LEARNING OBJECTIVES

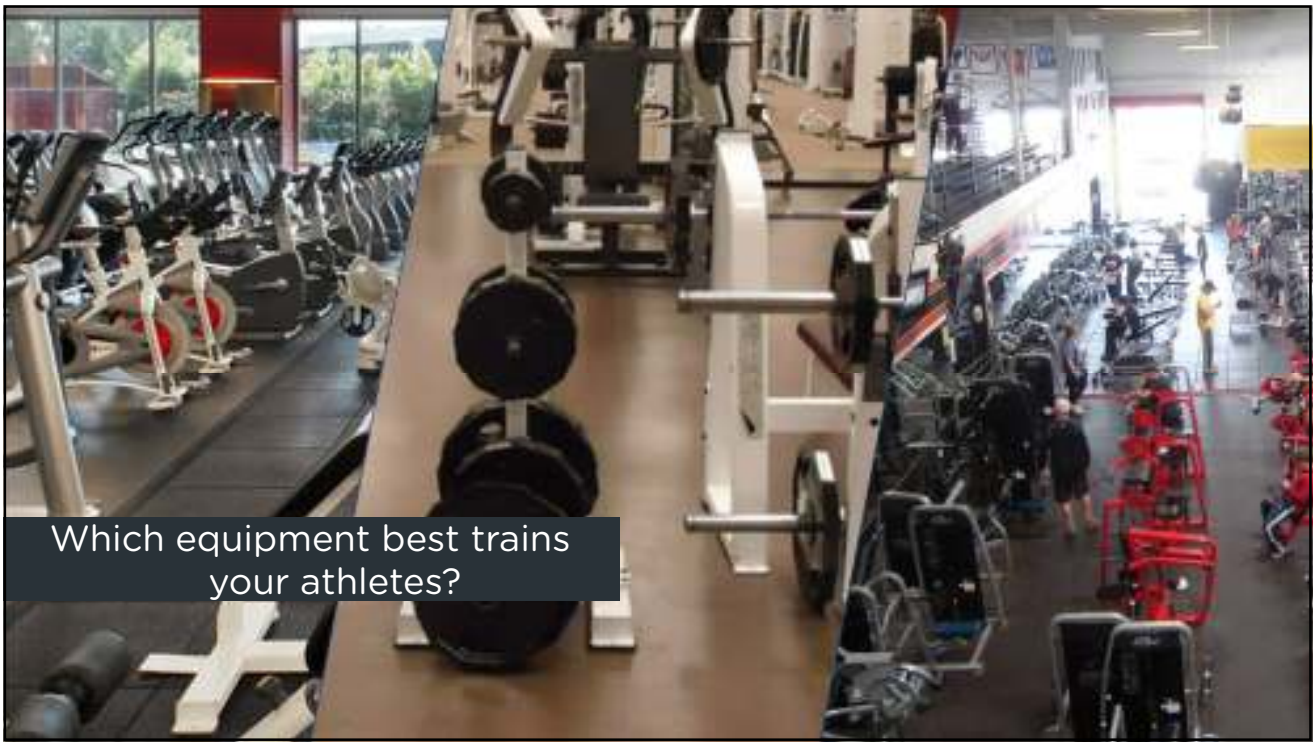
- Discuss the training tradition and how it has influenced preparation for athletes.
- Introduce the key concepts behind movement based program design and show examples of movements.
- Review basic structure and template for organizing movements for a balanced movement based program.

01

INTRODUCTION

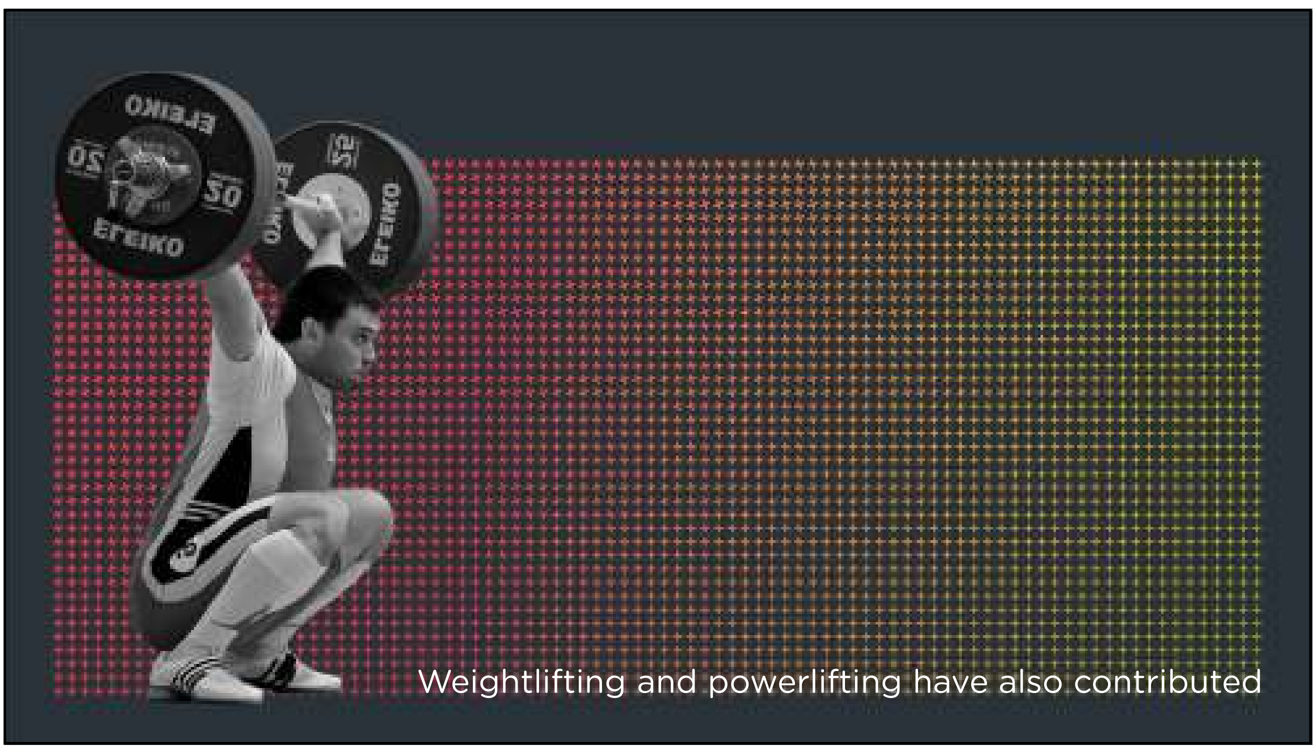
+ Why are we here?

THESE SPACES FIT ONE GOAL WELL



The sport of bodybuilding
has defined our traditional view
of physical fitness.

But not just bodybuilding…



How has tradition affected the way we prepare athletes?

Yet, some questions need answers.

METHODOLOGY MINDSET

- Fitness
- Body Building
- Power Lifting
- Olympic Lifting

→

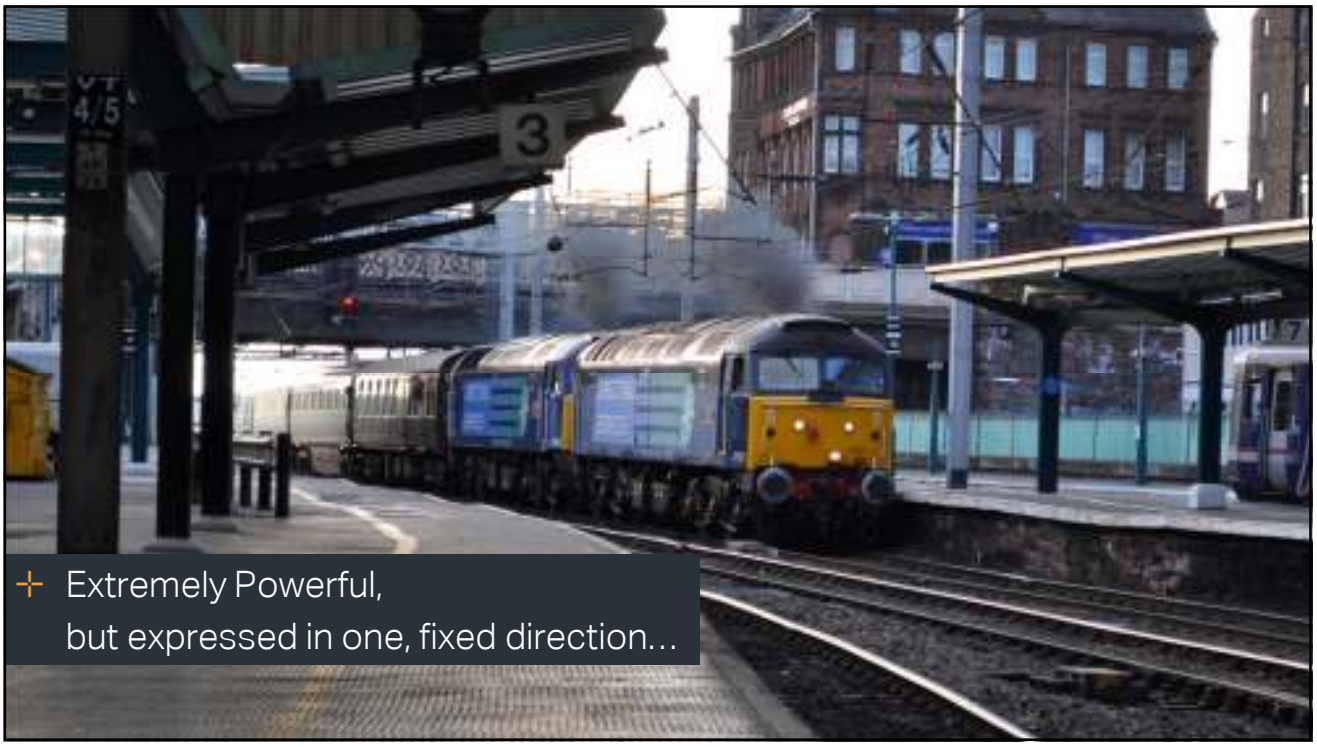
- Finite
- One-Dimensional

EXOS

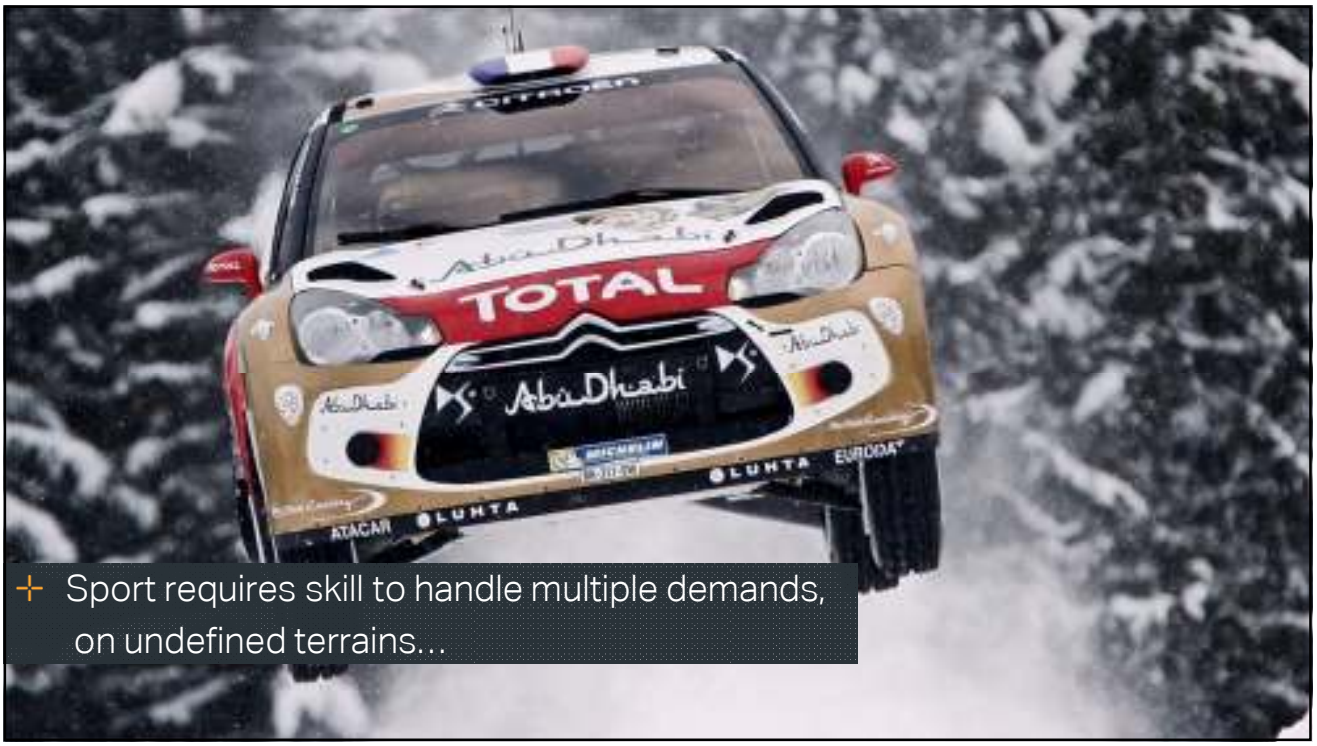
17

EXOS

18



- Extremely Powerful,
  but expressed in one, fixed direction…



- Sport requires skill to handle multiple demands,
  on undefined terrains…

FUNCTIONAL TRAINING

"PREPARING LIKE YOU PERFORM"

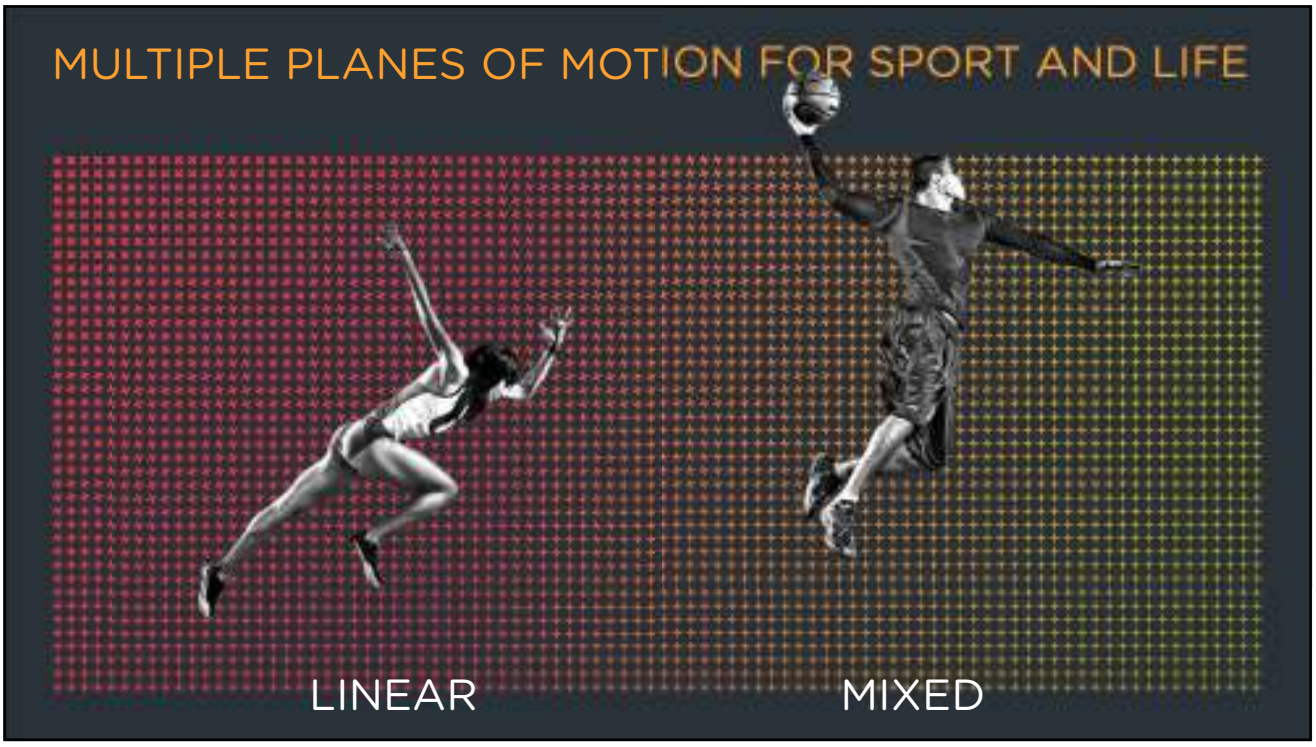
A sport and athlete specific prescription of progressive, integrated multi-joint, multi-planar, proprioceptively-enriched movements at various loads and speeds.

MULTIPLE PLANES OF MOTION FOR SPORT AND LIFE

SAGITTAL FRONTAL TRANSVERSE

EXOS

22



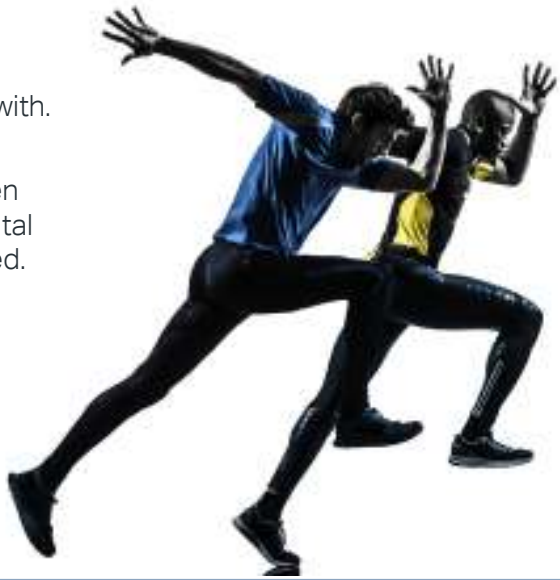
So what are the goals of training?

IN SUMMARY

- The "Iron Games" have had a large impact on our training tradition, but do not adequately prepare an athlete for the demands of a movement based world.
- Programming should both increase performance while decreasing injury potential.
- Focusing on training that strengthens movements helps us achieve our training goals.

CHECK FOR LEARNING 01

- Come up with 2-3 Main goals that you would want to be the cornerstone of your training process, regardless of the athlete you work with.
- Go through the last 3 programs you've written for a client or athlete and see how much frontal plane and transverse plane work is prescribed.
  - Is there space for more?



02

FORGING AHEAD

- Movement-based program design.
- Organized through a system of clear classifications of exercises
- Establish program balance, excel through the demands of sport and life.

Create a common language

PUSHING VS. PULLING

Push

verb: To use force to move (someone or something) forward or *away* from you
i.e.- A Squat

Pull

verb: to hold onto and move (someone or something) in a particular direction and especially *toward* yourself
i.e.- A Deadlift

+The vector directions of where the weight is going *(towards the body or away from it)* allow us to clearly distinguish whether we are pushing something or pulling it.

EXOS 33

Create a classification of movement types

STRENGTHENING MOVEMENT

MOVEMENT BASED TRAINING

- Movement patterns
  - Upper push/pull, lower push/pull, rotational
- Multiple joint movements
- Multi-planar
- Eccentric, concentric, isometric
- Purposeful training
  - Strength to support movement

MOVEMENT TYPES

TOTAL BODY
UPPER BODY
LOWER BODY
ROTATIONAL

EXOS

35

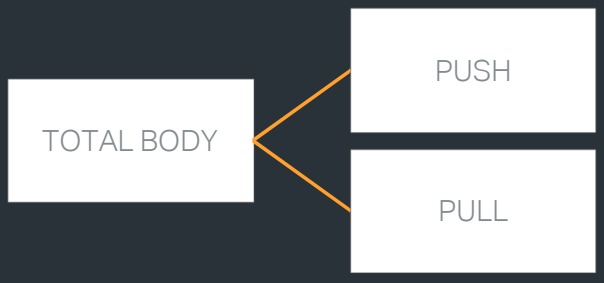
Points of Emphasis for Movements *(w/ examples)*

POINTS OF EMPHASIS – TOTAL BODY

- Total Body- Explosive movements with a focus on kinetic linking. Focus starts with technique/educational emphasis.
- Traditionally the first section of the lift.

EXOS 37

MOVEMENT TYPES CLASSIFICATIONS
TOTAL BODY



TOTAL BODY

Hang Snatch - DB

✛ Focal Points: Kinetic linking, torso trained dynamically

TOTAL BODY

Squat to Throw - MB

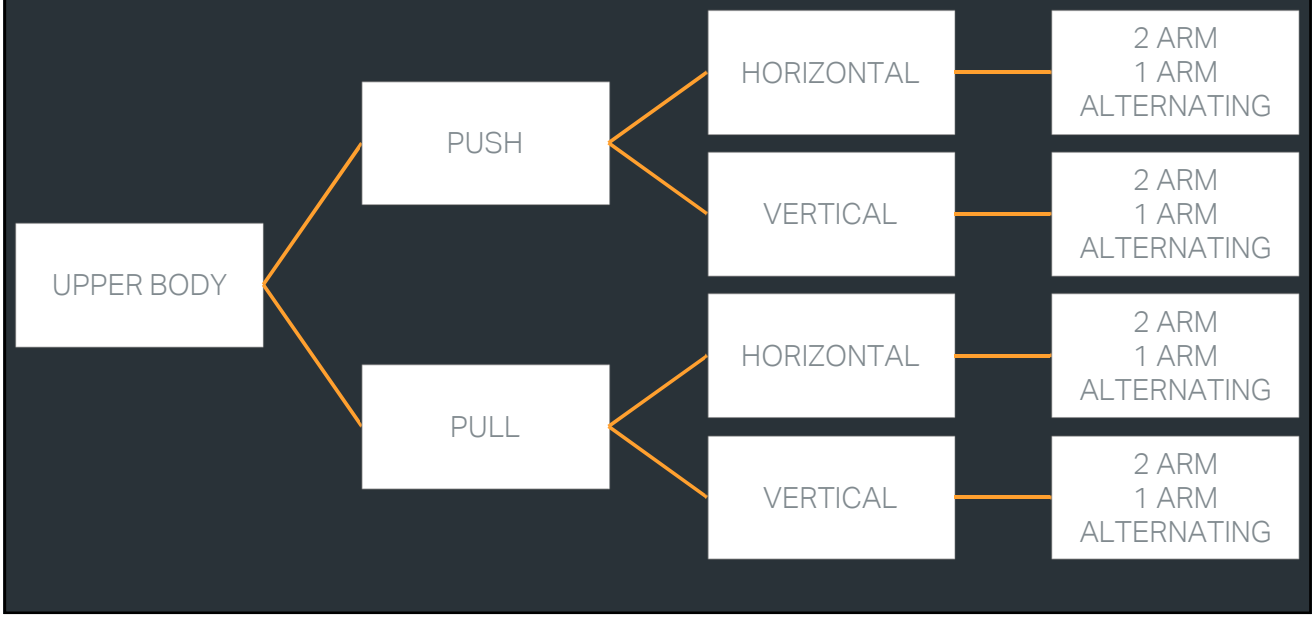
✛ Focal Points: Kinetic linking, torso trained dynamically

POINTS OF EMPHASIS- STRENGTH

- Strength movements will receive either a primary or secondary emphasis
- Primary - Most demanding movement *(physically & neurally)*. Typically bilateral and the main point of emphasis that day.
- Secondary - Less demanding movement *(physically & neurally)*. Typically unilateral and the subsequent point of focus that day.
  - Traditionally the second part of the lift.

EXOS 41

MOVEMENT TYPES CLASSIFICATIONS
UPPER BODY



UPPER BODY – 2-ARM PUSH/PULL VERTICAL

Overhead Press – ½ Kneeling - DB

Pull Down – Seated Cable

✛ Focal Points: Primary upper body examples, bilateral

UPPER BODY – 2-ARM PUSH/PULL HORIZONTAL

Bench Press - Barbell

Bent Over Row - Dumbbell

✛ Focal Points: Primary upper body examples, bilateral

UPPER BODY – ALTERNATING PUSH/PULL VERTICAL

Overhead Press – ½ Kneeling – Alternating DB

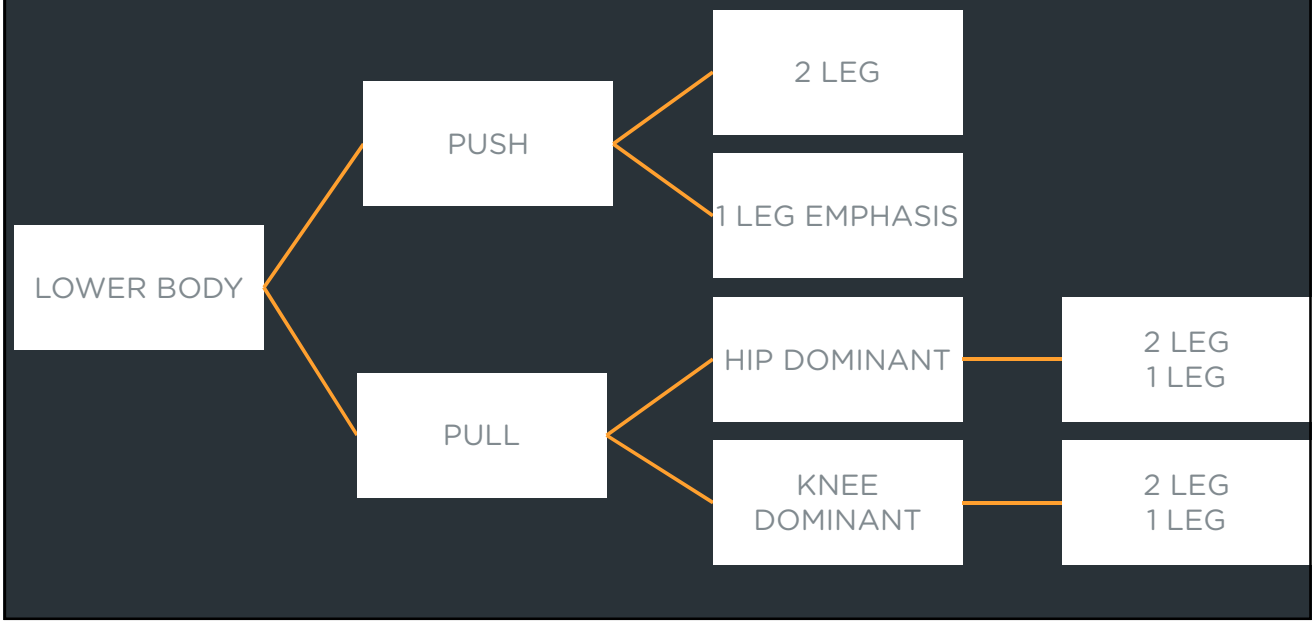
Pull Down – Seated Alternating Cable

✛ Focal Points: Secondary upper body examples, unilateral

EXOS 45

MOVEMENT TYPES CLASSIFICATIONS

LOWER BODY



LOWER BODY PUSH – 2-LEG, 1-LEG EMPHASIS

Front Squat - Barbell

Forward Lunge - Dumbbell

✛ Focal Points: Hips & knees work together to execute action

EXOS

LOWER BODY PULL – HIP DOMINANT – 2-LEG, 1-LEG

Romanian Deadlift - Dumbbell

Romanian Deadlift – Single Leg DB

✛ Focal Points: Knees are fixed, hips execute action

EXOS

LOWER BODY PULL – KNEE DOMINANT – 2-LEG, 1-LEG

Leg Curl (Slide)

Leg Curl – 1 Leg (Slide)

- Focal Points: Hips are fixed, knees execute action

EXOS 49

POINTS OF EMPHASIS- ROTARY

- Rotary Movements will receive either a Propulsive or Stability Emphasis
- Stability- Hips and Torso trained *statically*, resisting rotational forces generated by movement. Force is generated by a stable pillar *(center-out)*.
- Propulsive- Hips and torso are trained *dynamically*. Focus on kinetic linking. Transfer force from the ground through the pillar.
- Traditionally used as the third element of the session.

EXOS 50

MOVEMENT TYPES CLASSIFICATIONS
ROTATIONAL

ROTARY STABILITY

Stability Chop – ½ Kneeling Cable (Bar)

Stability Lift – Half Kneeling Cable (Bar)

✛ Focal Points: Stable base, torso is trained statically

EXOS

52

ROTARY PROPULSIVE

Rotational Chop – Seated Cable (Stability Ball)

Rotational Lift – Seated Cable (Stability Ball – Rope)

- Focal Points: Kinetic linking, torso trained dynamically

EXOS

IN SUMMARY

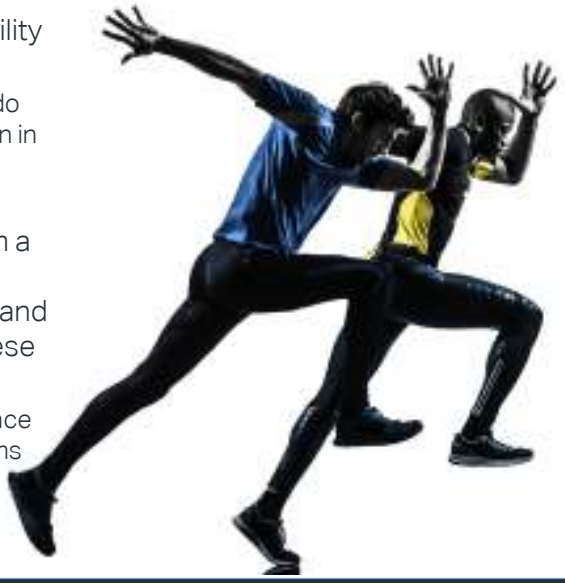
- Creating a clear language is the first step to building an organized and balanced training program.
- Categorizing movements by type, that are influenced by real-world movements, allows for the development of a balanced and thorough program.
- Training rotation is a critical factor to performance enhancement and injury prevention, and it is generally the least trained movement type

EXOS

CHECK FOR LEARNING

02

- Rotary movements, either propulsive or stability are essential to train
  - Write down 3 ways you can train each if you do not have Keiser pneumatic air systems shown in our examples.
- The lower body can be tricky to balance from a push-pull standpoint. Check your last three programs written for your clients or athletes and observe whether there is balance among these movement types.
  - If there isn't, practice establishing balance by re-writing those same three programs with this in mind.



EXOS

55

03

FINDING A BALANCE

- Create a template which combines both bilateral and unilateral movements
- Ensure performance enhancement and injury prevention

TRAINING MOVEMENT PATTERNS

"If we train muscles we will forget Movements, but if we train Movements we will never forget muscles"

Simultaneous training of multiple planes & joints
Specific to the environment

- Majority of demands are multi-planar
- Majority of traditional training is not!

EXOS

58

FOUNDATIONAL PHASES

FOUNDATION 1

- develop pillar strength
- learn foundational lifting techniques
- correct imbalances

FOUNDATION 2

- same goals as F1
- increase density
- increase volume

- Focus on movement quality over quantity
- Balancing primary, secondary, and rotary movements

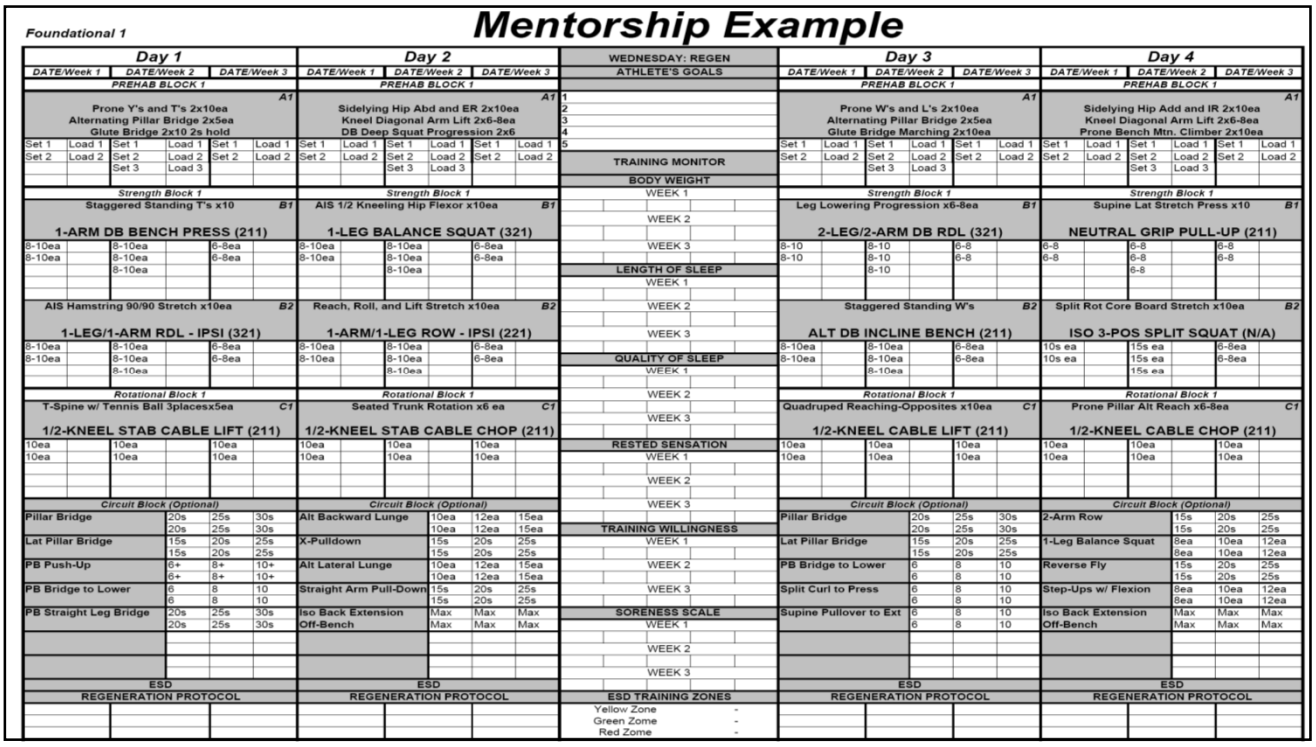
EXOS

59

Mentorship Example

Foundational 1

Day 1			Day 2			WEDNESDAY: REGEN	Day 3			Day 4		
DATE/Week 1	DATE/Week 2	DATE/Week 3	DATE/Week 1	DATE/Week 2	DATE/Week 3	ATHLETE'S GOALS	DATE/Week 1	DATE/Week 2	DATE/Week 3	DATE/Week 1	DATE/Week 2	DATE/Week 3
PREHAB BLOCK 1			PREHAB BLOCK 1				PREHAB BLOCK 1			PREHAB BLOCK 1		
A1			A1			1	A1			A1		
						2						
						3						
						4						
						5						
						TRAINING MONITOR						
						BODY WEIGHT						
Strength Block 1			Strength Block 1			WEEK 1	Strength Block 1			Strength Block 1		
B1			B1			WEEK 2	B1			B1		
						WEEK 3						
						LENGTH OF SLEEP						
B2			B2			WEEK 1	B2			B2		
						WEEK 2						
						WEEK 3						
						QUALITY OF SLEEP						
Rotational Block 1			Rotational Block 1			WEEK 1	Rotational Block 1			Rotational Block 1		
C1			C1			WEEK 2	C1			C1		
						WEEK 3						
						RESTED SENSATION						
						WEEK 1						
						WEEK 2						
Circuit Block (Optional)			Circuit Block (Optional)			WEEK 3	Circuit Block (Optional)			Circuit Block (Optional)		
						TRAINING WILLINGNESS						
						WEEK 1						
						WEEK 2						
						WEEK 3						
						SORENESS SCALE						
						WEEK 1						
						WEEK 2						
						WEEK 3						
ESD			ESD				ESD			ESD		
REGENERATION PROTOCOL			REGENERATION PROTOCOL			ESD TRAINING ZONES	REGENERATION PROTOCOL			REGENERATION PROTOCOL		
						Yellow Zone -						
						Green Zone -						
						Red Zone -						



Foundational 1

Mentorship Example

Day 1						Day 2						WEDNESDAY: REGEN	Day 3						Day 4					
DATE/Week 1		DATE/Week 2		DATE/Week 3		DATE/Week 1		DATE/Week 2		DATE/Week 3		ATHLETE'S GOALS	DATE/Week 1		DATE/Week 2		DATE/Week 3		DATE/Week 1		DATE/Week 2		DATE/Week 3	
PREHAB BLOCK 1						PREHAB BLOCK 1						1	PREHAB BLOCK 1						PREHAB BLOCK 1					
A1						A1						2	A1						A1					
Prone Y's and T's 2x10ea						Sidelying Hip Abd and ER 2x10ea						3	Prone W's and L's 2x10ea						Sidelying Hip Add and IR 2x10ea					
Alternating Pillar Bridge 2x5ea						Kneel Diagonal Arm Lift 2x6-8ea						4	Alternating Pillar Bridge 2x5ea						Kneel Diagonal Arm Lift 2x6-8ea					
Glute Bridge 2x10 2s hold						DB Deep Squat Progression 2x6						5	Glute Bridge Marching 2x10ea						Prone Bench Mtn. Climber 2x10ea					
Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1		Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1	Set 1	Load 1
Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	TRAINING MONITOR	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2	Set 2	Load 2
		Set 3	Load 3					Set 3	Load 3			BODY WEIGHT			Set 3	Load 3					Set 3	Load 3		
Strength Block 1						Strength Block 1						WEEK 1	Strength Block 1						Strength Block 1					
Staggered Standing T's x10					B1	AIS 1/2 Kneeling Hip Flexor x10ea					B1		Leg Lowering Progression x6-8ea					B1	Supine Lat Stretch Press x10					B1
1-ARM DB BENCH PRESS (211)						1-LEG BALANCE SQUAT (321)						WEEK 2	2-LEG/2-ARM DB RDL (321)						NEUTRAL GRIP PULL-UP (211)					
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea			8-10		8-10		6-8		6-8		6-8		6-8	
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea		WEEK 3	8-10		8-10		6-8		6-8		6-8		6-8	
		8-10ea						8-10ea				LENGTH OF SLEEP			8-10						6-8			
AIS Hamstring 90/90 Stretch x10ea					B2	Reach, Roll, and Lift Stretch x10ea					B2	WEEK 1	Staggered Standing W's					B2	Split Rot Core Board Stretch x10ea					B2
1-LEG/1-ARM RDL - IPSI (321)						1-ARM/1-LEG ROW - IPSI (221)						WEEK 2	ALT DB INCLINE BENCH (211)						ISO 3-POS SPLIT SQUAT (N/A)					
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea			8-10ea		8-10ea		6-8ea		10s ea		15s ea		6-8ea	
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea		WEEK 3	8-10ea		8-10ea		6-8ea		10s ea		15s ea		6-8ea	
		8-10ea						8-10ea				QUALITY OF SLEEP			8-10ea						15s ea			
Rotational Block 1						Rotational Block 1						WEEK 1	Rotational Block 1						Rotational Block 1					
T-Spine w/ Tennis Ball 3placesx5ea					C1	Seated Trunk Rotation x6 ea					C1		Quadruped Reaching-Opposites x10ea					C1	Prone Pillar Alt Reach x6-8ea					C1
1/2-KNEEL STAB CABLE LIFT (211)						1/2-KNEEL STAB CABLE CHOP (211)						WEEK 2	1/2-KNEEL CABLE LIFT (211)						1/2-KNEEL CABLE CHOP (211)					
10ea		10ea		10ea		10ea		10ea		10ea			10ea		10ea		10ea		10ea		10ea		10ea	
10ea		10ea		10ea		10ea		10ea		10ea		WEEK 3	10ea		10ea		10ea		10ea		10ea		10ea	
												RESTED SENSATION												
Circuit Block (Optional)						Circuit Block (Optional)						WEEK 1	Circuit Block (Optional)						Circuit Block (Optional)					
Pillar Bridge	20s	25s	30s			Alt Backward Lunge	10ea	12ea	15ea				Pillar Bridge	20s	25s	30s			2-Arm Row	15s	20s	25s		
	20s	25s	30s				10ea	12ea	15ea			WEEK 2		20s	25s	30s				15s	20s	25s		
Lat Pillar Bridge	15s	20s	25s			X-Pulldown	15s	20s	25s				Lat Pillar Bridge	15s	20s	25s			1-Leg Balance Squat	8ea	10ea	12ea		
	15s	20s	25s				15s	20s	25s			WEEK 3		15s	20s	25s				8ea	10ea	12ea		
PB Push-Up	6+	8+	10+			Alt Lateral Lunge	10ea	12ea	15ea				PB Bridge to Lower	6	8	10			Reverse Fly	15s	20s	25s		
	6+	8+	10+				10ea	12ea	15ea			TRAINING WILLINGNESS		6	8	10				15s	20s	25s		
PB Bridge to Lower	6	8	10			Straight Arm Pull-Down	15s	20s	25s			WEEK 1	Split Curl to Press	6	8	10			Step-Ups w/ Flexion	8ea	10ea	12ea		
	6	8	10				15s	20s	25s					6	8	10				8ea	10ea	12ea		
PB Straight Leg Bridge	20s	25s	30s			Iso Back Extension	Max	Max	Max			WEEK 2	Supine Pullover to Ext	6	8	10			Iso Back Extension	Max	Max	Max		
	20s	25s	30s			Off-Bench	Max	Max	Max					6	8	10			Off-Bench	Max	Max	Max		
												WEEK 3												
ESD						ESD						SORENESS SCALE	ESD						ESD					
REGENERATION PROTOCOL						REGENERATION PROTOCOL						WEEK 1	REGENERATION PROTOCOL						REGENERATION PROTOCOL					
												WEEK 2												
												WEEK 3												
												ESD TRAINING ZONES												
												Yellow Zone -												
												Green Zone -												
												Red Zone -												

IN SUMMARY

- Asymmetry is the 2nd major predictor of potential injury. *(second to prior injury history)*
- Program Balance allows us to clean up asymmetries, potentially decreasing the incidence of injury while increasing performance.

CHECK FOR LEARNING 03

- Asymmetries are the number two predictor of potential injury. Accounting for how training in the weight room either contributes to asymmetries or helps resolve them is extremely important.
  - Check your last three programs written for either a client or athlete and identify 3-5 ways it may be contributing to the development of asymmetries or correcting them.

EXOS 63

04 CLOSING

HISTORY | INFLUENCES | PERFORMANCE & INJURY | BALANCE

- The original roots of strength training established a foundation well suited for a narrow scope of function.
  - Rigid structure of facilities and methods have created a box within which athletes' training and development could be limited.

HISTORY | INFLUENCES | PERFORMANCE & INJURY | BALANCE

- Weightlifting and powerlifting have influenced the training environment in a positive way.
  - These sports have helped guide and develop athletes with skills and abilities with better carryover to dynamic sports, however limitations are still present.

HISTORY | INFLUENCES | PERFORMANCE & INJURY | BALANCE

- Training should both enhance sport performance and reduce potential for sport injury.
  - Responsible, holistic and integrated training systems help develop the complete athlete.

HISTORY | INFLUENCES | PERFORMANCE & INJURY | BALANCE

- By establishing a common language, and responsibly incorporating balance into athletic programming, we can better prepare athletes for the demands of sport and life.

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