



CSCA: Programming Checklist

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CANADIAN STRENGTH & CONDITIONING ASSOCIATION

PROGRAMMING CHECKLIST

1. Who are you working with?
2. What does their sport require them to do?
3. What does their current fitness level tell us?
4. Where are we at in the training year?
5. What will the entire week of training/competition include and what S&C is feasible based on their schedule and logistics?
6. When in the day will the training session occur?
7. What will your focus of training be?
8. What movement categories will you utilize and in what arrangement throughout the week and in what order during each training session?
9. What exercises will you select for each movement category in your template?
10. What is your training prescription?
11. How will you progress your training stimulus?
12. What warmup will you prescribe based on the designed training session?
13. How will you monitor performance and the effect of training?
14. What cues will you utilize for each prescribed movement?
15. What recovery strategies will you use?

CANADIAN STRENGTH & CONDITIONING ASSOCIATION

1. WHO ARE YOU WORKING WITH?

PRE-SCREENING

- Par-Q+
- Informed consent
- Health/Medical Questionnaires
- Personal Questionnaire
- Beginner/Intermediate/Advanced

PAR-Q+

The Physical Activity Readiness Questionnaire for Everyone

Regular physical activity is fun and healthy, and more people should become more physically active every day of the week. Being more physically active is very safe for MOST people. This questionnaire will tell you whether it is necessary for you to seek further advice from your doctor OR a qualified exercise professional before becoming more physically active.

SECTION 1 - GENERAL HEALTH

	Please read the 7 questions below carefully and answer each one honestly: check YES or NO.	YES	NO
1.	Has your doctor ever said that you have a heart condition OR high blood pressure?	☐	☐
2.	Do you feel pain in your chest at rest, during your daily activities of living, OR when you do physical activity?	☐	☐
3.	Do you lose balance because of dizziness OR have you lost consciousness in the last 12 months? Please answer NO if your dizziness was associated with over-breathing (including during vigorous exercise).	☐	☐
4.	Have you ever been diagnosed with another chronic medical condition (other than heart disease or high blood pressure)?	☐	☐
5.	Are you currently taking prescribed medications for a chronic medical condition?	☐	☐
6.	Do you have a bone or joint problem that could be made worse by becoming more physically active? Please answer NO if you had a joint problem in the past, but it does not limit your current ability to be physically active. For example, knee, ankle, shoulder or other.	☐	☐
7.	Has your doctor ever said that you should only do medically supervised physical activity?	☐	☐

If you answered NO to all of the questions above, you are cleared for physical activity.

Health/Medical Questionnaire

Date: _____

Name: _____ Date of birth: _____ Soc. Sec. #: _____

Address: _____
Street City State Zip

Phone (H): _____ (W): _____ E-mail address: _____

In case of emergency, whom may we contact?

Name: _____ Relationship: _____

Phone (H): _____ (W): _____

Personal physician

Name: _____ Phone: _____ Fax: _____

Present/Past History

Have you had OR do you presently have any of the following conditions? (Check if *yes*.)

___ Rheumatic fever
___ Recent operation
___ Edema (swelling of ankles)
___ High blood pressure
___ Injury to back or knees
___ Low blood pressure
___ Seizures
___ Lung disease
___ Heart attack
___ Fainting or dizziness with or without physical exertion
___ Diabetes
___ High cholesterol
___ Orthopnea (the need to sit up to breathe comfortably) or paroxysmal (sudden, unexpected attack) nocturnal dyspnea (shortness of breath at night)
___ Shortness of breath at rest or with mild exertion
___ Chest pains
___ Palpitations or tachycardia (unusually strong or rapid heartbeat)
___ Intermittent claudication (calf cramping)
___ Pain, discomfort in the chest, neck, jaw, arms, or other areas with or without physical exertion
___ Known heart murmur
___ Unusual fatigue or shortness of breath with usual activities
___ Temporary loss of visual acuity or speech, or short-term numbness or weakness in one side, arm, or leg of your body
___ Other

Family History

Have any of your first-degree relatives (parent, sibling, or child) experienced the following conditions? (Check if *yes*.) In addition, please identify at what age the condition occurred.

___ Heart arrhythmia
___ Heart attack
___ Heart operation
___ Congenital heart disease
___ Premature death before age 50
___ Significant disability secondary to a heart condition
___ Marfan syndrome
___ High blood pressure
___ High cholesterol
___ Diabetes
___ Other major illness _____

From NSCA, 2012, *NSCA's essentials of personal training*, 2nd ed., J. Coburn and M. Malek (eds.), (Champaign, IL: Human Kinetics).

Explain checked items: _____

Activity History

1. How were you referred to this program? (Please be specific.) _____
2. Why are you enrolling in this program? (Please be specific.) _____
3. Are you presently employed? Yes ___ No ___
4. What is your present occupational position? _____
5. Name of company: _____
6. Have you ever worked with a personal trainer before? Yes ___ No ___
7. Date of your last physical examination performed by a physician:
8. Do you participate in a regular exercise program at this time? Yes ___ No ___ If yes, briefly describe: _____
9. Can you currently walk 4 miles briskly without fatigue? Yes ___ No ___
10. Have you ever performed resistance training exercises in the past? Yes ___ No ___
11. Do you have injuries (bone or muscle disabilities) that may interfere with exercising? Yes ___ No ___ If yes, briefly describe: _____
12. Do you smoke? Yes ___ No ___ If yes, how much per day and what was your age when you started? Amount per day _____ Age _____
13. What is your body weight now? ___ What was it one year ago? ___ At age 21? ___
14. Do you follow or have you recently followed any specific dietary intake plan, and in general how do you feel about your nutritional habits? _____
15. List the medications you are presently taking. _____
16. List in order your personal health and fitness objectives.
    a. _____
    b. _____
    c. _____

From NSCA, 2012, *NSCA's essentials of personal training*, 2nd ed., J. Coburn and M. Malek (eds.), (Champaign, IL: Human Kinetics).

TABLE 17.1 Example of Classifying Resistance Training Status

Resistance training status	Resistance training background: Current program	Training age	Frequency (per week)	Training stress*	Technique experience and skill
Beginner (untrained)	Not training or just began training	<2 months	≤1-2	None or low	None or minimal
Intermediate (moderately resistance trained)	Currently training	2-6 months	≤2-3	Medium	Basic
Advanced (well resistance trained)	Currently training	≥1 year	≥3-4	High	High

*In this example, "training stress" refers to the degree of physical demand or stimulus of the resistance training program.

1. Create a general goal for yourself
2. Use the SMART process to refine the goal
3. Identify barriers to the goal
4. Create process goals to help you achieve your outcome

NSCA -National Strength & Conditioning Association. (2021). *Essentials of Strength Training and Conditioning* (Fourth ed.). Human Kinetics.

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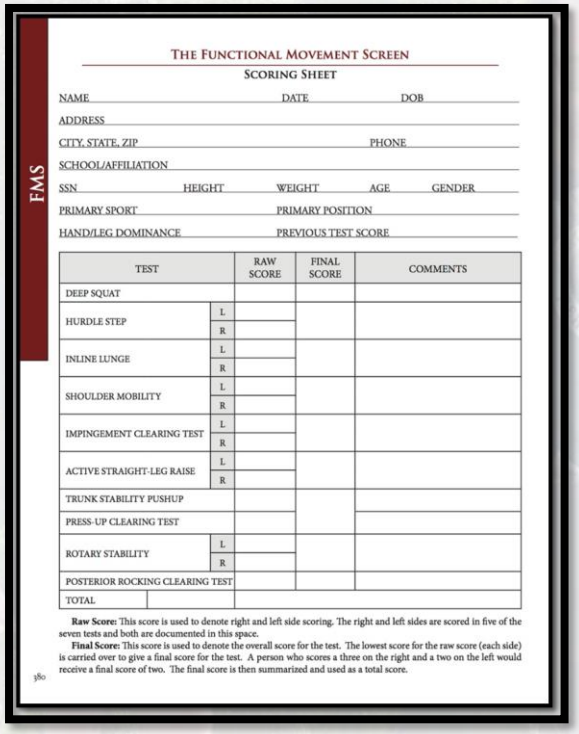
MOVEMENT SCREEN

- FMS
- Modified Movement Screen
- Physical Literacy Screen



THE FUNCTIONAL MOVEMENT SCREEN

SCORING SHEET

FMS

NAME DATE DOB

ADDRESS

CITY, STATE, ZIP PHONE

SCHOOL/AFFILIATION

SSN HEIGHT WEIGHT AGE GENDER

PRIMARY SPORT PRIMARY POSITION

HAND/LEG DOMINANCE PREVIOUS TEST SCORE

TEST		RAW SCORE	FINAL SCORE	COMMENTS
DEEP SQUAT				
HURDLE STEP	L			
	R			
INLINE LUNGE	L			
	R			
SHOULDER MOBILITY	L			
	R			
IMPINGEMENT CLEARING TEST	L			
	R			
ACTIVE STRAIGHT-LEG RAISE	L			
	R			
TRUNK STABILITY PUSHUP				
PRESS-UP CLEARING TEST				
ROTARY STABILITY	L			
	R			
POSTERIOR ROCKING CLEARING TEST				
TOTAL				

Raw Score: This score is used to denote right and left side scoring. The right and left sides are scored in five of the seven tests and both are documented in this space.

Final Score: This score is used to denote the overall score for the test. The lowest score for the raw score (each side) is carried over to give a final score for the test. A person who scores a three on the right and a two on the left would receive a final score of two. The final score is then summarized and used as a total score.

980

- **0** • Pain
- **1** • Inability to complete the movement
- **2** • Can perform the pattern but with compensation
- **3** • Can perform pattern as directed

MODIFIED MOVEMENT SCREEN

Ankle Mob: Knee to Wall	Shoulder Ov/Un Screen	Seated Hip Internal Rotation	Active Straight Leg Raise	Single Leg Drop Land (12″)	Thoracic Rotation

PHYSICAL LITERACY SCREEN

Pistol Squat =5 reps	Single Leg RDL =5 reps	Cossack Squat =5 reps	Bottoms Up Pushup =10 reps	BB Inverted Row (90°) =10 reps

2. WHAT DOES THEIR SPORT REQUIRE THEM TO DO?

NEEDS ANALYSIS

Biodynamics

-Specific positions by sport position

-Posture required

- Shapes required for successful execution

-Dynamic correspondence

Bioenergetics

- Energy system utilization

- Work:Rest

Biomotor

-Speed

-Power

-Strength

-Stamina

etc.

Injury Patterns

-Common injures by position

-What occurs when injury happens (ie. position, contact, muscle contraction)

Measure	Offence	Defence
Number of Possessions	20	18
Average Number of Plays per Possession	3.8	2.9
Average Length of Play (s)	5.41	6.33
Longest Play (s)	11.0	10.01
Shortest Play (s)	2.30	3.51
Average Length of Playing time per possession* (s)	20.6	18.38

*- Calculated by multiplying the average length of the play by the average number of plays in each possession

2. WHAT DOES THEIR SPORT REQUIRE THEM TO DO?

ASSESSMENT

ANTHROPOMETRY

- Height
- Wingspan
- Weight
- Bodyfat Percentage

POWER

- Vertical Jump (Jump Mat)
- Vertical Jump (Vertec)
- Block Jump (Vertec)
- Spike/Approach Jump (Vertec)
- Broad Jump (Turf)
- Single Leg Broad Jump (Turf)
- Single Leg Triple Broad Jump (Turf)
- Trap Bar Jump Relative Peak Power
- Jammer Peak Power
- Drop Jump RSI (6 DC Blocks)

CHANGE OF DIRECTION

- Modified 5-0-5
- 3-6-3 Modified Pro Agility
- 5-10-5 Pro Agility Drill
- 3 Cone L Drill

SPEED

- 10y Sprint
- 10m Sprint
- 15y Sprint
- 15m Sprint
- 10-10y Flying Sprint
- 10-10m Flying Sprint
- 20-10y Flying Sprint
- 20-10m Flying Sprint
- 30-10y Flying Sprint
- 30-10m Flying Sprint
- 40y Sprint
- 40m Sprint
- 4 Plate 10y Sled Push

CONDITIONING

- YoYo IRL1
- 300y Shuttle
- Vanier 2.0
- Bronco Test

STRENGTH ENDURANCE

- 225 Bench Press
- Chinups

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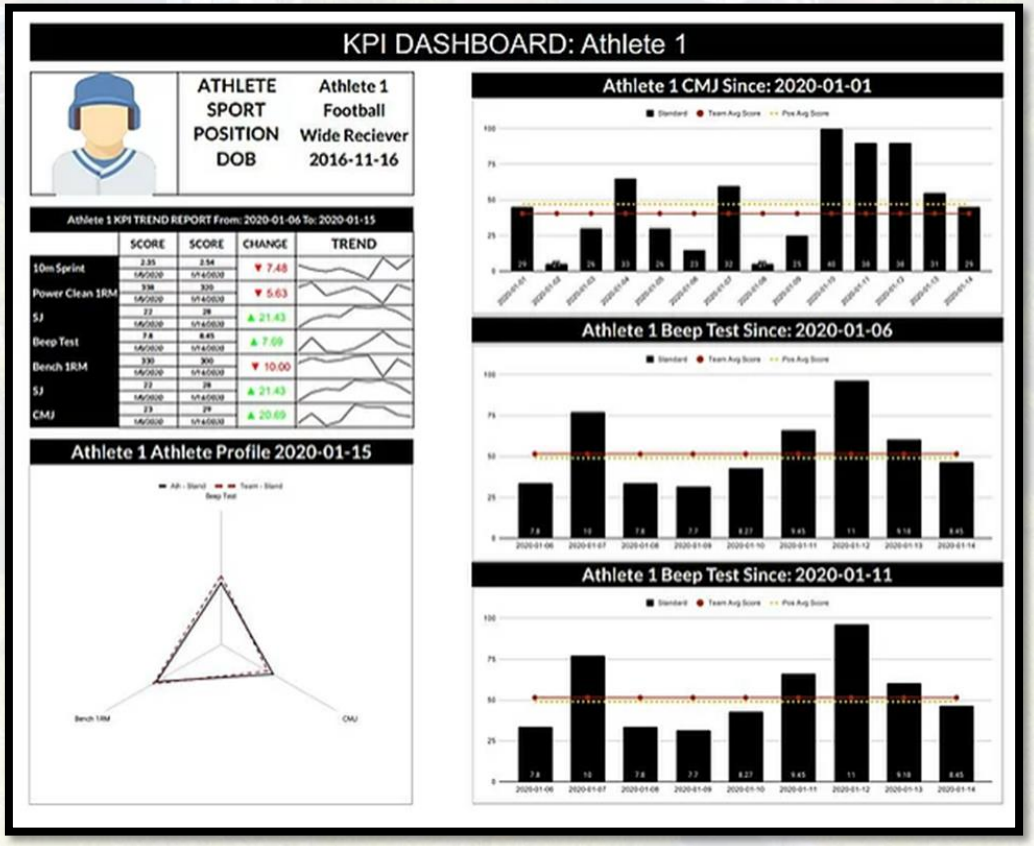
3. WHAT DOES THEIR CURRENT FITNESS LEVEL TELL US?

	MOVEMENT COMPETENCY		WORK CAPACITY	RELATIVE STRENGTH						POWER		SPEED & COD		
Guard	**MOV. SCREEN**	**PHYS. LIT. SCREEN**	**YOYO**	**1RM BENCH**	**1RM CHIN**	**1RM FRONT SQUAT**	**1RM BACK SQUAT**	**1RM REV LUNGE**	**1RM TRAP BAR**	**VERTICAL JUMP**	**BROAD JUMP**	**10M SPRINT**	**20M SPRINT**	**MODIFIED 5-0-5**
Elite	30 (max 1 assy.)	24 (max 1 assy.)	19.1	1x	1.3x	1.55x	1.8x	1.45x	2.2x	22.1	6'9" (208cm)	1.77		
Queen's	22 (max 1 assy.)	22 (max 1 assy.)	17.1	0.8x	1.15x	1.3x	1.65x	1.2x	1.7x	20.8	6'8" (204cm)	1.81		
Forward	**MOV. SCREEN**	**PHYS. LIT. SCREEN**	**YOYO**	**1RM BENCH**	**1RM CHIN**	**1RM FRONT SQUAT**	**1RM BACK SQUAT**	**1RM REV LUNGE**	**1RM TRAP BAR**	**VERTICAL JUMP**	**BROAD JUMP**	**10M SPRINT**	**20M SPRINT**	**MODIFIED 5-0-5**
Elite	30 (max 1 assy.)	24 (max 1 assy.)	18.1	0.95x	1.25x	1.5x	1.75x	1.4x	2.1x	22.5	7'2" (218cm)	1.73		
Queen's	22 (max 1 assy.)	22 (max 1 assy.)	16.5	0.75x	1.1x	1.25x	1.6x	1.15x	1.65x	21.1	6'7" (201cm)	1.81		
Centre	**MOV. SCREEN**	**PHYS. LIT. SCREEN**	**YOYO**	**1RM BENCH**	**1RM CHIN**	**1RM FRONT SQUAT**	**1RM BACK SQUAT**	**1RM REV LUNGE**	**1RM TRAP BAR**	**VERTICAL JUMP**	**BROAD JUMP**	**10M SPRINT**	**20M SPRINT**	**MODIFIED 5-0-5**
Elite	30 (max 1 assy.)	24 (max 1 assy.)	17.1	0.9x	1.15x	1.3x	1.7x	1.2x	2x	18.4	6'8" (203cm)	1.95		
Queen's	22 (max 1 assy.)	22 (max 1 assy.)	16.1	0.7x	1x	1.1x	1.55x	1x	1.6x	17.2	6'5" (196cm)	1.97		



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4. WHERE ARE WE AT IN THE TRAINING YEAR?

FALL SPORTS
(FBALL, ROWING, XC, SOCCER, RUGBY)

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
OFFSEASON GPP			TRANS	OFFSEASON SPP			INSEASON				TRANS

2 TERM SPORTS
(BBALL, VBALL, HOCKEY)

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
INSEASON 2			TRANS	OFFSEASON GPP		OFFSEASON SPP		PRE	INSEASON 1		TRANS

TABLE 17.2 Example of General Training Priorities by Sport Season

Sport season	Priority given to: Sport practice	Priority given to: Resistance training	Resistance training goal*
Off-season	Low	High	Hypertrophy and muscular endurance (initially); strength and power (later)
Preseason	Medium	Medium	Sport and movement specific (i.e., strength, power, or muscular endurance, depending on the sport)
In-season	High	Low	Maintenance of preseason training goal
Postseason (active rest)	Variable	Variable	Not specific (may include activities other than sport skill or resistance training)

*The actual training goals and priorities are based on the specific sport or activity and may differ from the goals listed here.

NSCA -National Strength & Conditioning Association. (2021). *Essentials of Strength Training and Conditioning* (Fourth ed.). Human Kinetics.

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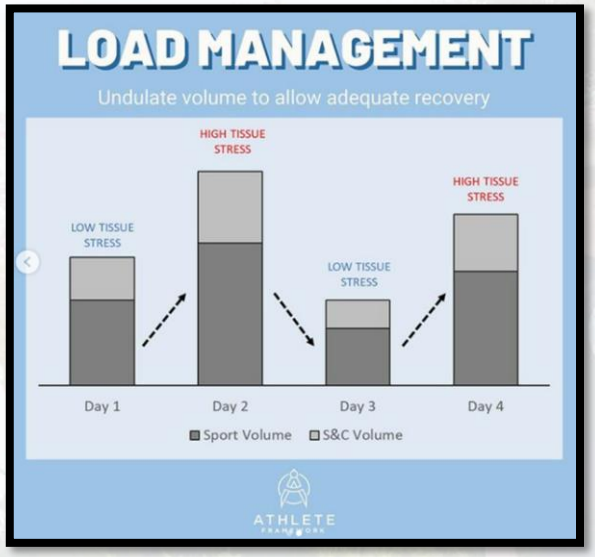
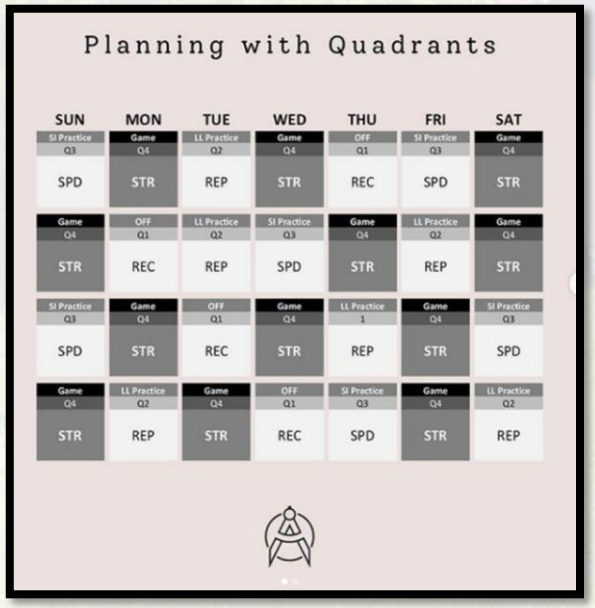
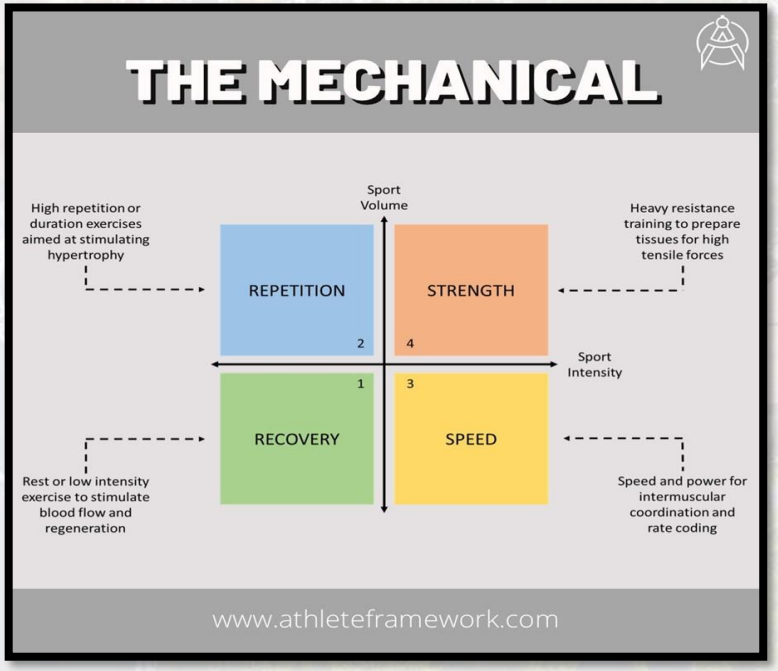
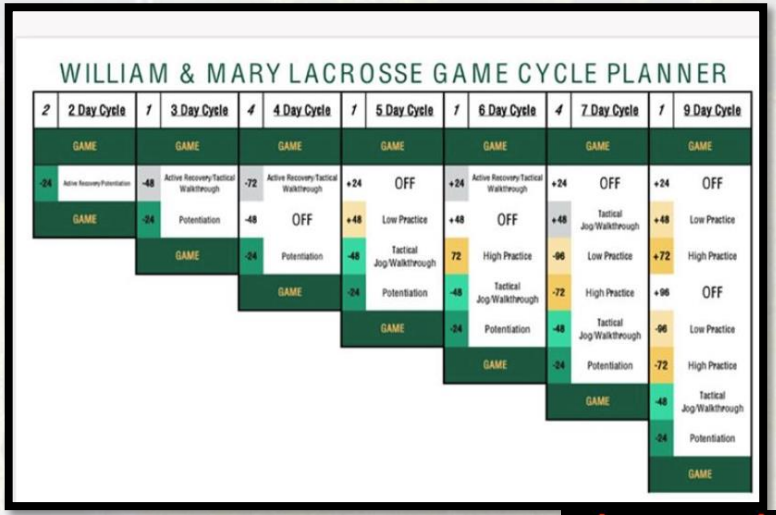
5. WHAT WILL THE ENTIRE WEEK OF TRAINING/COMPETITION INCLUDE AND WHAT S&C IS FEASIBLE BASED ON THEIR SCHEDULE AND LOGISTICS?









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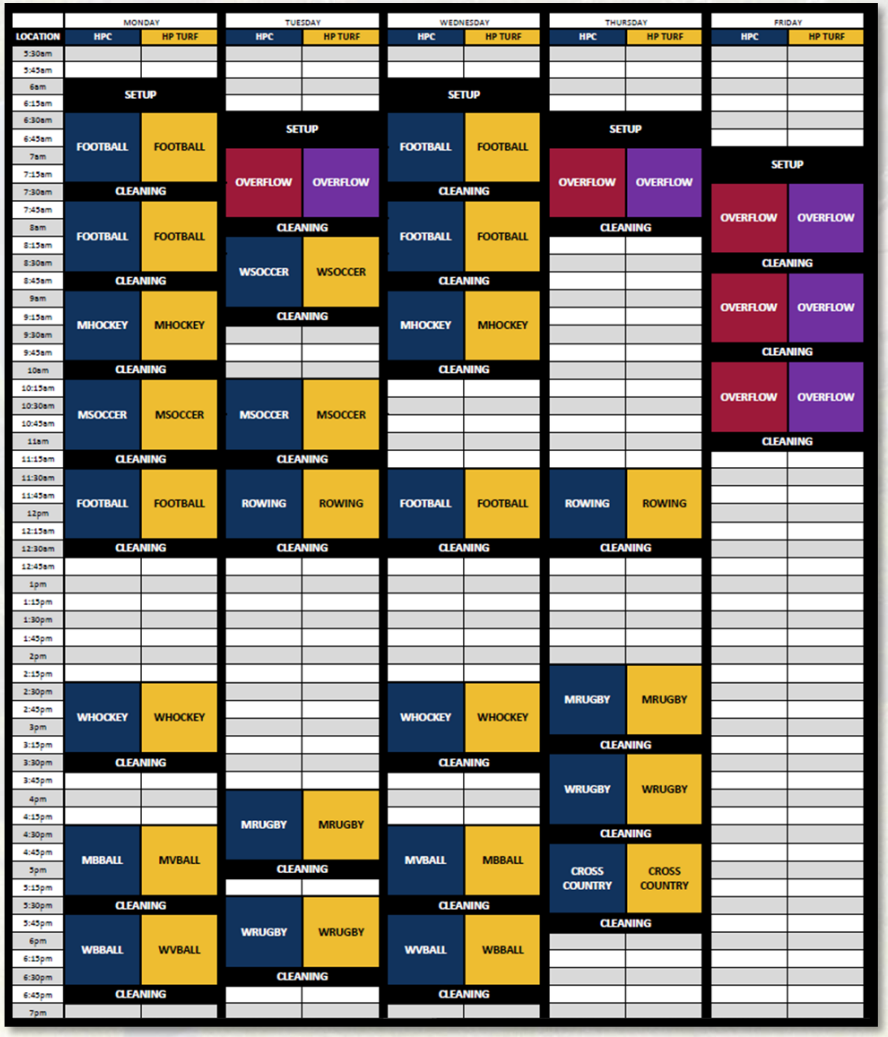
6. WHEN IN THE DAY WILL THE TRAINING SESSION OCCUR?

	Performance	Energy Levels
Early Morning	↓	↓
Late Morning	↑	↑
Pre-Practice	↑	↑
Post-Practice	↓	↓



LOCATION	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY	
	HPC	HP TURF	HPC	HP TURF	HPC	HP TURF	HPC	HP TURF	HPC	HP TURF
5:30am										
5:45am										
6am	SETUP				SETUP					
6:15am										
6:30am	FOOTBALL	FOOTBALL	SETUP		FOOTBALL	FOOTBALL	SETUP			
6:45am										
7am			OVERFLOW	OVERFLOW			OVERFLOW	OVERFLOW	SETUP	
7:15am					CLEANING					
7:30am	CLEANING		CLEANING				CLEANING		OVERFLOW	OVERFLOW
7:45am					FOOTBALL	FOOTBALL				
8am	FOOTBALL	FOOTBALL							CLEANING	
8:15am			WSOCCER	WSOCCER	CLEANING					
8:30am	CLEANING								OVERFLOW	OVERFLOW
8:45am			CLEANING		MHOCKEY	MHOCKEY				
9am	MHOCKEY	MHOCKEY							CLEANING	
9:15am					CLEANING					
9:30am	CLEANING								OVERFLOW	OVERFLOW
9:45am										
10am	MSOCCER	MSOCCER	MSOCCER	MSOCCER					CLEANING	
10:15am										
10:30am	CLEANING		CLEANING							
10:45am										
11am	FOOTBALL	FOOTBALL	ROWING	ROWING	FOOTBALL	FOOTBALL	ROWING	ROWING		
11:15am										
11:30am	CLEANING		CLEANING		CLEANING		CLEANING			
11:45am										
12pm										
12:15pm										
12:30pm										
12:45pm										
1pm										
1:15pm										
1:30pm										
1:45pm										
2pm										
2:15pm										
2:30pm	WHOCKEY	WHOCKEY			WHOCKEY	WHOCKEY	MRUGBY	MRUGBY		
2:45pm										
3pm	CLEANING				CLEANING		CLEANING			
3:15pm										
3:30pm							WRUGBY	WRUGBY		
3:45pm										
4pm			MRUGBY	MRUGBY			CLEANING			
4:15pm										
4:30pm	MBBALL	MVBALL	CLEANING		MVBALL	MBBALL	CROSS COUNTRY	CROSS COUNTRY		
4:45pm										
5pm	CLEANING				CLEANING		CLEANING			
5:15pm										
5:30pm			WRUGBY	WRUGBY						
5:45pm	WBBALL	WVBALL			WVBALL	WBBALL				
6pm			CLEANING							
6:15pm										
6:30pm	CLEANING				CLEANING					
6:45pm										
7pm										

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7. WHAT WILL YOUR FOCUS OF TRAINING BE?

Training Quality	Further From Peak	Closer to Peak
Mobility	Introduction of Concepts	Daily Practice
Athleticism	General Movements	Specific Movements
Resisted Sprinting/Acceleration	Heavier Load/Shorted Distances	Lighter Loads/Longer Distances
Max Velocity Sprinting	Shorter Distances/More Drills	Longer/More Volume/Curvilinear
COD/Agility	Pre-Planned Drills	Reactive Agility
Reactive Power	Low Complexity: Moderate Elasticity	High Complexity: High Elasticity
Loaded Power	Heavier Loading: Slower Contraction	Lighter Loading: Faster Contraction
Strength	Higher Rep: Lighter Weight	Lower Rep: Heaver Weight
Hypertrophy	Higher Volume	Lower Volume
Aerobic	Moderate: High Volumes	High: Moderate Volumes
Anaerobic/ Glycolytic Work	Longer Rest Breaks	Shorter Rest Breaks

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7. WHAT WILL YOUR FOCUS OF TRAINING BE?

Training Quality	Possible Training Methods
Mobility	FRC (CAR's/PAIL's & RAIL's), PNF, Joint Distractions
Athleticism	Locomotion Hierarchy, Balance, Crawling/Tumbling, Grappling
Resisted Sprinting/Acceleration	Bands, Prowlers, Sleds, Hills, Turf (Indoor vs. Outdoor), Grass, Mondo
Max Velocity Sprinting	Turf (Indoor vs. Outdoor), Grass, Mondo, Overspeed (ie. Downhill)
COD/Agility	Cone Drills, Mirror, Score, Dodge, Chase, Small Sided Games
Reactive Power	Plyometrics, Medicine Balls
Loaded Power	Trap Bar, Dumbbell, Barbell, Jammer, Keiser, Heavy Medicine Ball, Use of VBT
Strength	Maximal Strength (90%+), Accelerative Strength (80%+)
Hypertrophy	Volume Accumulation, Drop Sets, Complexes, Isometrics
Aerobic	Extensive Tempo Runs, Aerobic GPP Circuits, LSD, Maximal Aerobic Speed
Anaerobic/ Glycolytic Work	HIIT, Alactic Capacity Work

8. WHAT MOVEMENT CATEGORIES WILL YOU UTILIZE AND IN WHAT ARRANGEMENT THROUGHOUT THE WEEK AND IN WHAT ORDER DURING EACH TRAINING SESSION?

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5 IMPORTANT PROGRAMMING RULES

1)Large muscle groups before small

2)Multi-joint before single joint

3)Complex/Technical before simple

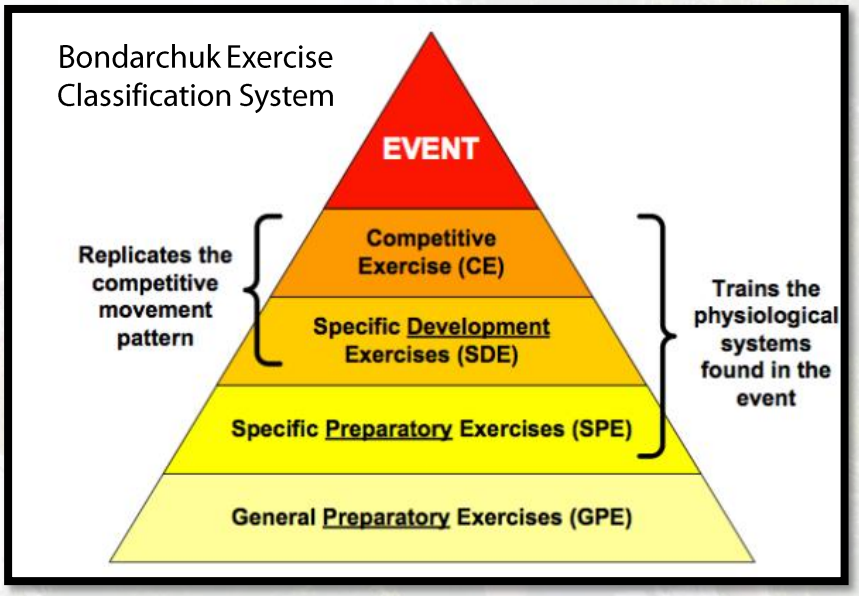
4)In General: Fast before slow

5)In General: Heavy before light

Example:

Day 1	Day 2
Lower Power	Full Body Power
Upper Power	Knee Dominant
Hip Dominant	Single Leg Hip Dominant
Single Leg Knee Dominant	Knee Dominant Posterior Chain
Upper Push Horizontal	Upper Push Vertical
Upper Pull Horizontal	Upper Pull Vertical
Anti Extension	Anti Flexion
Anti Rotation	Anti Lateral Flexion

9. WHAT EXERCISES WILL YOU SELECT FOR EACH MOVEMENT CATEGORY IN YOUR TEMPLATE?



Progression

Full Body Power

BW-MB-DB-Trap Bar-Barbell

Vertical Reactive Power (Examples)	Vertical Loaded Power	Olympic Lifting Variations	Medicine Ball	Overcoming Iso
Landing/Extensive	DB Jump (Reset)	Hang Clean Pull	Med Ball Vertical Scoop Throw	Split Squat (Below Hip→Axial Load)
Seated Box Jumps (Seated→Standing)	DB Jump (Reactive)	Hang Clean High Pull	Med Ball Forward Scoop Throw	Squat (Below Hip→Axial Load)
Box Jumps	Trap Bar Jump (Reset)	Hang Muscle Clean	Med Ball Overhead Scoop Throw	Run Specific Iso Push
In Place	Trap Bar Jump (Reactive)	Hang Power Clean	Med Ball Snap Down to Scoop Throw	Run Specific Iso Switch
Continuous	Weighted Split Stance Jump	Hang Power Clean Complexes	Med Ball Catch to Scoop Throw	
Over Object	Reactive Weighted Split Stance Jump	Clean Pull	Med Ball Depth Jump to Scoop Throw	Iso Sled Drive
Depth Jumps (to Box→to Ground→Over Object→Target)	Weight RFESS Plyo	Clean High Pull	Med Ball Forward Projection	
Drop Jumps (to Box→to Ground→Over Object→Target)	Reactive Weighted RFESS Plyo	Muscle Clean		Iso SSB Scrum Drive
Horizontal Reactive Power (Examples)	Single Arm DB Snatch	Power Clean	1/2 Kneeling Med Ball Wall Rotation	Iso Sled Scrum Drive
Band Resisted Broad Jumps	BB Jump (Reset)		Tall Kneeling Med Ball Wall Rotation	
Band Resisted Double Broad Jumps	BB Jump (Reactive)		Split Stance Med Ball Wall Rotation	
Bande Resisted Triple Broad Jumps			Bilateral Med Ball Wall Rotation	
Broad Jumps (Bilateral→Unilateral)			Bilateral Step to Med Ball Wall Rotation	
Double Broad Jumps (Bilateral→Unilateral)	**Horizontal Loaded Power**		Shuffle to Med Ball Wall Rotation	
Triple Broad Jumps (Bilateral→Unilateral)	KB Dead Swing		Jump Back to Med Ball Wall Rotation	
Penta Jumps (Bilateral)	KB Swing		Figure 8 Med Ball Wall Rotation	
ateral/Mulit-directional Reactive Power (Example	Banded KB Swing		Med Ball Toss to Med Ball Wall Rotation	
Banded Lateral Skater to Stick	Explosive Jammer Press			
Lateral Skater to Stick	Single Arm Jammer Press			
Lateral Skater to Return	Landmine Rotational Press			
Lateral Skater to Vertical to Return				
Lateral Skater to 45 Degree Bound				
Lateral Skater to Rotational Landing				
Lateral Skater to Broad Jump				

Progression

Upper Body Power

BW-MB-DB-Trap Bar-Barbell

Bodyweight	Loaded Power	Medicine Ball	Overcoming Iso
Incline Plyo Pushup	Dynamic Effort Bench Press	Med Ball Chest Drop	Iso-Dynamic Partner Pushup
Plyo Pushup	Seated Jammer Throw	Med Ball Bent Over Chest Pass	Overcoming Iso Bench Press
Band Assisted Plyo Pushup	Bench Throw	Med Ball Wall Chest Pass	Overcoming Iso Military Press
	1/2 Kneeling→Tall Kneeling Landmine Throw	Med Ball Shotput	Chest Supported Iso Plate Row
		Med Ball 3 Step Shotput	
	Dynamic Effort Bench Pull	Med Ball Jump Back Shotput	
	Pendlay Row	Med Ball Figure 8 Shotput	
	Keiser Power Pulldown	1/2 Kneeling Med Ball Slam	
		Tall Kneeling Med Ball Slam	
		Med Ball Slam	
		Rotational Med Ball Slam	
		Double Pump Med Ball Slam	

10. WHAT IS YOUR TRAINING PRESCRIPTION?

Prilepin's Chart

Percent	Reps/sets	Optimal	Total range
55–65	3–6	24	18–30
70–80	3–6	18	12–24
80–90	2–4	15	10–20
90+	1–2	4	10

Optimal Training Sequences to Develop Lower Body Force, Velocity, Power, and Jump Height: A Systematic Review with Meta-Analysis

Study Details

A review and meta-analysis of the literature that has compared acute and chronic athletic performance outcomes between different lower body training methods.

27 **27 Acute Studies:** lasted for <1 week that investigated immediate effects.

14 **14 Chronic Studies:** lasted for 3+ weeks and studied training adaptations.

Main Findings

1. Cluster, complex, contrast, and traditional training can all be used to specifically target athletic components.
2. Training an exercise close to the point of failure can provide a stimulus that increases the force component expressed at that load, while training at high velocities can increase the velocity component.

Summary of Acute and Training Intervention Effects of Cluster, Complex, Contrast, and Traditional Training Sequences

Training Type	Description	Time point	Jump height	1RM Squat	Peak power	Peak force	Peak velocity	Sprint time
Cluster	A traditional set with additional short rest periods of typically 15-45 seconds inserted within each set.	Acute maintenance effect vs. traditional			●	●		
		Following training intervention	●	●	●	●	●	
Complex	Multiple sets of a heavy resistance exercise followed by sets of a lighter resistance exercise.	Acute effect			●	●		
		Following training intervention	●	●	●	●		
Contrast	A workout that involves the use of exercises of contrasting loads, that is, alternating heavy and light exercises set for set.	Acute effect	●		●	●		
		Following training intervention	●	●		●	●	●
Traditional	Multiple sets of lighter resistances before heavy resistances.	Acute effect						
		Following training intervention	●	●	●	●	●	●

Key

Color and size of the circles are based on the direction and magnitude of Cohen's d:

Color

- Negative effect
- Positive effect

Size

- Trivial effect
- Large effect

Created by Adam Virgile
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@AVSportSci

Marshall, J., Bishop, C., Turner, A. and Haff, G.G., 2021. Optimal training sequences to develop lower body force, velocity, power, and jump height: a systematic review with meta-analysis. *Sports Medicine*, pp.1-27.

10. WHAT IS YOUR TRAINING PRESCRIPTION?

Name	Week	Volume	1	2	3	4	5	6	7	8	Notes
Constant	Same reps, same sets, increase load and exertion	Volume stays the same	3×8	3×8	3×8	3×8	3×8*	3×8	3×8	3×8	
			71.0%	73.0%	75.0%	67.0%	71.0%	73.0%	75.0%	67.0%	
	Relative Intensity		*Heavy*	*Heavy*	*Heavy +*	*Mod +*	*Heavy*	*Heavy*	*Heavy +*	*Mod +*	
			90.0%	*92.5%*	*95.0%*	*85.0%*	*90.0%*	*92.5%*	*95.0%*	*85.0%*	
	MOL		*0.8*	*0.9*	*1.0*	*0.7*	*0.8*	*0.9*	*1.0*	*0.7*	
"Traditional"	Same reps, high to low sets, increase load and exertion	Volume less each week	6×8	5×8	4×8	3×8	6×8*	5×8	4×8	3×8	
			68.0%	70.0%	72.0%	74.0%	68.0%	70.0%	72.0%	74.0%	
	Relative Intensity		*Mod +*	*Mod +*	*Heavy*	*Heavy*	*Mod +*	*Mod +*	*Heavy*	*Heavy*	
			85.0%	*87.5%*	*90.0%*	*92.5%*	*85.0%*	*87.5%*	*90.0%*	*92.5%*	
	MOL		*1.5*	*1.3*	*1.1*	*0.9*	*1.5*	*1.3*	*1.1*	*0.9*	
Rep Accumulation	Same load, same sets, increase number of reps and exertion	Volume increase each week	3×8	3×9	3×10	3×11	3×8*	3×9	3×10	3×11	Early GPP/Hypertrophy Block
			68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	
	Relative Intensity		*Mod +*	*Heavy*	*Heavy +*	*Max*	*Mod +*	*Heavy*	*Heavy +*	*Max*	
			85.0%	*90.0%*	*95.0%*	*100.0%*	*85.0%*	*90.0%*	*95.0%*	*100.0%*	
	MOL		*0.8*	*0.8*	*0.9*	*1.0*	*0.8*	*0.8*	*0.9*	*1.0*	
Linear	Same sets and exertion, decreasing number of reps, load increase	Volume less each week	3×5	3×4	3×3	3×2	3×5*	3×4	3×3	3×2	
			79.0%	81.0%	83.0%	86.0%	79.0%	81.0%	83.0%	86.0%	
	Relative Intensity		*Heavy*	*Heavy*	*Heavy*	*Heavy*	*Heavy*	*Heavy*	*Heavy*	*Heavy*	
			90.0%	*90.0%*	*90.0%*	*90.0%*	*90.0%*	*90.0%*	*90.0%*	*90.0%*	
	MOL		*0.7*	*0.6*	*0.5*	*0.4*	*0.7*	*0.6*	*0.5*	*0.4*	

Single Workout Schemes	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6
Plateau Load	5 @ 75%	5 @ 75%	5 @ 75%	5 @ 75%	5 @ 75%	
Relative Intensity	*Mod +*	*Mod +*	*Mod +*	*Mod +*	*Mod +*	
	85.0%	*85.0%*	*85.0%*	*85.0%*	*85.0%*	
Step Load	5 @ 65%	5 @ 70%	5 @ 75%	5 @ 80%	5 @ 85%	
Relative Intensity	Light +	Mod	*Mod +*	Heavy	Heavy +	
	75.0%	80.0%	*85.0%*	92.5%	97.5%	
Step Load plus Back Off	5 @ 65%	5 @ 70%	5 @ 75%	5 @ 80%	5 @ 85%	5 @ 65%
Relative Intensity	Light +	Mod	*Mod +*	Heavy	Heavy +	Light +
	75.0%	80.0%	*85.0%*	92.5%	97.5%	75.0%
Reverse Step Load	5 @ 85%	5 @ 80%	5 @ 75%	5 @ 70%	5 @ 65%	
Relative Intensity	Heavy +	Heavy	*Mod +*	Mod	Light +	
	97.5%	92.5%	*85.0%*	80.0%	75.0%	
Traditional Pyramid	10 @ 70%	8 @ 75%	6 @ 80%	8 @ 75%	10 @ 70%	
Relative Intensity	Heavy +	Heavy +	Heavy +	Heavy +	Heavy +	
	97.5%	95.0%	95.0%	95.0%	97.5%	
Reverse Pyramid	6 @ 80%	8 @ 75%	10 @ 70%	8 @ 75%	6 @ 80%	
Relative Intensity	Heavy +	Heavy +	Heavy +	Heavy +	Heavy +	
	95.0%	95.0%	95.0%	95.0%	95.0%	

Jovanovic, M. (2020, August 7). *Set and Rep Schemes in Strength Training - Part 2.* Complementary Training. https://complementarytraining.net/set-and-rep-schemes-in-strength-training-part-2/

10. WHAT IS YOUR TRAINING PRESCRIPTION?

Methods of applying Autoregulating Progressive Resistance Exercise

6RM Routine			10RM Routine		3RM Routine	
Set	Reps	Load (% E6RM)	Reps	Load (% E10RM)	Reps	Load (% E3RM)
1	10	50%	12	50%	6	50%
2	6	75%	10	75%	3	75%
3	AMRAP	E6RM	AMRAP	E10RM	AMRAP	E3RM
4	adjusted reps to failure		adjusted reps to failure		adjusted reps to failure	

APRE Adjustment Table

6RM Routine Adjustment		10RM Routine Adjustment		3RM Routine Adjustment	
Completed Reps	Set 4	Completed Reps	Set 4	Completed Reps	Set 5
0 - 2	lower 5-10lbs	4 - 6	lower 5-10lbs	1 - 2	lower 5-10lbs
3 - 4	lower 5lbs	7 - 8	lower 5lbs	3- 4	leave the same
5 - 7	leave the same	9 - 11	leave the same	5 - 6	increase 5-10lbs
8 - 12	increase 5-10lbs	12 - 16	increase 5-10lbs	7+	increase 10-15lbs
13+	increase 10-15lbs	17+	increase 10-15lbs		

Isometric Loading Prescription Table

Iso Method	Long Duration Holds	Light Yielding	Moderate Yielding	Heavy Yielding	Maximal Yielding/ Submax Overcoming	Maximal Overcoming
Load	Bodyweight	30 - 60% 1RM	60 - 80% 1RM, 60% MVIC	80 - 100% 1RM, 60 - 70% MVIC	100 - 110% 1RM, 70 - 80% MVIC	110 - 130% 1RM, 80 - 100% MVIC
Rep TUT	60s	30 - 60s, 3 - 5s	30 - 60s, 3 - 5s	10 - 30s, 2 - 10s	3 - 10s	0.5 - 3s, Explode vs Ramp
Reps	1	1, 3 - 5	1, 3 - 5	1, 1 - 5	1 - 5	2 - 5
Sets	1 - 5	3 - 5	3 - 5	3 - 5	2 - 4	2 - 3
Adaptation	Work capacity. technical competency, motor control	General strength development, introduction to loaded isometrics	General strength development, introduction to heavy isometrics	Tendon thickness, tendon stiffness, analgesia, muscle force, muscle hypertrophy at long muscle lengths, muscle architecture	Tendon stiffness, RFD, muscle force, peak force	Tendon stiffness, RFD (explode), muscle force, peak force (Ramp)
	Low training age/youth athletes introductory isometrics		Muscle morphology/tendon		Tendon morphology/neural	
Rehabilitation → Performance						

Sportsmith

In collaboration with Mario Artukovic (@martukovic19)

Mann, B. (2016). The APRE: The Scientifically Proven Fastest Way to Get Strong (2nd ed.). Bryan Mann. .ISBN 978-1-4675-767-5

Mario Artuković on. (2021, April 26). [Isometric Loading Prescription Table]. Twitter. https://twitter.com/martukovic19/status/1386638134805291010?s=20&t=I5xla58HeEMe1DbB0U1XXA

10. WHAT IS YOUR TRAINING PRESCRIPTION?

Citadel Strength Conditioning

RELATIVE INTENSITY TABLE

Difficulty		x1	x2	x3	x4	x5	x6	x8	x10
MAX	100.0%	100.0%	95.0%	92.5%	90.0%	87.5%	85.0%	80.0%	72.5%
HEAVY +	97.5%	97.5%	92.8%	90.3%	87.8%	85.5%	83.0%	78.0%	70.8%
	95.0%	95.0%	90.3%	88.0%	85.5%	83.3%	80.8%	76.0%	69.0%
HEAVY	92.5%	92.5%	88.0%	85.8%	83.3%	81.0%	78.8%	74.0%	67.3%
	90.0%	90.0%	85.5%	83.3%	81.0%	78.8%	76.5%	72.0%	65.3%
MOD +	87.5%	87.5%	83.3%	81.0%	78.8%	76.8%	74.5%	70.0%	63.5%
	85.0%	85.0%	80.8%	78.8%	76.5%	74.5%	72.3%	68.0%	61.8%
MOD	82.5%	82.5%	78.5%	76.5%	74.3%	72.3%	70.3%	66.0%	60.0%
	80.0%	80.0%	76.0%	74.0%	72.0%	70.0%	68.0%	64.0%	58.0%
LIGHT +	77.5%	77.5%	73.8%	71.8%	69.8%	68.0%	66.0%	62.0%	56.3%
	75.0%	75.0%	71.3%	69.5%	67.5%	65.8%	63.8%	60.0%	54.5%
LIGHT	72.5%	72.5%	69.0%	67.3%	65.3%	63.5%	61.8%	58.0%	52.8%
	70.0%	70.0%	66.5%	64.8%	63.0%	61.3%	59.5%	56.0%	50.8%
TOO LIGHT	67.5%	67.5%	64.3%	62.5%	60.8%	59.3%	57.5%	54.0%	49.0%
	65.0%	65.0%	61.8%	60.3%	58.5%	57.0%	55.3%	52.0%	47.3%

↑ Relative Intensity ↑ | ↑ Absolute Intensities ↑

COLOR CODE

Recommendations	
MAX	*True Test Sets *1x/8-12 wks *Prilepin LOW-OPT
HEAVY +	*Test Sets *Evaluation Sets *0-1x/4 wks *Prilepin LOW-OPT
HEAVY	*Evaluation Sets *Occasional Load Weeks *0-1x/4 wks *Prilepin LOW-OPT
MOD +	*Majority of Load Weeks *Occasional Open Sets *1-3x/4 wks *Prilepin LOW-HIGH
MOD	*Majority of Base Work *Occasional Unload work *0-1x/4 wks *Prilepin LOW-HIGH
LIGHT +	*Majority of Unload Work *Occasional Base Work *1-2x/4 wks
LIGHT	*Super Unload *0-1x/4 wks *Seldom used as Unload
TOO LIGHT	*Rarely used in Cycles *0-1x/4 wks *Not enough load to yield adaptation

Jovanovic, M. (2021, February 3). Does Speed Work Work? My Response to Mike Tuchscherer's Article [Part 2]. Complementary Training. https://complementarytraining.net/does-speed-work-work-my-response-to-mike-tuchscherers-article-part-2/

11. HOW WILL YOU PROGRESS YOUR TRAINING STIMULUS?

- Simple to Complex
- General to Specific
- Extensive to Intensive
- Low Intensity to High Intensity
- Closed to Open
- Technique Before Load
- Slow to Fast

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Macrocycle											
Preparatory Period									Competition Period		TRANS
OFFSEASON GPP			TRANS	OFFSEASON SPP					INSEASON		TRANS

Morris, G. (2020, April 14). *Speed Training & Special Strength for Field Sports with Graeme Morris.* SimpliFaster. https://simplifaster.com/articles/speed-training-special-strength-graeme-morris/

12. WHAT WARMUP WILL YOU PRESCRIBE BASED ON THE DESIGNED TRAINING SESSION?

RAMP WARMUP PROTOCOL

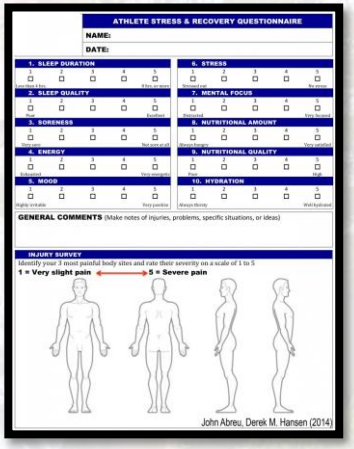
Section	Movement	Accel	Max Velocity	COD/Agility	HPC: Full Body	HPC: Lower Body	HPC: Upper Body	Stationary	Recommended Distance/Reps
Self Myofascial Release (SMR)		LAX Ball Foot	LAX Ball Foot	LAX Ball Foot	LAX Ball Foot	FR Glute	FR Lat	LAX Ball Foot	10-20s per movement
		FR Glute	FR Glute	FR Glute	FR Glute	FR Quad	FR Thor Extension	FR Glute	
		FR Quad	FR Quad	FR Quad	FR Quad	FR Hamstring	LAX Pec	FR Quad	
		FR Hamstring	FR Hamstring	FR Hamstring	FR Hamstring	FR Calf	LAX Upper Trap	FR Hamstring	
		FR Calf	FR Calf	FR Calf	FR Calf	FR Groin	LAX Lower Trap	FR Calf	
		FR Groin	FR Groin	FR Groin	FR Groin	FR Shin		FR Groin	
		FR Shin	FR Shin	FR Shin	FR Shin			FR Shin	
		FR Lat	FR Lat	FR Lat	FR Lat			FR Lat	
		FR Thor Extension	FR Thor Extension	FR Thor Extension	FR Thor Extension			FR Thor Extension	
RAISE	*Game Options*	Octopus	Wrist Tag	Tic/Tac/Toe	Disc Crokinole	Rock Paper Scissors	LAX Ball Drop to Bucket	Capture the Shirt	5 min
	Bodyweight Options	FW Skips + Arm Circles	FW Skips + Arm Circles	FW Skips + Arm Circles	FW Skips + Arm Circles	Agility Ladder (AL) Hopping In & Outs	FW Skips + Arm Circles	Jumping Jacks	10-30 yards (10-20s) per movement
		BW Skips + Arm Circle	BW Skips + Arm Circle	BW Skips + Arm Circle	BW Skips + Arm Circle	AL Lateral Hopping In & Outs	BW Skips + Arm Circle	Cross Jacks	
		FW Skips + Across Chest	FW Skips + Across Chest	FW Skips + Across Chest	FW Skips + Across Chest	AL Running in & Outs	FW Skips + Across Chest	Running on the Spot	
		BW Skips + Across Chest	BW Skips + Across Chest	BW Skips + Across Chest	BW Skips + Across Chest	AL Lateral Running In & Outs	BW Skips + Across Chest	Shuffles	
		FW Skips + Ov/Un	FW Skips + Ov/Un	FW Zig Zag Shuffle	Jumping Jacks	AL FW Ickey Shuffle	Locomotion Hierarchy (LH): FW + BW Skipping	Stationary Ickey Shuffle	
		BW Skips + Ov/Un	BW Skips + Ov/Un	BW Zig Zag Shuffle	Cross Jacks	AL BW Ickey Shuffle	LH: FW + BW Skip & Step	Forward Line Hops	
		High Shuffle	High Shuffle	Low Carioca	Running on the Spot	AL 2 Foot Hop 2 FW + 1 BW	LH: Lateral Skipping	Lateral Line Hops	
		High Carioca	High Carioca	High Carioca	Lateral Shuffle	AL Lateral + Step Behind	LH: Th + Back Lateral Skip & Step	Line Crossovers	
MOBILIZATION	*Anterior Hip*	Walking Lunge with Reach	Reverse Lunge with Reach	Walking Lunge with Rotation	Worlds Greatest Stretch (WGS): Hip Flexor	Worlds Greatest Stretch (WGS): Hip Flexor	N/A	Pushup Position (PP): Warrior Pose	3-10 reps each
	Lateral Hip	Knee Hug + Quad Stretch + Hip Scoop	Lateral Leg Swings	Hurdler Over/Unders	WGS: Cossack Squat	WGS: Cossack Squat	N/A	PP: Blocking Hip Rotations	
	Medial Hip	Walking Cossack Squats	Bilateral Groin Rock	1/2 Kneeling Groin Rock	WGS: Elbow Drop	WGS: Elbow Drop	N/A	PP: Hip Distractions	
	Posterior Hip	Quad Stretch to Single Leg RDL	FW/BW Leg Swings	Inchworms	WGS: Hip Scoop	WGS: Hip Scoop	N/A	Rollover	
	Hamstring	Walking Lunge to Pushback	Hamstring Scoops	Rollovers	WGS: Hamstring Pushback	WGS: Hamstring Pushback	N/A	Supine Knee Hug + Extension	
	Dynamic Hip Rotation	90/90 Hip Stretch	Quadruped Hip CAR's	90/90 Rear Hip Axials	90/90 Reach and Rotation	Standing Hip CAR's	N/A	90/90 Rotation to Hip Box	
	Ankle	1/2 Kneeling Ankle Mobilization	Wall Ankle Mobility	Downward Dog Ankle Walks	Front Foot Elevated Lunge to Maximal Dorsiflesion	Single Leg Calf Raises (5s hold)	N/A	Bench/Box Ankle Mobilization	
	Thoracic Extension	Cat Cow Mobilization	Pushup to Downward Dog	Dowel/Band Shloulder Over & Backs	Foam Roller Dowel Thoracic Extension	Bench Thoracic Mobilization	TRX Deep Squat	Decline Pushup to Downward Dog	
	Thoracic Rotation	Walking Lunges to Thoracic Rotation	Tiger Crawl to Throacic Rotation	Quadruped Reach Throughs	1/2 Kneeling Thoracic Rotation	Lumber Locked Thoracic Rotation (Behind Head)	Lumbar Locked Thoracic Rotation (Behind Back)	Side Lying Windmill	
ACTIVATION	*Single Leg Hop*	Single Leg Linear Hurdle Series	Single Leg Hop Series	Single Leg Lateral Hurdle Series	Single Leg Linear Hurdle Series	Single Leg Hop Series	N/A	Single Leg Rotational Hops	5 hurdles/hops, 1 rotation each direction
	Crawl	Linear Bear Crawl	Lateral Bear Crawl	Lateral Gorilla Crawl	Linear Gorilla Crawl	Rotational Bear Crawl	Linear Hopping Bear Crawl	Single Arm Bear Crawl Hold + Knee Extension	10-15 yards, 20-30s
	Tumbling/Combat	1/2 Kneeling Forward Roll	Split Stance Forward Roll	Partner Shuffle to Bump and Shove	Partner Bear Crawl + Perturbation	Partner Bear Crawl (Hands to Shoulders)	Partner Carries	Seated-Tall Kneeling-Standing Forward & Lateral Falling	3-5 reps
	Glute	N/A	N/A	N/A	Single Leg Glute Bridge	7 Way Hips	N/A	Alternating Glute March	3-5 reps
	Core	N/A	N/A	N/A	Wall Engaged Deadbug	Bird Dog	Side Plank	McGill Curl-Up	5-10 reps, 20-30s
	Upper Back	N/A	N/A	N/A	Blackburns	Band Pull Apart	Band Face Pulls	Shoulder I to O	10-15s, 10-12 reps
	Neck	Partner 4 Way Iso Neck	Partner 4 Way Iso Neck	Partner 4 Way Iso Neck	Partner 4 Way Iso Neck	Band Resisted Anti-Flexions/Extensions/Lateral Flexions	Quadruped Lateral Iso Neck	SB Wall Alphabets	10-15s, 10-12 reps
	Deceleration	Snap Down to Broad Jump	Snap Down to Split Squat	Snap Down to Lateral Skater	Snap Down to Single Leg to Vertical Jump	Box Lands	N/A	Snap Down to Vertical Jump	4-6 reps
POTENTIATION	*Extensive Plyo*	Lower Body Rudiment Series	Foot Rudiment Series	Lower Body Rudiment Series	*Lower*	Reactive Jump Squats	MB Scoop Throws to Wall	N/A	Reactive Fast Feet (Switched & Jumps)	3-6 reps
	Transfer	1/2 Kneeling Broad Jump	Hurdle Hop Series	45 Degree Bound Series					
	Technical	Wall Drill Series	A March-Switch-Skip (+ Dowel)	Base Stance Weight Shift-Switch	*Upper*	Med Ball Slams	N/A	Med Ball Chest Pass	Incline Plyo Pushup
	Technical	Prowler March-Bound	Straight Leg Skip-Run-Bleed	Lateral A March-Switch-Skip					
	Technical	Sled March-Bound	Ankling (Dribbles): Ankle-Calf-Knee-Bleed	Crossover March-Skip-Bound					
	Technical	Med Ball Projection	Build-Ups	Banded-Lateral Push to Base					

PROCEED TO TRAINING STIMULUS

CANADIAN STRENGTH & CONDITIONING ASSOCIATION

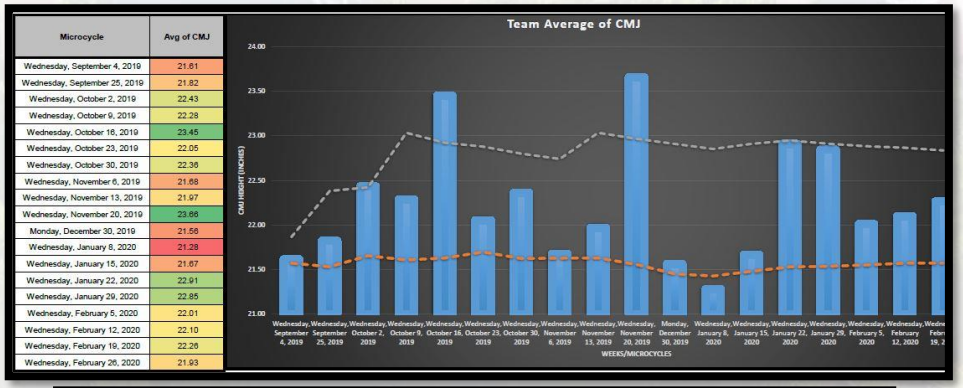
13. HOW WILL YOU MONITOR PERFORMANCE AND THE EFFECT OF TRAINING?

Athlete Wellness (Subjective)

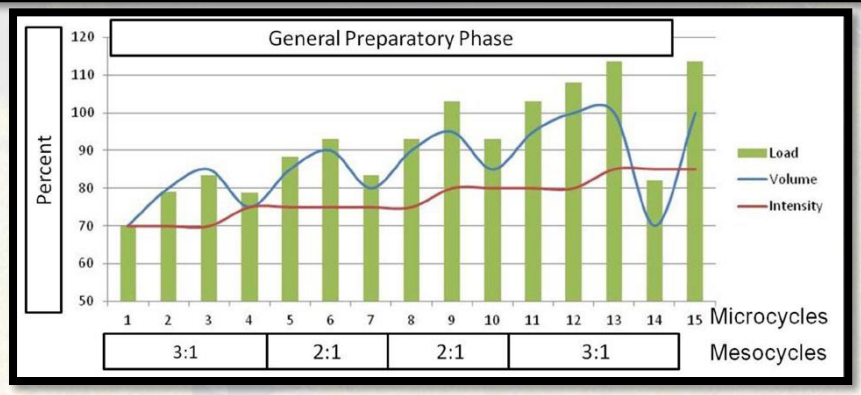


Physical Monitoring (Objective)

Microcycle	Avg of CMJ
Wednesday, September 4, 2019	21.81
Wednesday, September 25, 2019	21.82
Wednesday, October 2, 2019	22.43
Wednesday, October 9, 2019	22.28
Wednesday, October 16, 2019	23.45
Wednesday, October 23, 2019	22.05
Wednesday, October 30, 2019	22.36
Wednesday, November 6, 2019	21.68
Wednesday, November 13, 2019	21.97
Wednesday, November 20, 2019	23.66
Monday, December 30, 2019	21.56
Wednesday, January 8, 2020	21.28
Wednesday, January 15, 2020	21.67
Wednesday, January 22, 2020	22.91
Wednesday, January 29, 2020	22.85
Wednesday, February 5, 2020	22.01
Wednesday, February 12, 2020	22.10
Wednesday, February 19, 2020	22.26
Wednesday, February 26, 2020	21.93



Monitoring Training Load (Subjective/Objective)



Abreu, J. (2014, December 1). *Athlete Monitoring on a Budget – An Experience.* Https://Strengthpowerspeed.Com/Athlete-Monitoring/.

Hill, D. (2012, July 1). *Performance Planning: Quantifying the YTP-Modelling and Monitoring the Training Load.* CSIPacific.ca. https://www.csipacific.ca/wp-content/uploads/pp/performance-point-1207-quantifying-YTP.pdf

CANADIAN STRENGTH & CONDITIONING ASSOCIATION

14. WHAT CUES WILL YOU UTILIZE FOR EACH PRESCRIBED MOVEMENT?

LONG LOOP (DDCDD)		SHORT LOOP (CDD)		
DESCRIBE IT	**DEMONSTRATE IT**	**CUE IT**	**DO IT**	**DEBRIEF IT**
Extended description of the movement	Physical demonstration of the movement	Brief phrase used to focus attention on the movement	Athlete maintains focus while performing the movement	Athlete + Coach feedback is considered
The WHAT	**The HOW**			**The WHAT**
Internal or external language	Silence, single words to highlight, or A/B demonstration	Last phrase is an external cue or analogy	Silence or single words/sounds to highlight tempo	Questions, comments, and collaboration

Nick Winkelman

Acceleration

Forward lean
- First step – Body angle ~45˚
- Stronger athletes may have lower angles

Parallel shins and body
- Attack back at the ground
- Contact ground underneath hip

Toe up
- Creates a pre-stretch

Low ground clearance

Head facing down

Big arms

Slower ground contact times
- More time to apply force
- More strength based

Cues

Forward lean: Too upright
- Plane slowly rising/taking off the runway

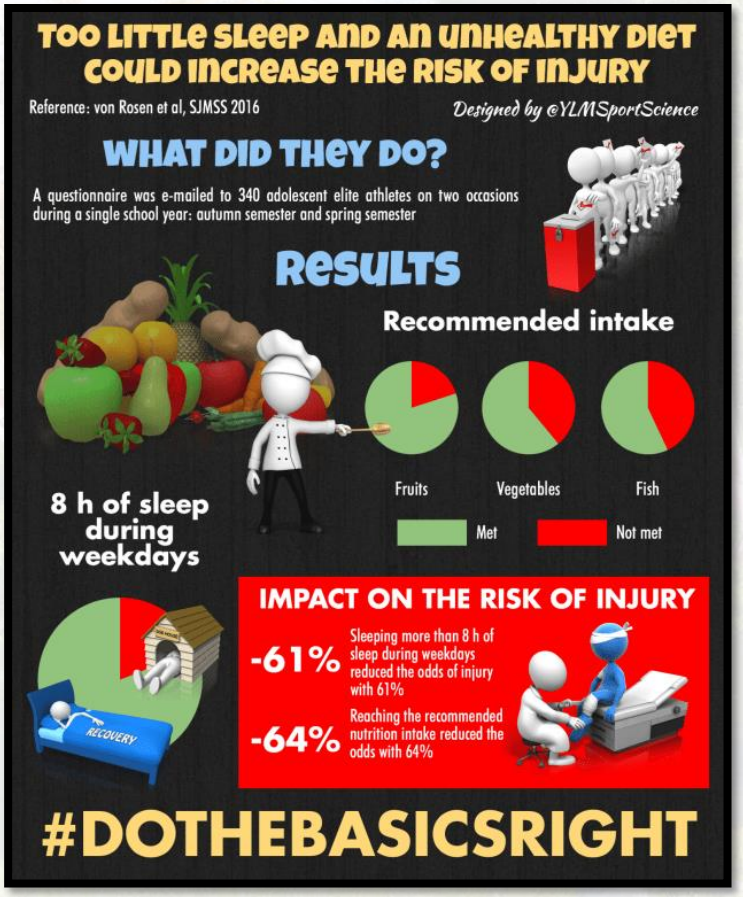
Parallel shins and body: Not enough knee drive to attack the ground from above
- Push the ground away from you
- Rip your torso/pelvis in half

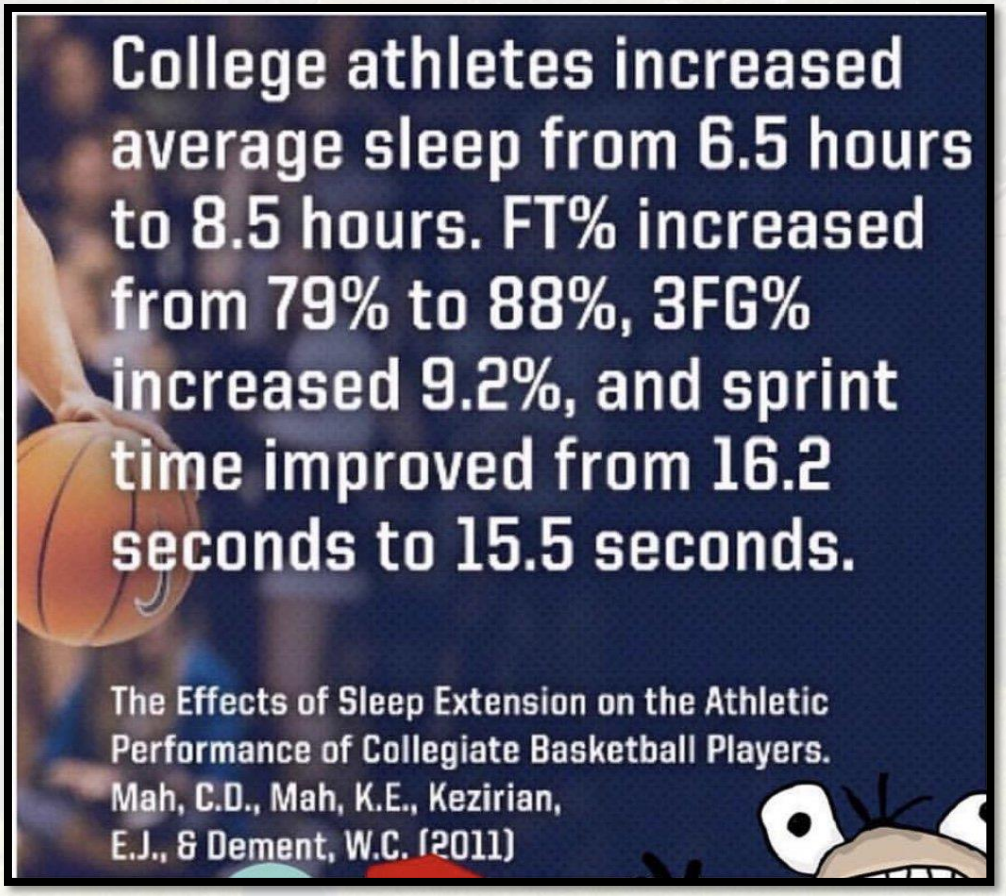
Big arms: Not enough displacement
- Block the sun
- Elbow the person behind you

Slower ground contact times: Too many steps/tip toeing
- Punch the ground
- Push away from the line, don't run to the finish

Winkelman, N., & Coyle, D. (2020). The Language of Coaching: The Art & Science of Teaching Movement (First ed.). Human Kinetics.

15. WHAT RECOVERY STRATEGIES WILL YOU USE?





Infographics. (2019, January 18). YLMSportScience. https://ylmsportscience.com/infographics/

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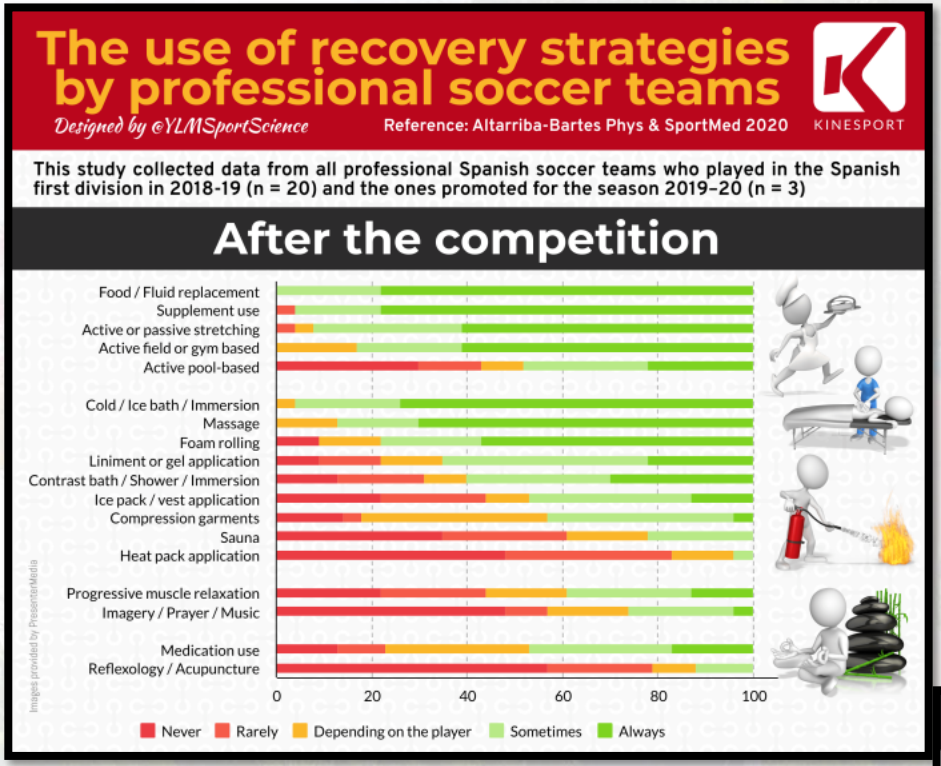

Sleep

Food

Movement

Infographics. (2019, January 18). YLMSportScience. https://ylmsportscience.com/infographics/

CANADIAN STRENGTH & CONDITIONING ASSOCIATION

PROGRAMMING CHECKLIST

1. **Who are you working with?**
   - a) PAR Q+
   - b) Informed Consent
   - c) Health/Medical Questionnaire
   - d) Personal Questionnaire (ie. Training history, goals and interests)
   - e) Beginner/intermediate/advanced
   - f) Movement Screen
2. **What does their sport require them to do?**
   - a) Needs Analysis: Bioenergetic, biomotor and biodynamic qualities
   - b) Assessment
     - i. Anthropometrics
     - ii. Performance Testing
3. **What does their current fitness level tell us?**
   - a) Performance gaps to normative/historical data
4. **Where are we at in the training year?**
   - a) Offseason (GPP vs. SPP)
   - b) Pre-Season
   - c) Inseason
   - d) Post-Season
   - e) Transition
5. **What will the entire week of training/competition include and what S&C is feasible based on their schedule and logistics?**
   - a) Practice schedule
   - b) Class schedule
   - c) Job schedule
   - d) Training facility/field availability
   - e) Interference effect/global training load/Consolidation of Stressors
   - f) Tactical periodization
   - g) Template design
6. **When in the day will the training session occur?**
   - a) Pre/post practice
   - b) Early morning/late afternoon/evening
   - c) Duration of available time
7. **What will your focus of training be?**
   - a) Speed Development (Linear/Curvilinear, Accel/Max Velocity)
   - b) COD/Agility
   - c) Reactive Power
   - d) Loaded Power
   - e) Maximal Strength
   - f) Accelerative Strength
   - g) Hypertrophy
   - h) ESD
8. **What movement categories will you utilize and in what arrangement throughout the week and in what order during each training session?**
   - a) Full/Lower Body Power
   - b) Upper Body Power
   - c) Knee Dominant
   - d) Hip Dominant
   - e) Knee Dominant Posterior Chain
   - f) Vertical Push
   - g) Vertical Pull
   - h) Horizontal Push
   - i) Horizonal Pull
   - j) Anti-Extension
   - k) Anti-Flexion (Loaded Carry)
   - l) Anti-Rotation
9. **What exercises will you select for each movement category in your template?**
   - a) Unilateral vs Bilateral
   - b) Standard-Lateralization-Iso-Prehab
   - c) Dynamic correspondence: Bondarchuk exercise classification
10. **What is your training prescription?**
    - a) Sets/reps
    - b) Single workout set structure
    - c) Tempo (ecc/iso variations)
    - d) Rest
11. **How will you progress your training stimulus?**
    - a) Method of variation
    - b) Training block scheme
12. **What warmup will you prescribe based on the designed training session?**
    - a) RAMP
    - b) CAR's
    - c) Locomotion Hierarchy
    - d) Prehab
13. **How will you monitor performance and the effect of training?**
    - a) Wellness Monitoring
    - b) Load Monitoring
    - c) Physical Performance Monitoring
14. **What cues will you utilize for each prescribed movement?**
    - a) Internal vs. External
15. **What recovery strategies will you use?**
    - a) Pool
    - b) Foam Rolling/Stretching/Mobility
    - c) Breathing/Meditation
    - d) Nutritional interventions
    - e) Sleep education

CANADIAN STRENGTH & CONDITIONING ASSOCIATION