athlete coming back from either injury or intense activity. This lecture will be focused on current research for circadian rhythms and how they contribute to healing for various pathologies and recovery from strenuous activity. This will include discussions on how to optimize nutrition timing, hydration, and sleep hygiene in healthy populations that are supported by current research. Detrimental effects on tissue healing and nervous system function (such as effects on reaction time and the ability to tolerate physical workloads) will also be discussed in the context of poor nutrition, sleep, and hydration.

5:00 - Conclude the day

Sunday Nov 6th

8:00 - Lecture: MSK Dx by Dr. Alberto Panero, DO

Learn about the applications and indications of musculoskeletal diagnostic ultrasound for identification of injuries. This lecture will cover many examples of injuries diagnosed with diagnostic ultrasound especially ones that are common in the combat athlete population. Dr. Panero will review signs and symptoms of common pathology and match this with the imaging to create a potent learning experience. Differential diagnosis and the decisions surrounding each finding will be discussed.

9:30 - Break

10:00 - Intro to PRP - Science leads to protocols

Understand the science that gives way to the rehabilitation protocol. This introductory lecture into what is PRP (platelet-rich plasma) and what are the different types that are used to help athletes recover from injuries that happen on the tendon and ligament level. The science of PRP and injection therapy is one of the fastest growing areas in sports medicine and is something training and rehabilitation professionals need to be aware of when managing people in the combat and tactical population. Differential diagnosis will be discussed for specific injuries and presentations that may lead to the client benefitting from an injection. Current research on PRP will also be discussed which has led to the development of several rehabilitation protocols for different types of tendon and ligament injuries throughout the body.

11:30 - Live Demonstration: PRP Injection (*this will not be done on conference participants, and will be pre-arranged by Dr. Panero.)

Dr. Panero will be providing a live demonstration of PRP injections to help participants better understand the process and what their clients may be receiving from their medical team. Just as viewing surgery is beneficial for the rehabilitation team to understand the procedure and specific case they will be rehabilitating, the decision making that precedes an injection and treatment process that follows a PRP injection is equally important to understand for a physical therapist. This live demonstration will provide great insight into the decision making of the medical team which will help the rehabilitation and training staff manage the athlete better in their recovery from injury. Combat and tactical athletes are often subject to high forces and traumatic injuries which can greatly be assisted by injection therapies such as PRP to assist in healing.

12:00 - Conclude the day