

# An Approach to Developing Specific Endurance in the Sprints and Hurdles



Kebba Tolbert  
Harvard University

# Specific Endurance

- Influences
- Overview
- Specific Principles
- Examples

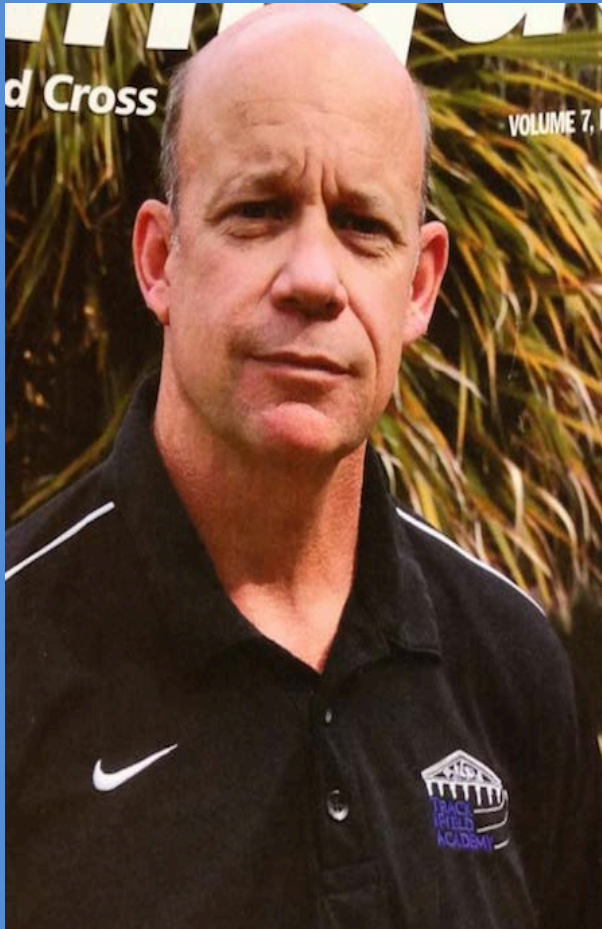


# Dan Pfaff

- What are the KPIs?
- Can they be successful?
- Solar System



# Boo Schexnayder



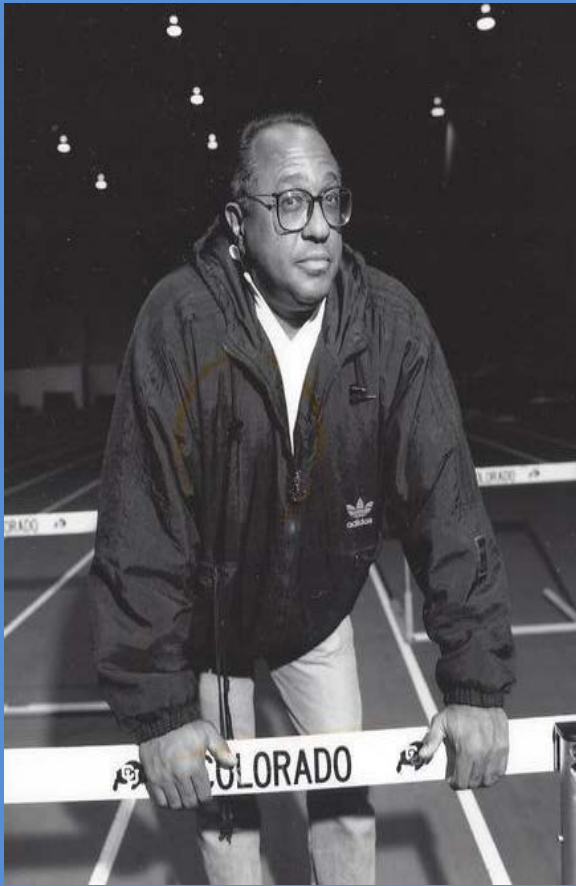
No death marches



Volume & Intensity



# Tony Wells



- Because of or in spite of?
- Why do you do that?
- Can you bring it to the track?

# Gary Winckler



- What are you trying to accomplish?



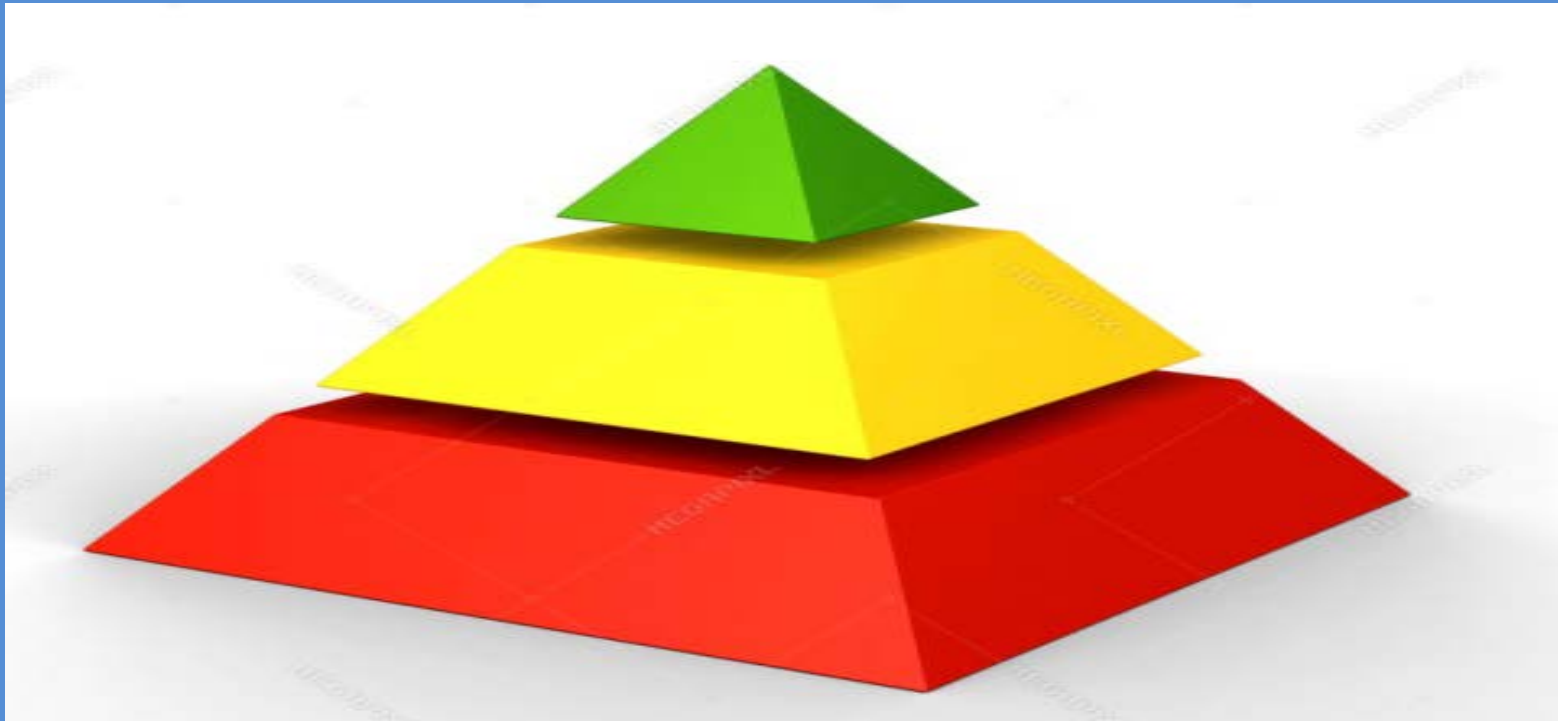
# Yoda

- Be patient, have a long term view
- Be demanding, have standards



# Key Factors

- We prioritize neuromuscular development
- We believe in building a BIG BASE - a base of speed and power



# Key Factors continued

- Specific Endurance/Work Capacity is NOT simply running
  - warmup through cooldown
  - entire cycle
  - long term development



# General Prep

- 3 days a week devoted to Acceleration, Speed, and Power Development
  - *NM Development – Building the Base*
    - Acc Dev. - Day 1 (12 runs – ex. 4x10, 20, 30)
    - Acc Dev. – Day 2 – Resisted Runs (12x30m, 10x40m, 9x50, 8x60m)
    - Speed Dev. – wickets, stadiums, or strength endurance
    - Also doing multijumps, multithrows, and Olympics/Statics
- Other days are General (reduced intensities) to foster recovery
  - Technical work (jump tech, hurdle tech, sprint tech)
  - General strength circuits/medball circuits
  - Hurdle Mobility and Bobbybuilding/Auxiliary Lifts

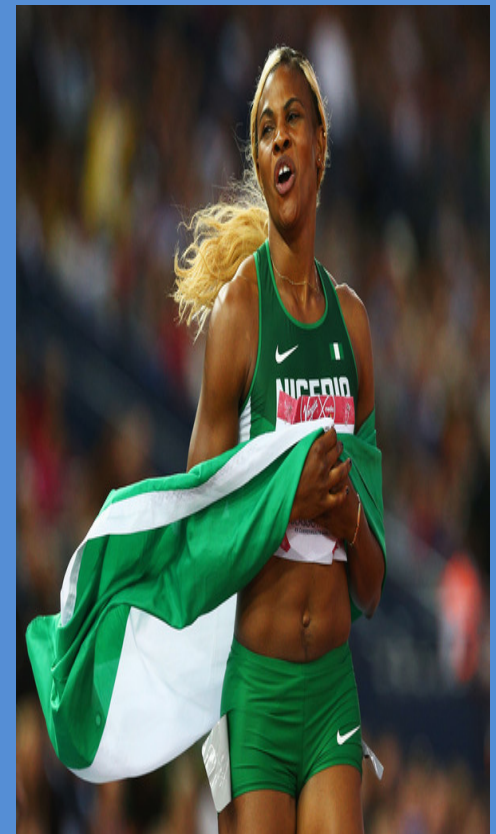
# Grouping by Neuromuscular Demand

## Neural Components

- Acceleration Development
- Speed Development
- Speed and Specific Endurance
- Multijumps
- Olympic Lifts
- Static Lifts
- Ballistic Lifts
- Multithrows
- High Intensity Technical Work

## General Components

- General Strength
- Medicine Ball
- Extensive Tempo
- Intensive Tempo
- Bodybuilding Lifts
- Low Intensity Technical Work



# General Prep

- 1200-2000m (day 6) sprinters, hurdlers, jumpers, multis
  - 10x120m, 8x150m, 6x200m, 12x100m [2'] - 2<sup>nd</sup> cycle add 1' (intensity overload)
  - surface choices
- For 400m/400H group may add 2<sup>nd</sup> day in Cycle 2 (day 3)
  - 250+50, 200+50, 150 [6', 10'] 150+50, 100+50, 50 [VA]
- 100m/200m/100H/multis
  - 4-6x80m up-backs (rationale)
  - Cycle in and out (strength endurance)
  - Variance

# Specific Prep Onward



# Specific Prep

- A, B, C – we are all going to work hard, but may not do the same thing
- Begin to ladder down
- Individualize more – skew more toward strengths
- Careful to balance acceleration, speed, specific endurance and wt trn
- Rest and Recovery/Regeneration Key
- Plan your imbalances



# 100m

- Sprint-Float-Sprint (SFS)

- 45/65/80-85

- 50/70/90

- 30/30/30

- 40/40/40

- 150, 120, 90

- 120, 90, 70

- 80, 70, 60

- Will often do elastic work after (skips, bounds) –

- 4-6x30-50m



# Blessing 5-23-09

120m	TOTAL	10m Interval	20m Interval	40m Interval
40m	5.29			5.29
50m	6.30	1.01		
60m	7.29	0.99	2.00	
70m	8.28	0.99		40-80m
80m	9.28	1.00	1.99	3.99
90m	10.31	1.03		
100m	11.37	1.06	2.09	
110m	12.45	1.08		80-120m
120m	13.55	1.10	2.18	4.27

beams at 40m, 80m, 120m - other splits taken from Dartfish

90m	TOTAL	10m Interval	20m Interval
30m	4.17		
40m	5.17	1.00	
50m	6.16	0.99	1.99
60m	7.17	1.01	
70m	8.19	1.02	2.03
80m	9.21	1.02	
90m	10.26	1.05	2.07

beams at 30m, 50m, 90m - other splits taken from Dartfish

70m	TOTAL	10m Interval	20m Interval
30m	4.17		
40m	5.16	0.99	
50m	6.17	1.01	2.00
60m	7.19	1.02	
70m	8.21	1.02	2.04

beams at 30m, 50m, 70m - other splits taken from Dartfish



# 100H/110H

- 2x12H (reduced space and height)
- 2x8H, 2x6H
- 4x8H
- 25m run-in + 6H
- Combos
  - 2x12H, 2x120 or 90m
  - 2x8H then
    - 2xSFS (or)
    - 6x50m Skips ht/dist (or)
    - 4x50m SL Bound



# 200m

- 250m, 200, 150
- 2-4 x SFS
  - 50/50/50 or 40/40/40
  - ladder down
- 180, 150, 120
- 2x180, 150 then 3-5 x 50m  
SL Bound or Skip
- 2x150 or 2x250
  - then 4-6x50m (run, skip, bound)



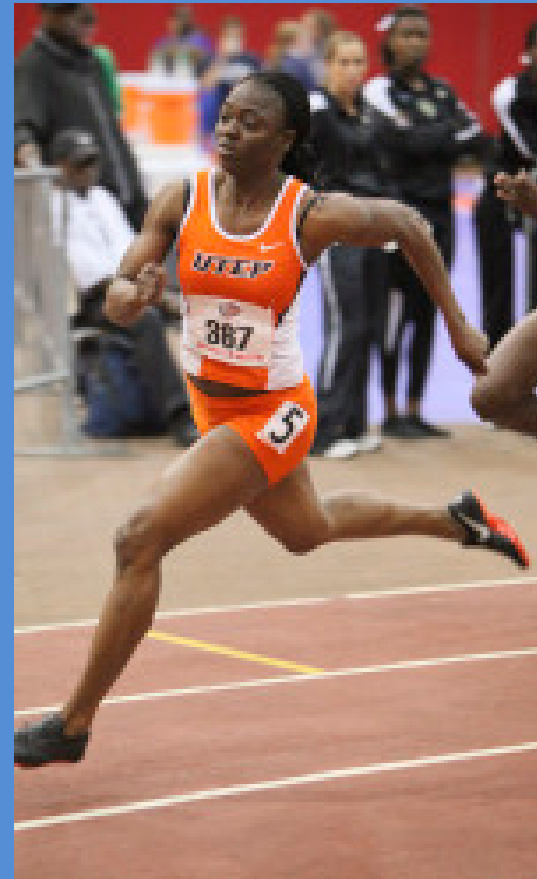
# 100/200m/4x4 combo

- 1 “long” run +
  - 300m + 5x60m
  - 250m + 3x50m up/back
  - 300m + 4x80m
- + can be runs, skips, bounds, stepovers
- 3x133
- \*\*use these methods sparingly
- especially in season \*\*



# 400m/400H

- 500, 400, 300
- 450, 350, 250
- 350, 250 then
  - 6x50-90m or 6x50H
- 300, 200, 120 then skip
- 350, 3x133, 2x200m
- 2x450 or 2x350 or 450, 350
- 2-3 x (3x133)
- Split runs (300/200, 350/150, 250/200) – 2<sup>nd</sup> run can be over hurdles
- 1 longer run then bouts of short work



# 400H

- 9H (reduced space)
- 1x7H then ??
- 200m+200H
- 250H/150H then
- 1 long run then bouts of shorter work
- 3-4x4-5H then ??
- 1-2x6-7H,

Then sets of 4H  
(H6-9) or (H5-H8)



# Examples – pt 1

**Monday, May 16, 2016** - 2x7x80m [GT – 6 reps per set?]

MJ – Pfaff – 2x10-20m (1 w/MB?); GS – Yavin 24” on/12” off ;

MB – Tatooine x 10; HM Static (1-4, 6, 7) 2x5H

NOTE : 1 – backwards; 3+4 single leg; 7 – backwards (back 2, forw 1) CD – Banded Stretches/Ball Work + Drills A – 2x15m

**Wednesday, May 18, 2016**

**NM** - 150m (12-15 min), 120, (90m or 2 x 40m Skip for HT)

**GT/CS** - 2x180 (12-15 mins), 1x150... then 3-5x50m SL Bound

**AF/JM** - 1x250H (7H) (60") 2x150H (H8-9-10-11?) [3-4 mins] 15 mins - 2-4x150H

Lift - Olympic – 6x1-2 progressive or 6x3 (light, fast) or Single Leg – 6x1

(l-r) Bench – 5, 3, 1; Russ Tw – 2x10 (standing w bar)

MT – Latifah x 2 (light shot); CD – 3 mins skip+side shuffle + Malcolm X; PM –

EPSPOM SALT

# Examples – pt 2

## **Saturday, May 21, 2016**

JMill – 1x500m (8-12 mins) 3-5xH6-H9  
AF – 1x300m (8-12 mins) 3-5xH7-H10  
GT – 1x300m (8-12 mins) – 4x60m (1 min)  
NM – 3x80m (8-10 mins)

CS – ?? (1x300m.. then) or Stepovers and MT only

## **Thursday, June 02, 2016**

**MJ – 2x10 Bound or 2x6 Bound**

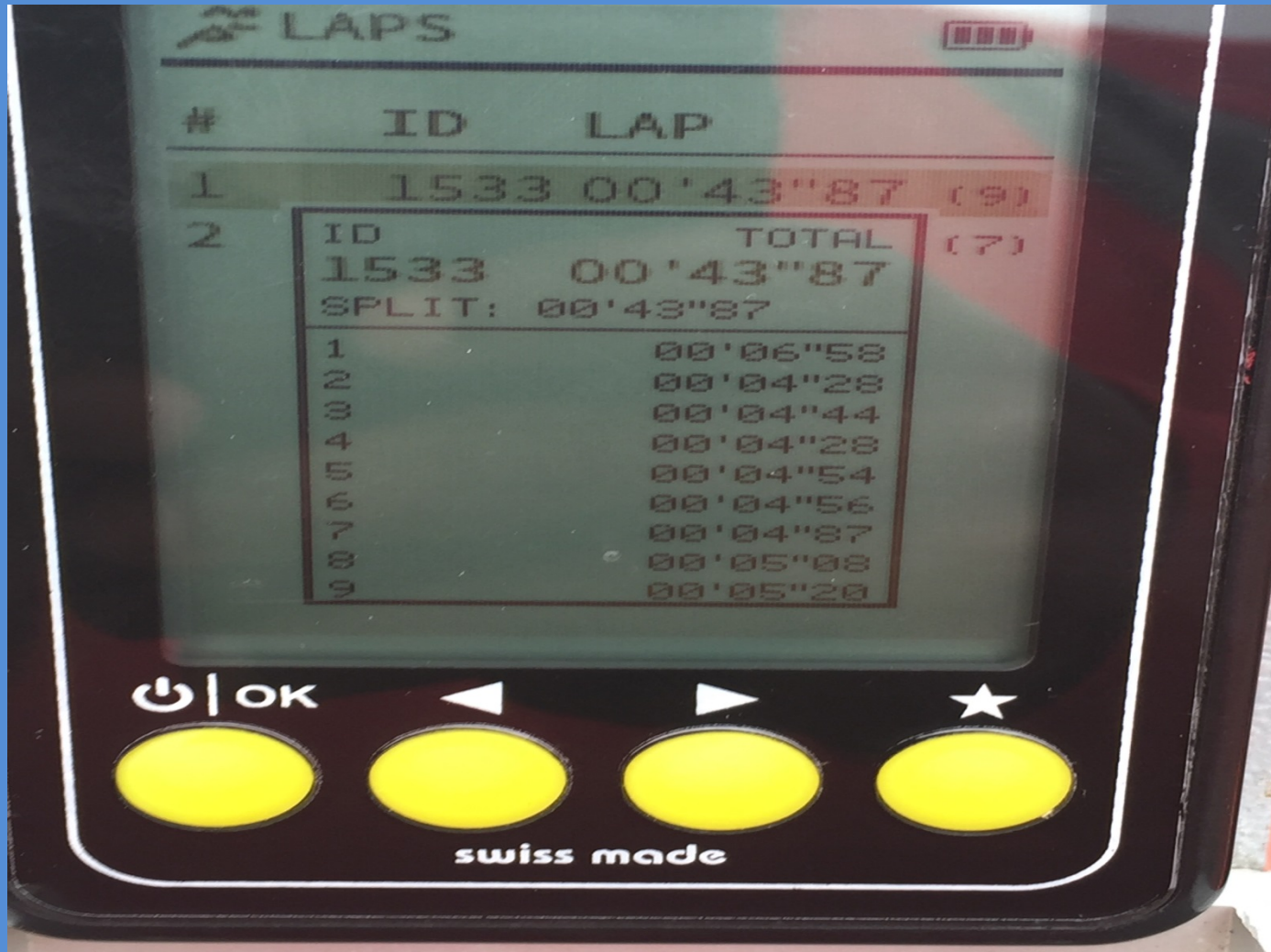
**GT – 3 runs (150, 120, 90)**

**NM – 3 runs (120, 90, 70)**

**AF – 1x9H (2 mins) H6-H10 [20-25 mins] then TBA [3x150H]**

**Lift – Olympics – 3x2, 3x1; 1/4 Jump Squat – 4x4 @20% bw; Incline 3x6; Russ Tw – 2x10**

# Autumne - June 2



# Adjustments



- When it's going well or better than expected?
- When it's not going as well as planned?

BE STUBBORN  
ABOUT YOUR  
GOALS, AND  
FLEXIBLE ABOUT  
YOUR METHODS.

# Examples – pt 3

## **Decmber 11, 2016 – Autumne/Jade**

AF/JM– 3x180m (6.5 mins/8 mins), 2x140m (5 mins)  
3xwickets w 10m run-off

Adjusted from 6 mins due to quality...added 8 mins after  
180s

# Individualize within our philosophy



# Plan B



KEEP  
CALM  
AND  
PLAN  
B



# Bike Plan B

## Ancillary Bike Sessions

**Workout #1: Acc. Dev. Theme; Complete 15-25 bouts of 10 seconds at very high wheel resistance. Do not start the timer until you reach critical speed threshold. Use 1' rest within each set and 3-5' between sets. Common setting is 3x5;5x3;5x5;etc.....It is best to get up and walk around during the set pause period....to avoid bike butt issues.....seat height is dependent on health issues.....full knee extension is desired here if health issues permit this range of motion.....**

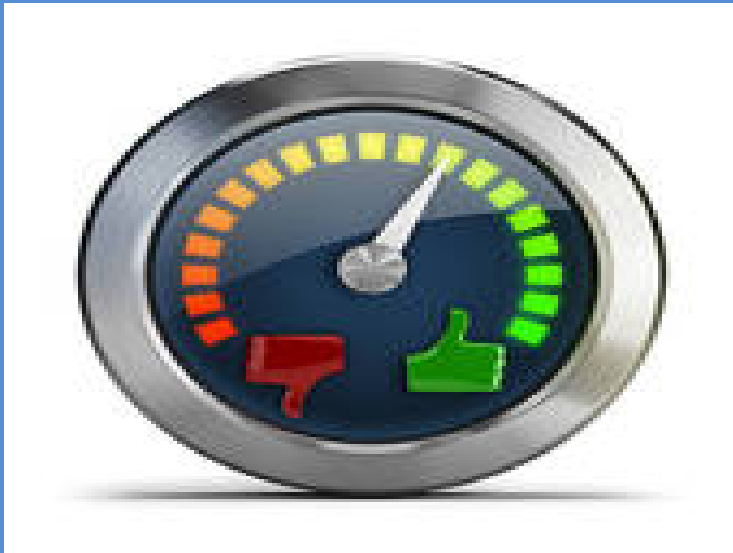
**Workout#2: Speed Dev. Theme; Complete 10-15 bouts of 20-30 seconds at high resistance. Do not start the timer until reaching desired speed value. Use 2-3 minute rest within the set and 5' rest between sets.....if health permits use a set height that allows for 90-95% knee extension values.....**

**Workout#3: Special Speed Endurance Themes; Complete 8-10 bouts of 45-60 seconds at medium to high resistance. Do not start the timer until you have reached prescribed speed values. The rest intervals vary here depending on desired endurance qualities to be challenged. They range from 30 seconds up to 5 minutes.....The session goal of the original daily plan will dictate the rest factors.....**

These sessions are designed to serve as plan B type formats. If you are caught on the road in bad weather, have a late arrival, fighting illness and or injury, etc. these are indoor series that will help to keep biochemical properties stable, positively influence neurotransmitter pools and pathways, and do wonders for cardiovascular functions.....there really is no excuse for not staying half way fit during times of "unscheduled interruptions".....

# Plan B

- Stepovers - Various Constructs, heights, speeds, progressions
- Pool

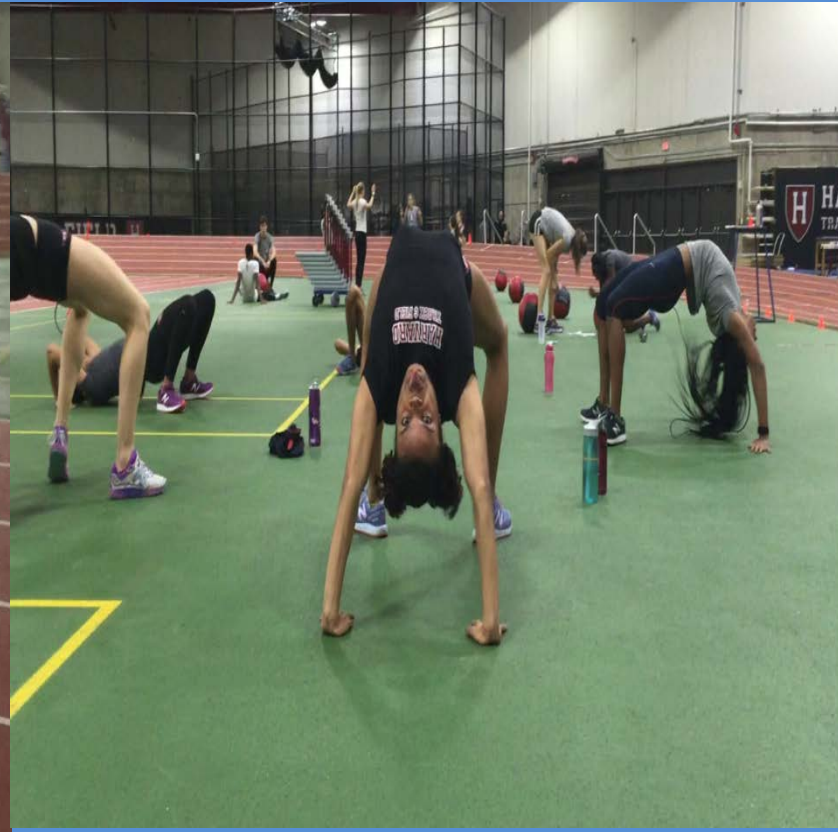


# General Work for Speed-Power Athletes

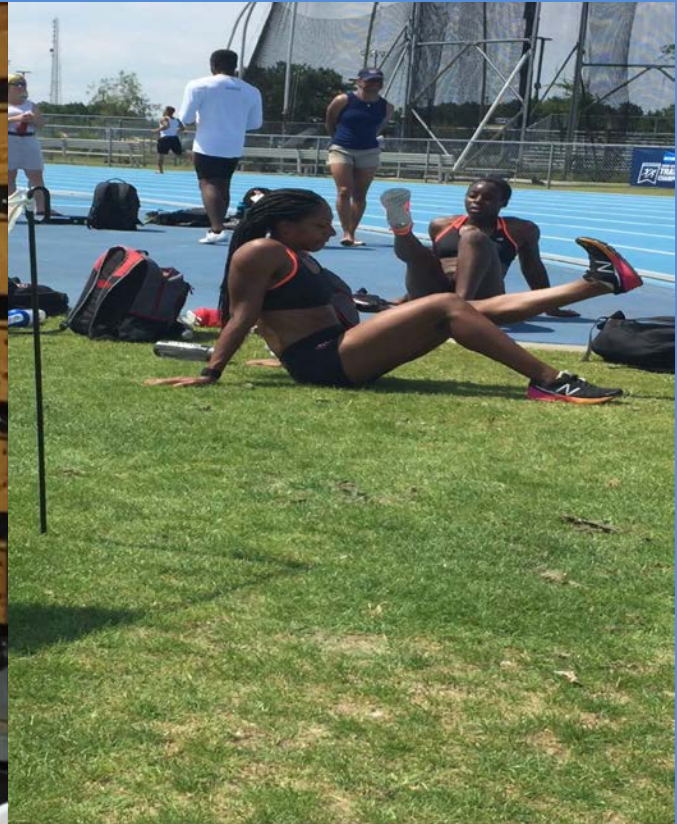
- Purpose of general work?
- Diff Types of General Work
- Lactate as an anabolic tool
- Running Volume
- Balance throughout the body
- Variety
- Regeneration/Sport Health
- Movement Screens



# General Work



# General Work



# Thank you

- Email – [kebba\\_t@hotmail.com](mailto:kebba_t@hotmail.com)

