

ACHIEVING GREATNESS

NSCA COACHES CONFERENCE

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3 - 5, 2018

CHARLOTTE
N. CAROLINA



Conflict of Interest Statement

- I have no actual or potential conflict of interest in relation to this presentation.

Bridging The Gap: Conditioning Program Design

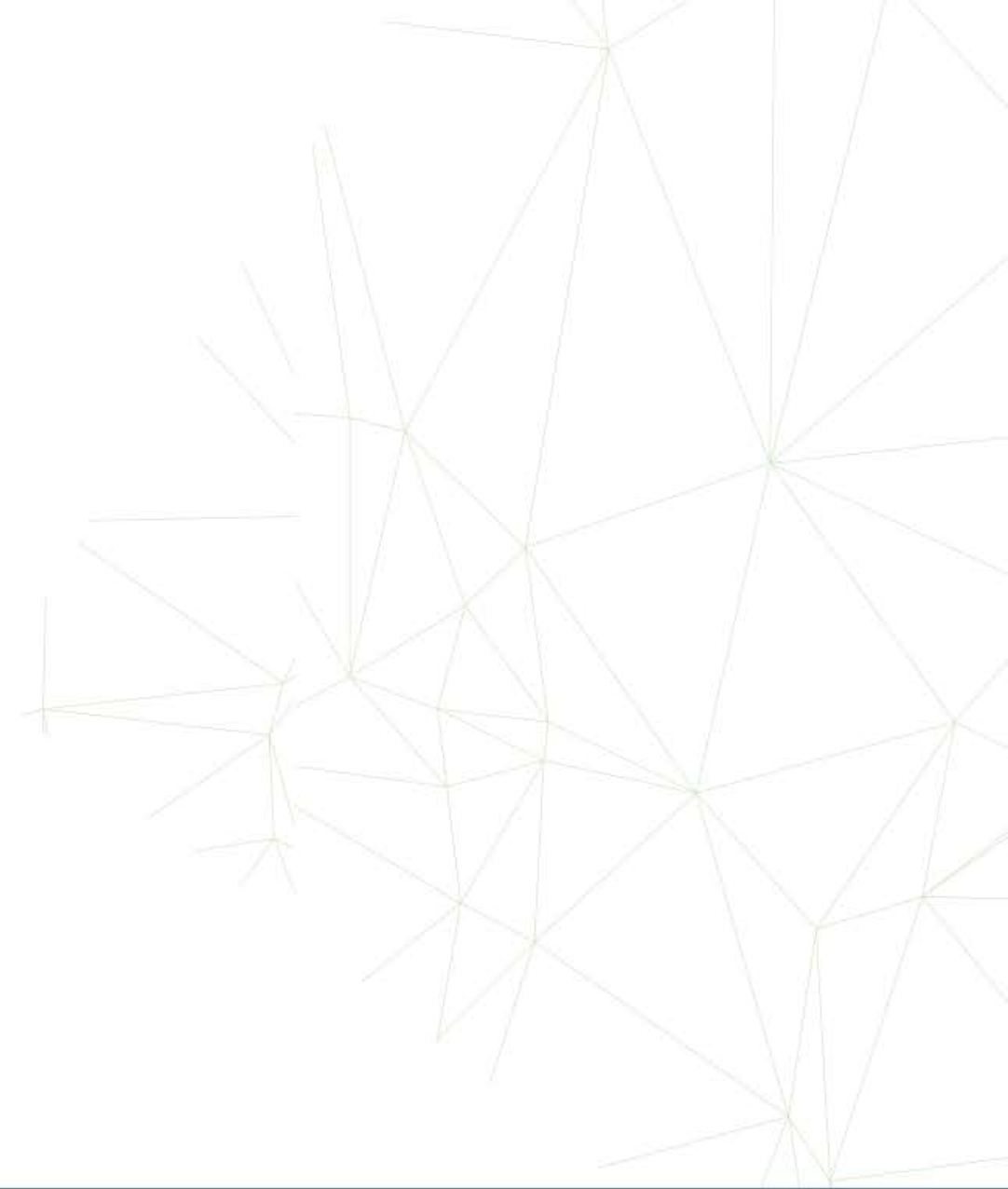
Ron McKeefery, M.A, CSCS*D, MSCCC

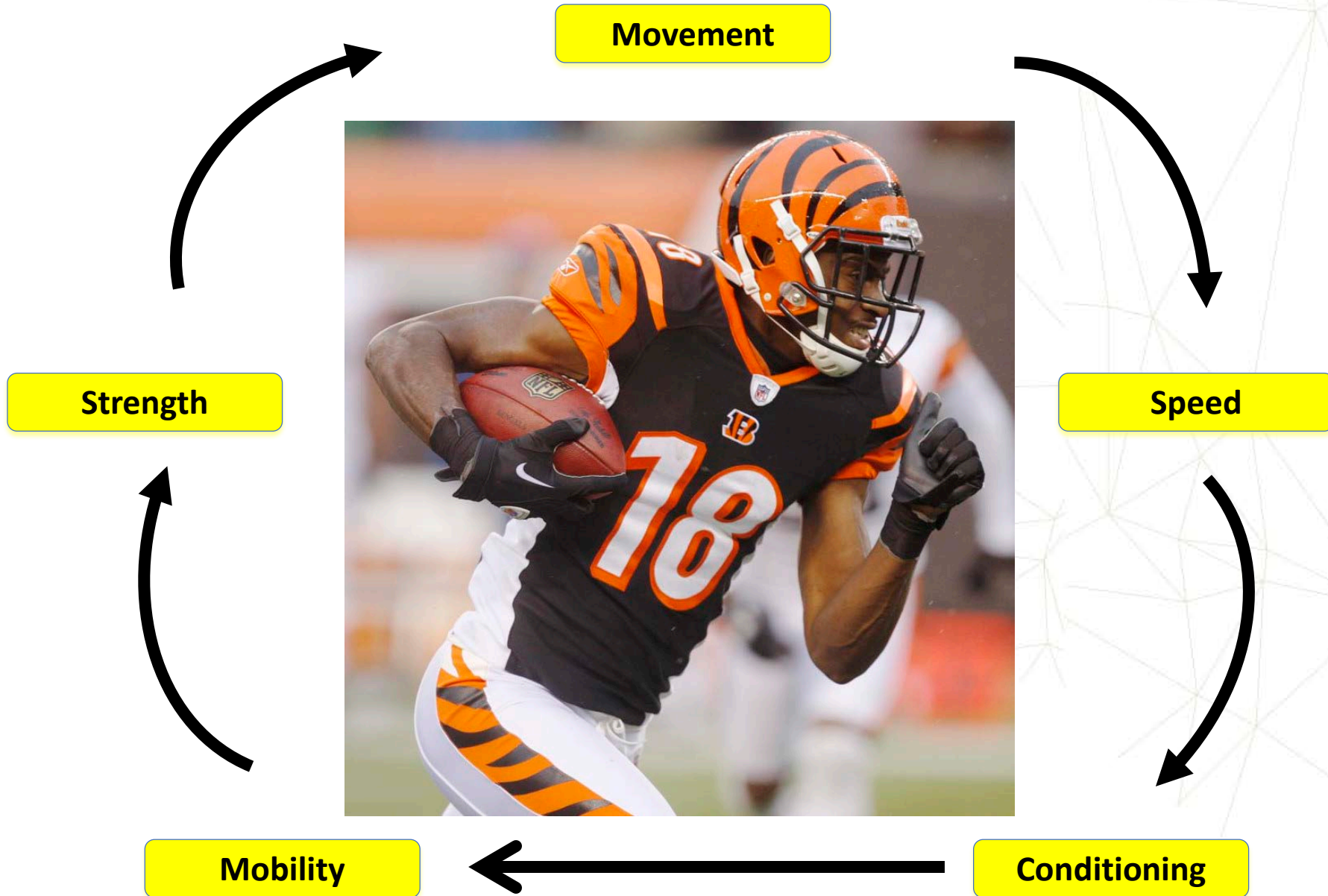
2016 NSCA College S&C of the Year

Vice President of Performance & Education – PLAE Perform

Needs Analysis

- Number of Athletes
- Training Modalities
- Training Days
- Resistance Training Program
- NCAA Restrictions
- Variety
- Linear Speed
- Lateral Speed & Agility
- Conditioning Program





Dynamic Warm Up

- A-Walks x 20yds
- A-Skips x 20yds
- B-Walks x 20yds
- B-Skips x 20yds
- Glute Lunge x 20yds
- Walking Hip x 20yds
- Elongated Backpedal x 20yds
- Quick Carioca x 20 yds
- Power Carioca 2x20yds
- Sprint 2x20yds



Flexibility

- PNF Stretch Routine
 - Definitive Start Time
 - Increased Core Temperature
 - Mindset
- Hip Mobility
- Strength Training Exercises through Full Range of Motion

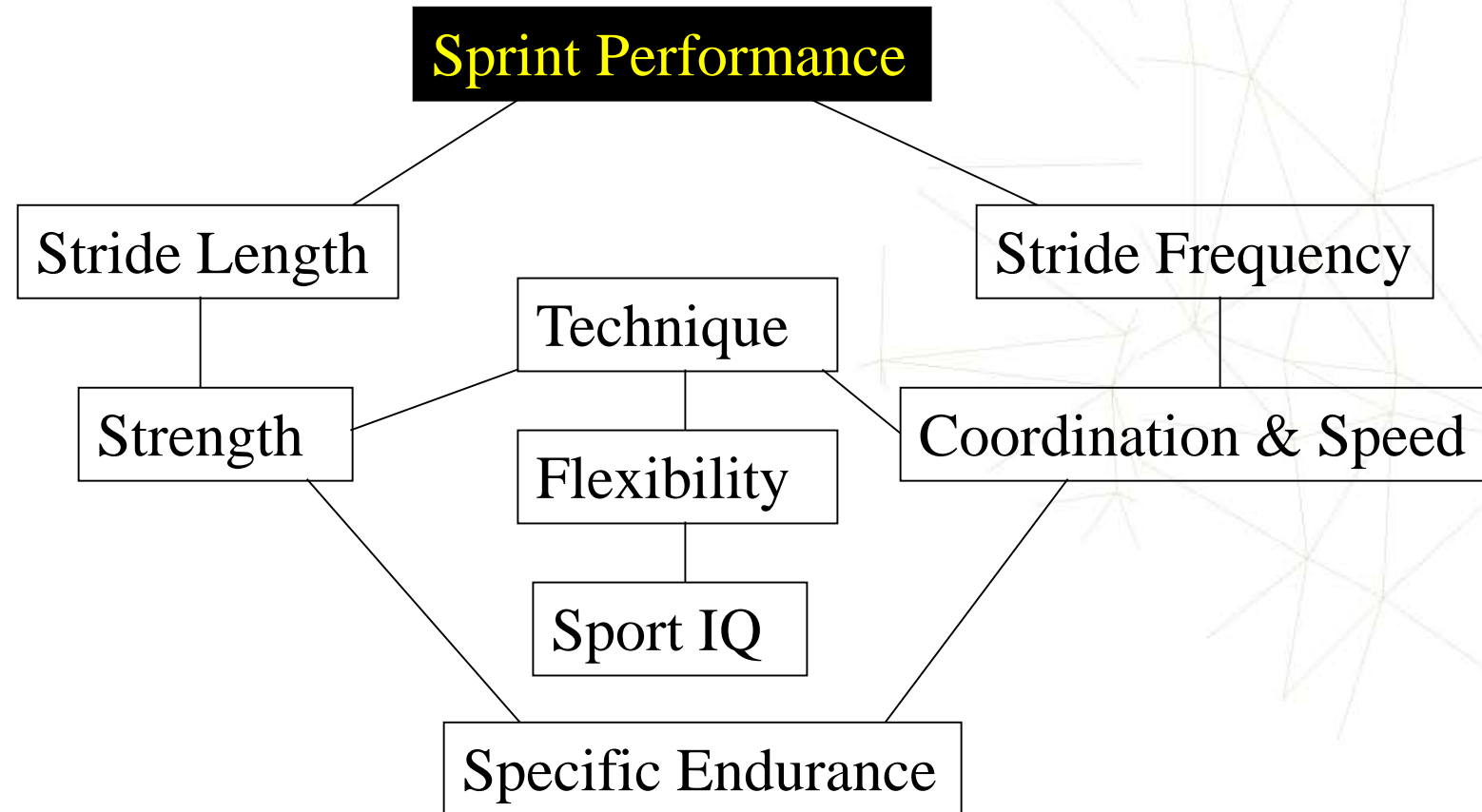


Definition of Speed

- The ability to move the body or parts of the body through the required range of motion in the least amount of time or to solve specific movement tasks in the shortest possible time.
 - National Strength and Conditioning Association
- Sprint Performance Model

CAN YOU TRAIN FOR SPEED?

Sprint Performance Model



Stride Frequency

- Definition

- The number of strides (steps) taken in a given amount of time.
 - National Strength and Conditioning Association

- How is it developed?

- Genetics
 - Pick your parents
- Coordination & Speed
- Overspeed Training



Coordination & Speed

- Movement Awareness
 - Combination of Skills
- Body Awareness
 - Reaction to outside stimulus
- Isolateral Exercises
- Rehab/Prehab
- Intensity
 - As fast as possible



Competitive Speed Groups

SKILL	1	2	3	4	5	6	7	8
Flight 1	Jackson, D.	Eriksen, I.	Bossard, B.	Harris, L.	Tillman, R.	Russell, D.	Vann, S.	Mack, T.
Flight 2	Lewis, J.	Banham, B.	Creel, D.	Stone, A.	Gist, T.	Williams, J.	Davis, K.	Gordon, T.
Flight 3	Pulliam, D.	Fuller, I.	Pace, Q.	McCormick, B.	Strange, K.	Giraldo, J.	Bell, R.	Beck, J.
Flight 4	Flanders, M.	Echols, J.	Abbott, A.	Hullibarger, A.	Calderon, I.	Bouldin, C.	Roback, B.	Spearman, I.
MID	1	2	3	4	5	6	7	8
Flight 5	Bushman, D.	Barakat, Y.	Williams, D.	Brown, A.	G-Rodriguez, G.	Ibe, G.	Zappone, A.	Onda, T.
Flight 6	Adams, N.	Moon, D.	Matt, H.	Gardner, C.	Houston, A.	Dawson, C.	Mulder, D.	Rachwal, K.
Flight 7	O'Connor, P.	Harris, J.	Renius, B.	Robinson, L.	Holford, C.	Hendricks, C.	O'Risky, C.	Oraha, I.
Flight 8								
BIG	1	2	3	4	5	6	7	8
Flight 9	Conway, L.	Barnes, A.	Felder, R.	Pipkins, A.	Collins, K.	Powell, D.	Armstrong, K.	Brown, M.
Flight 10	Miles, D.	Bukoski, C.	Tallman, D.	Wylie, A.	Hickey, J.	McIntire, C.	Thornton, M.	Dunlap, D.
Flight 11								
Flight 12								

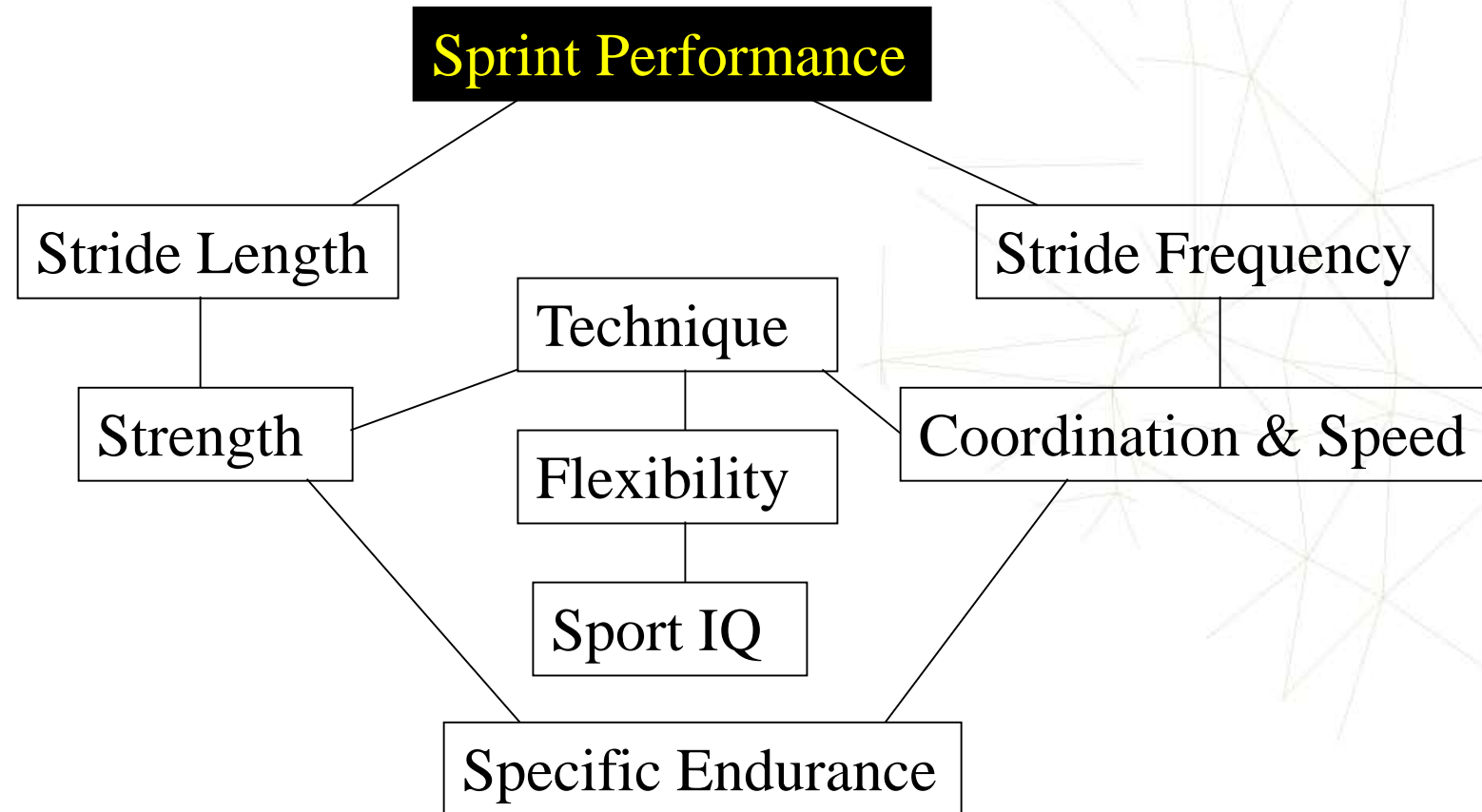


Overspeed Training

- Drills
 - Speed Ladder
 - Downhill Runs
 - Bungee
 - Load Releases



Sprint Performance Model



Stride Length

- Definition
 - The distance covered in one stride during running
 - National Strength & Conditioning Association
- How is it developed?
 - Overload Training
 - Strength



Overload Training

- Drills
 - Uphill Runs/Stadium Runs
 - Sled Pulls
 - Towing Harnesses
 - Parachutes



Strength/Power

- Olympic Lifting/Total Body Movements
- Multiple Joint Movements
- Single Joint Movements
- Plyometrics



Olympic Lifting/Total Body

- Power Clean
 - Teaching Progression
 - Deadlift
 - Deadlift Shrug
 - High Pull
 - Front Squat
 - Drop Clean
 - Tech Clean
 - Power Clean
- Snatch
- Push Jerk
- Jammer



Multiple Joint Movements

- Squat
- Austin Sled
- Leg Press
- V-Squat
- Lunge
- Step-Up
- Single Leg Squat



Single Joint Movements

- Leg Extension
- Leg Curls
- 4 Way Hip
- RDL
- Abduction
- Adduction
- Calf Raise
- Dorsiflexion



4 Day Template

	Day 1 Upper Body	Day 2 Lower Body	Day 3 Upper Body	Day 4 Lower Body	Key
1st Quarter	U-MJ Chest	Total Body	Total Body	L-MJ BL Push	MJ = Multiple Joint SJ = Single Joint BL = Bilateral UL=Unilateral
	Metabolic x3	Metabolic x3	Metabolic x3	Metabolic x3	
	Mobility x3	Mobility x3	Mobility x3	Mobility x3	
2nd Quarter	U-MJ BL Pull (H)	L-MJ BL Push	U-MJ BL Push	L-MJ BL Pull	
	U-MJ BL Push (V)	L-MJ BL Pull	U-MJ BL Pull (V)	L-MJ BL Push	
3rd Quarter	U-MJ Pull (V)	L-MJ UL Push	U-MJ UL Push (V)	L-MJ UL Pull	2nd Quarter
	U-MJ Push	L-MJ UL Pull	U-MJ UL Pull (H)	L-MJ UL Push	Rectus x50 reps
4th Quarter	SJ Chest	SJ Quad	SJ Chest	SJ Quad	Transverse x50 reps
	SJ Back	SJ Hamstring	SJ Back	SJ Hamstring	
	SJ Tricep	SJ Glute	SJ Tricep	SJ Glute	3rd Quarter
	SJ Bicep	SJ Groin	SJ Bicep	SJ Groin	Oblique x50 reps
	SJ Shoulder	SJ Lower Leg	SJ Shoulder	SJ Lower Leg	Erector Spinae x50
OT - Pre/Post	3-Way Neck	3-Way Neck	3-Way Neck	3-Way Neck	
	Grip	Grip	Grip	Grip	

3 Day Template

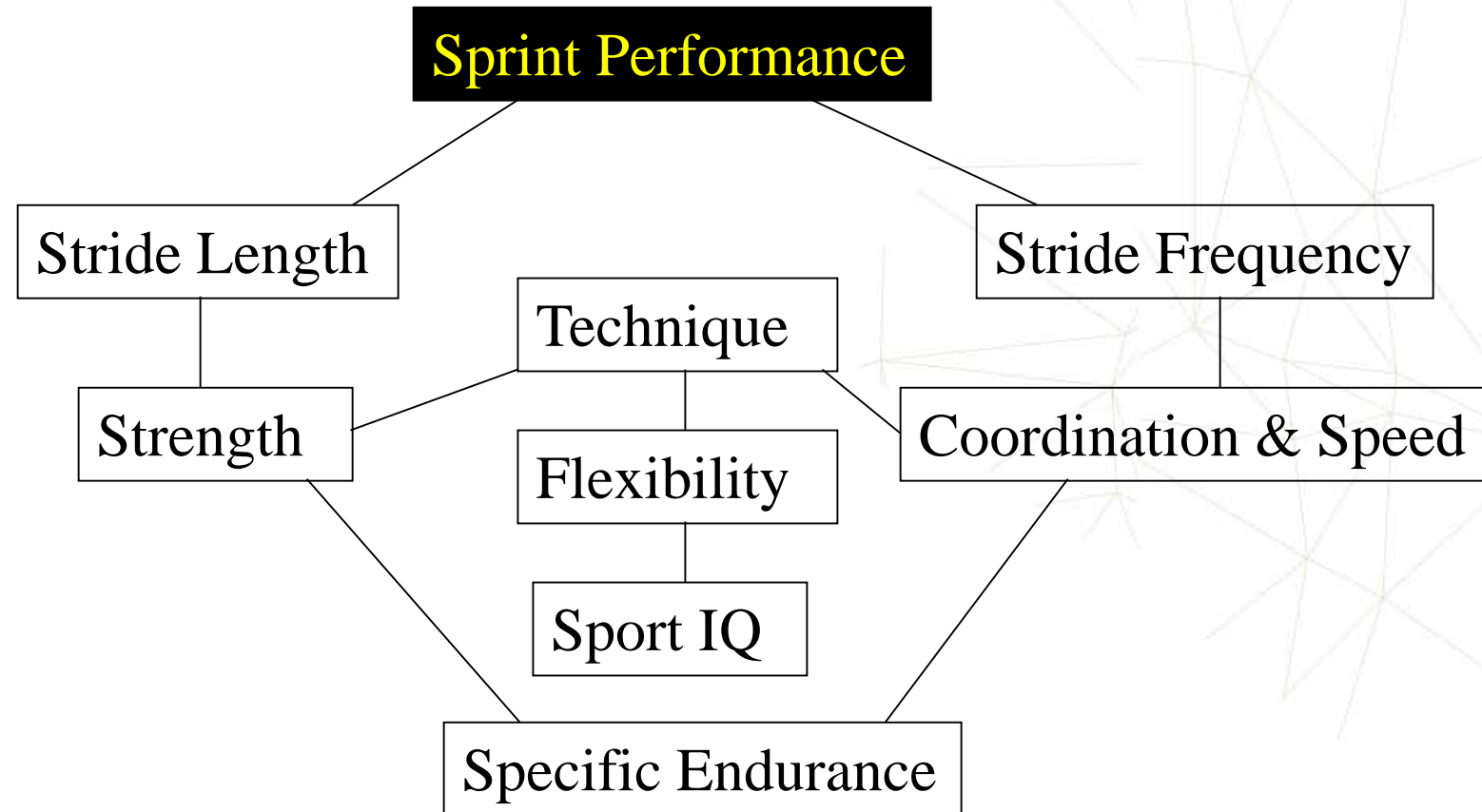
	Day 1	Day 2	Day 3	
Max Effort	T-Total Body BL	U-MJ BL Push	L-MJ BL Pull	Max Effort = 85-100% 1RM
Dynamic Effort	L-MJ BL Push	T-MJ BL Pull	U-MJ BL Push	Dynamic Effort = 50-65% 1RM
Submaximal Effort	U-MJ Push UL	L-MJ Push/Pull UL	MJ Total UL	Sub Max Effort = 60-80% 1RM
Repetitive Effort	T-Total Body UL	U-MJ Pull UL	L-MJ BL Pull	Repetitive Effort = 40-60% 1RM
Repetitive Effort	L-MJ Push/Pull U	T- MJ Total UL	U-MJ Pull (V)	Time Under Tension =
Time Under Tension	SJ Hamstring	SJ Chest	SJ Quad	Upper Body - 40 70 sec.
	SJ Groin	SJ Back	SJ Lower Leg	Lower Body - 60-90 sec.
	SJ Shoulder	SJ Tricep	SJ Bicep	

Plyometrics

- Benefits
- Programming
 - Week 1 = 100 Contacts
 - Week 2 = 120 Contacts
 - Week 3 = 140 Contacts
 - Week 4 = 160 Contacts



Sprint Performance Model



Technique

- PAL Paradigm
 - Posture – position and alignment of the body
 - Lean Falls
 - Arm Action – the position and amplitude of movement of the arms and hands
 - Seated Arm Action
 - Leg Action – the action of the foot, ankle, knee, and hip.
 - Wall Sprints



Hip Mobility

- Dynamic Warm-Up
- Hurdles
- Wall Leg Swings
 - Flexion/Extension
 - Adduction/Abduction



Sport IQ

- Game Plan
- Film Study
 - Tendencies
- Repetitions



Specific Endurance

- Anaerobic Conditioning
- Drills
 - 30x40 yds (7,6,5)
 - 20x60 yds. (11,10,9)
 - 12x100 yds. (18,16,14)
 - Sprint Ladder
4x10,20,40,60,80,100 yds.
 - Gassers (45,43,41)
 - Half Gassers (20,18,16)
 - Crossfields (10,9,8)

Sample Workout

- Monday
 - Team Flex
 - Team Dynamic Warm-Up/Speed Improvement
 - Group 1 Starts & Acceleration (4 minutes)
 - Group 2 In Place Plyometrics (4 minutes)
 - Group 3 Overload (4 minutes)
 - Anaerobic Conditioning/Competitive Speed Groups
 - Team Lift

Sample Workout

- Wednesday
 - Team Flex
 - Team Dynamic Warm-Up/Speed Improvement
 - Group 1 Technique & Foot Quickness(4 minutes)
 - Group 2 Movement Plyometrics (4 minutes)
 - Group 3 Overspeed (4 minutes)
 - Anaerobic Conditioning/Position Speed Groups
 - Team Lift

Sample Workout

- Tuesday & Thursday
 - Team Flex
 - Team Dynamic Warm-Up/Speed Improvement
 - Anaerobic Conditioning/Lateral Speed & Agility
 - A.M Agilities/P.M OTA
 - 8 four minutes stations
 - 4 five minute Competitive stations

Sample Week

Week 1	<p>MONDAY Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes)</p> <p>Group 1: Starts/Acceleration (4:00 minutes) Cadence Start w/1-Step x2 Cadence Start 2x20yds Push-Up Start 2x20yds</p> <p>Group 2: Overload (4:00 minutes) Prowler March 4-6x20yds</p> <p>Group 3: Plyometrics-Stationary (4:00 minutes) 100 Contacts Stabilize Ankle Flips 2x10 reps Butt Kick Jumps 2x10 reps Tuck Jumps 2x10 reps Skater Jumps 2x10 reps Split Squat Jumps-Stabilize 2x10 reps</p> <p>Team: Conditioning 100's x 6 660yds. (18,16,14)</p>	<p>TUESDAY Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes) Agility/Combine Prep: 60 Shuttle x2 Pro Agility x2 (Teach)</p> <p>Agility Prep: Station 1 (4:00 minutes): Tire Flips Station 2 (4:00 minutes): 6 Cone Station 3 (4:00 minutes): 6 Bag Station 4 (4:00 minutes): 3 Cone Wheel (Teach)</p>	<p>THURSDAY Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes)</p> <p>Group 1: Tech/Footspeed/Mobility (4:00 minutes) Hurdle In Place 8 Drills x:10secs =:80secs Seated Arm Action 2x20secs. Speed Ladder 4-6 Drills</p> <p>Group 2: Overspeed (4:00 minutes) Bungee 4-6x30yds</p> <p>Group 3: Plyometrics-Movement (4:00 minutes) 100 Contacts Broad Jumps w/Stabilization 2x20yds. Alternate Bounding for Distance 2x20yds. Lunge Jumps 2x20yds Backward Broad Jump 2x20yds. Hurdle Hop 2x3 Hurdles w/10yd Sprint</p> <p>Team: Conditioning 340's/280's x 4 1360/1120 yds. (60sec)</p>
	<p>Week 2</p> <p>Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes)</p> <p>Group 1: Starts/Acceleration (4:00 minutes) Cadence Start w/1-Step x1 Cadence Start 1x20yds Push-Up Start 4x20yds Push Up Cadence Push Up Reaction Back Push Up Reactionx2</p> <p>Group 2: Overload (4:00 minutes) Chain Sprints x4-6 3 Chais 20yds</p> <p>Group 3: Plyometrics-Stationary (4:00 minutes) 100 Contacts Sprint Out Ankle Flips 2x10 reps Butt Kick Jumps 2x10 reps Tuck Jumps 2x10 reps Squat Jumps 2x10 reps Split Squat Jumps Continuous 2x10 reps</p> <p>Team: Conditioning 80's x 8 640yds. (15,13,11)</p>	<p>Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes) Agility/Combine Prep: 60 Shuttle x2 Pro Agility x2</p> <p>Agility Prep: Station 1 (4:00 minutes): Cage Station 2 (4:00 minutes): Farmers Walks Station 3 (4:00 minutes): 4 Cone Station 4 (4:00 minutes): Speed Ladder</p>	<p>Dynamic Warm-Up (4:00 minutes) Team Flex (8 minutes)</p> <p>Group 1: Tech/Footspeed/Mobility (4:00 minutes) Wall Mobility 8 Drills x:10secs =:80secs Wall Sprint 2x20secs. Jump Rope 8 Drills x:10secs =:80secs.</p> <p>Group 2: Overspeed (4:00 minutes) Partner Load Releases 4-6x 4yds-Sprint 20yds</p> <p>Group 3: Plyometrics-Movement (4:00 minutes) 120 Contacts Broad Jumps Consecutive 2x20yds. SL Broad Jumps w/Stabilization 2x20yds Alternate Bounding for Height 2x20yds. Lateral Hops 2x20yds Speed Skaters Stabilize 2x20yds Hurdle Hop 2x4 Hurdles w/10yd Sprint</p> <p>Team: Conditioning Gassers x 4 848 yds. (45,43,41)</p>

Lateral Speed & Agility

- Winter
 - Jan/Feb
 - 8 Stations
 - 4 Stations
- Summer
 - Day 1
 - Cone Drills
 - Combine
 - Day 2
 - Resistance
 - Pattern
 - Position Work



Focus Points

- Linear vs. Lateral
- Train Speed Year Round
- Decide what works best for your program
- Variety
- COACH!!!!!!!



References

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- Baechle, Thomas R. (1994). Essentials of Strength and Conditioning. Champaign, Illinois: Human Kinetics
- Gambetta, V., & Winckler, Gary. (2001). Sports Specific Speed. Sarasota, Florida: Gambetta Sports Training Systems

Thank You!!!

- Questions?
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