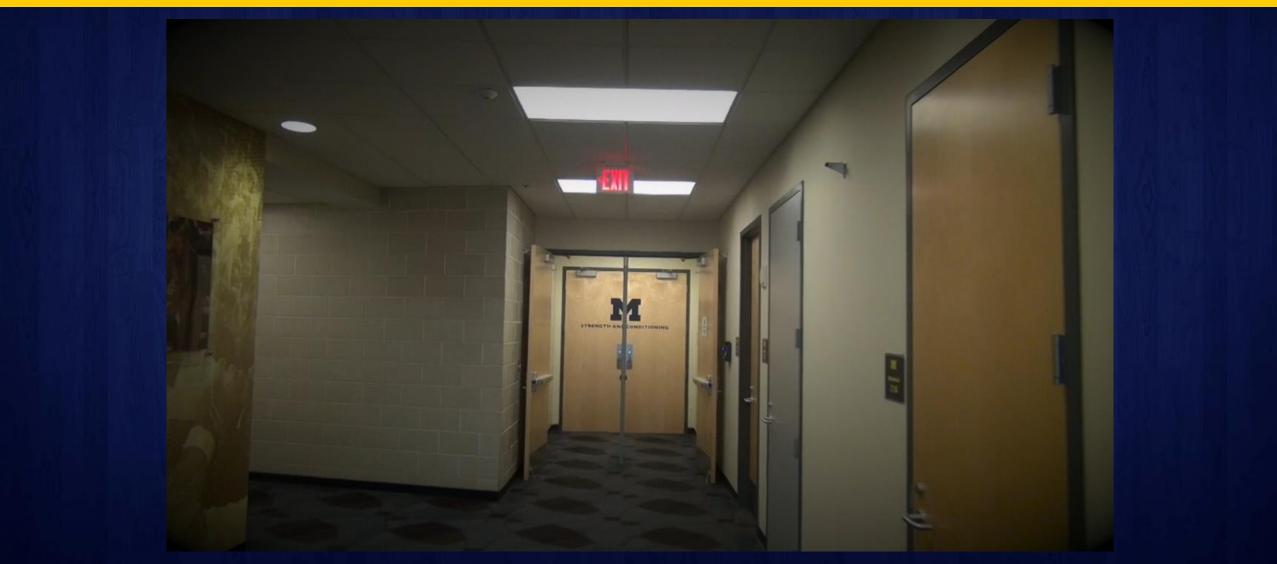
## Basketball Strength & Conditioning: Pre-Season Conditioning and In-Season Training

Jon Sanderson

University of Michigan Head Strength & Conditioning Coach



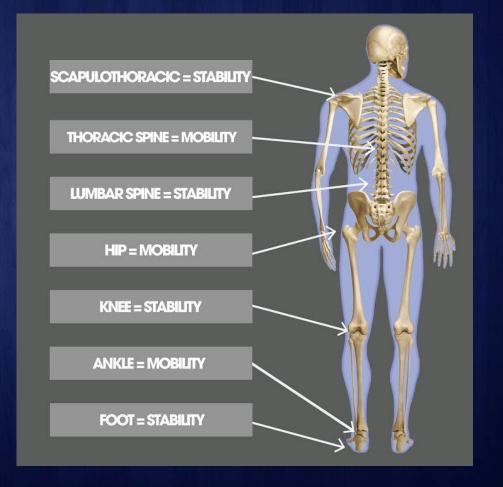
# **CAMP SANDERSON**





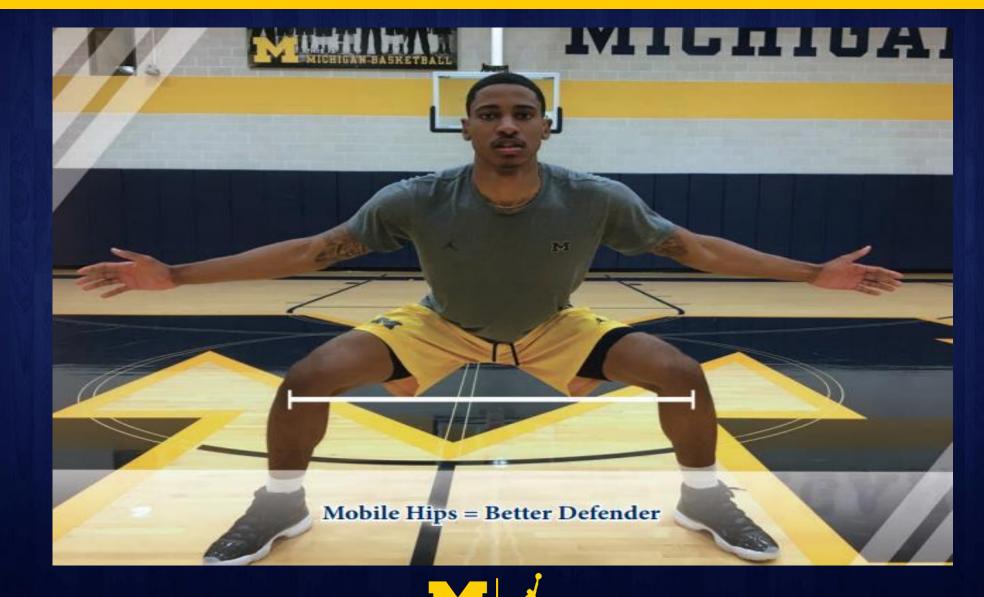
# WARM-UP COMPONENTS

- Raise core body temperature up/get blood flowing
- Foam Roll (optional)
- Ankle
- Hip (multi plane)
- T-spine
- Glute Activation
- Core Activation





# **MOBILITY AND DEFENSE**



# WARM-UP (no equipment 1 of 3)

### Walking Series:

- Hammies
- Quads w/ opposite hand up
- Figure Fours
- Grouchos





# WARM-UP (no equipment 2 of 3)

### In Place:

- Adductors
- Hip Flexors
- Windmills
- Knee Drivers





# WARM-UP (no equipment 3 of 3)

### **Activation:**

- Glute Bridge
- Push-up Plank
- Side Plank (hand)



Glute Bridge





Push-up Plank



Side Plank

# WARM-UP (w/ equipment 1 of 4)

### **Kneeling Series:**

- 5-Way Hip Mobility
- 90-90 Hip Mobility



### **Pre Practice**

- Make it more dynamic, 3s holds Post Practice
  - Longer holds, 10-15s



90-90 Hip Mobility





# WARM-UP (w/ equipment 2 of 4)

### **Kneeling Series:**

- Quad / Hip Flexor Mobility
- Knee Drivers



Quad-Hip Flexor Stretch





**Knee Drivers** 

# WARM-UP (w/ equipment 3 of 4)

### **Glute Activation:**

- Band Slides
- Glute Bridge w/ band



Glute Bridge w/ Band

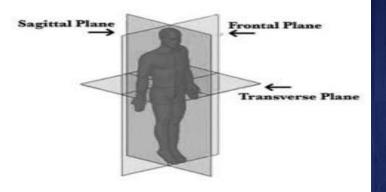
**Band Slides** 



# WARM-UP (w/ equipment 4 of 4)

### **Core Activation:**

- Band Pallof Press
- Band Lifts









**Band Lifts** 

## **PRE-SEASON CONDITIONING**

## Key Concepts

- Specific to the energy demands of the sport (SAID Principle)
- Build a progression.
- Multi-directional movements
- Encourage your athletes to play open gym and compete (the best way to get in shape)

- S. SpecificA. Adaptations to
- I. Imposed
- D. Demands

The body will adapt to the demands placed on it, no more and no less



## **PRE-SEASON-MULTI DIRECTIONAL MOVEMENT**

## **REACTIVE/UNPLANNED**

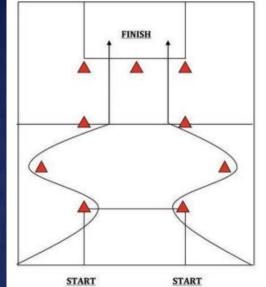


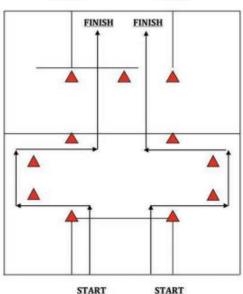


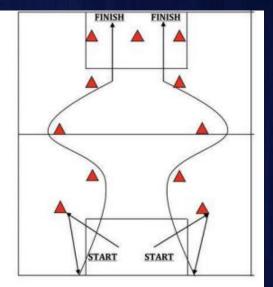
## **PRE-SEASON-MULTI DIRECTIONAL MOVEMENT**

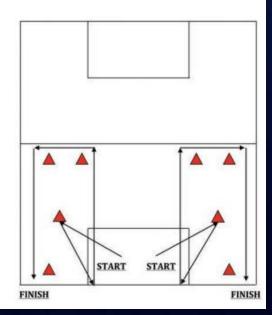
## NON-REACTIVE/PLANNED











## **PRE-SEASON CONDITIONING**

## **CONDITIONING TESTS**

- CELTICS CONDITIONING TEST
  - 3 MIN. CONTINUOUS RUN FROM BASELINE TO BASELINE
  - RECORD MAXIMUM LENGTHS ACHIEVED
  - GIVE <sup>1</sup>/<sub>4</sub> CREDIT IF THEY FINISH ON THE FREE THROW LINE
  - GIVE 1/2 CREDIT IF THEY FINISH AT HALF COURT
  - GIVE <sup>3</sup>/<sub>4</sub> CREDIT IF THEY FINISH AT THE OPPOSITE FREE THROW LINE
  - ESTABLISH BASELINE, CHALLENGE THEM TO GO BEYOND IT





## **PRE-SEASON CONDITIONING**

## <u>CONDITIONING</u> <u>TESTS</u>

### GAUNTLET

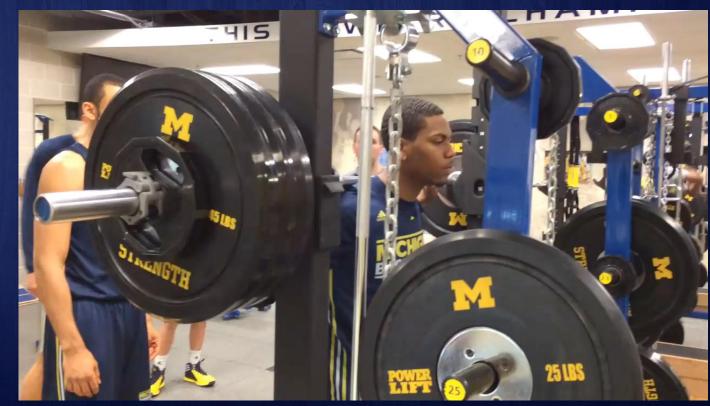
- 17 LENGTHS SIDELINE TO SIDELINE
- 1 MIN REST
- 17 LENGTHS SIDELINE TO SIDELINE
- 1 MIN REST
- 8 LENGTHS SIDELINE TO SIDELINE





## Why Train In-Season?

- Strength and power are *perishable.* > If you don't use it you lose it!
- Stronger athletes are more durable and they are able to sustain the forces and collisions that occur during competition
- Maintaining strength and power improves performance
  - If we didn't train, we wouldn't be able to play at our best when it matters most





## **In-Season Lift Components**

 Before Practice: Explosive Movements Lower Body Strength \*Optional Ab/Trunk (Core)

### • After Practice:

Upper Body Push/Pull Posterior Chain \* Optional Ab/Trunk (Core) Auxillary/Injury Prevention

#### Dynamic Warm-Up

· Foam Roll, Individualized Mobility Plans

#### Explosive Movements

Olympic Lifts, Speed Squats, Box Jumps

#### Lower Body Strength

Squats, Deadlifts, Lunges, Step-Ups

#### **Posterior Chain**

 Romanian Deadlifts (RDL's), Hypers, Glute/Ham Raises

### Upper Body

Push: Bench Press, Incline Press, Military Press
 Pull: Rows, Chin-Ups, Lat Pull-Down

### Ab/Trunk

- Sagittal Plane: Sit-Ups, Planks
- Frontal Plane: Side Planks, Overhead Side Bends
- Transverse Plane:
   Chopping Movements

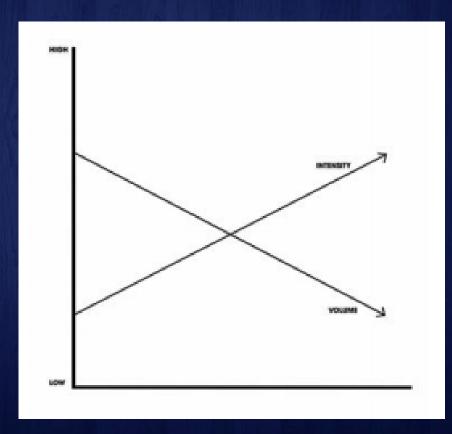
### **Injury Prevention**

- Scap Routines
- Ankle Strength
- Balance Drills
- Landing Mechanics
- Cool Down
  Mobility/Flexib

## Volume and Intensity Suggestions

- Olympic Lifts: 1-4 reps (Ex: Clean/Snatch/Pulls)
- Strength Movements: 1-4 reps (Ex: Back Squat / Trap Bar Deadlift)
- Auxiliary Movements: 4-8 reps

   (Ex: Military Press / Lat Pull-down / Reverse Hyper)





## **Trey Burke: 2013 National Player of the Year**

- Averaged 80% of back squat max over the course of the season.
- Squatted 30 times over the six-month season



