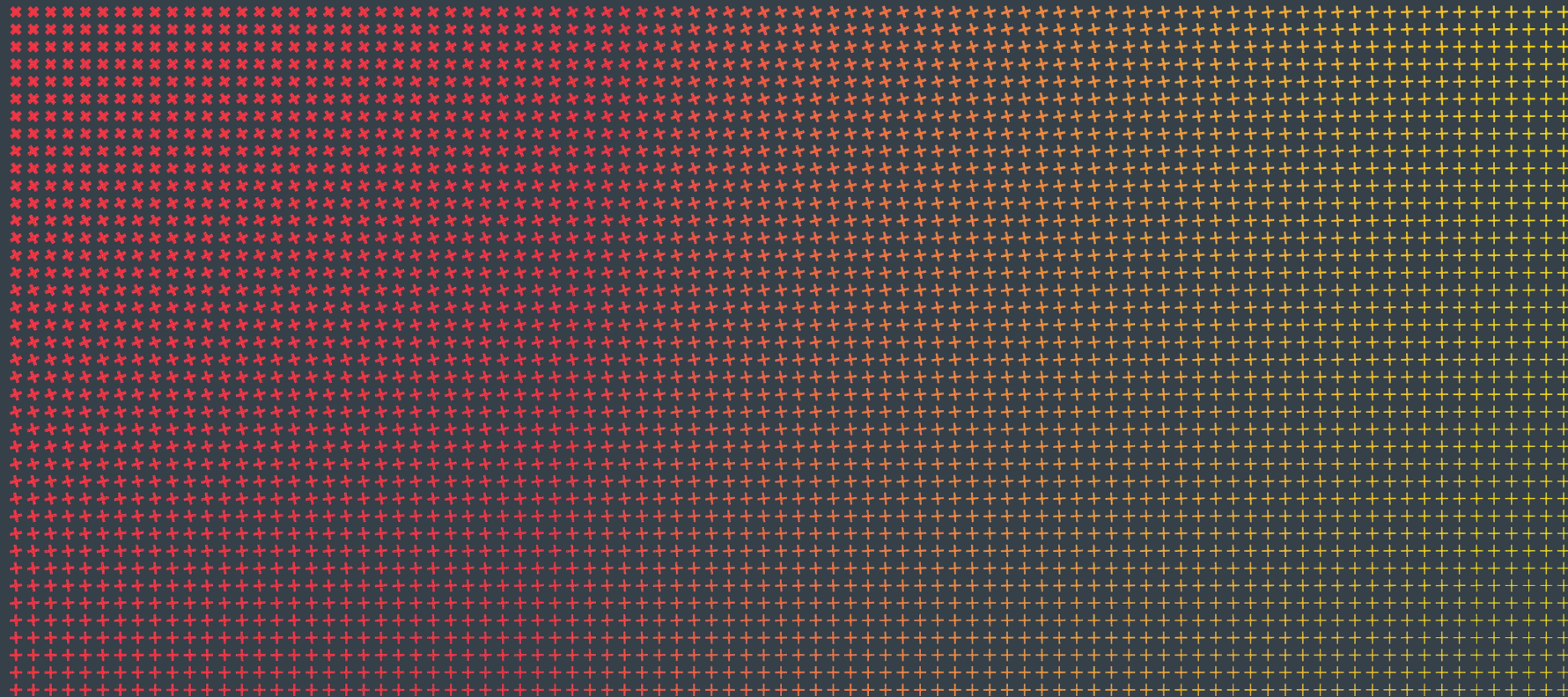


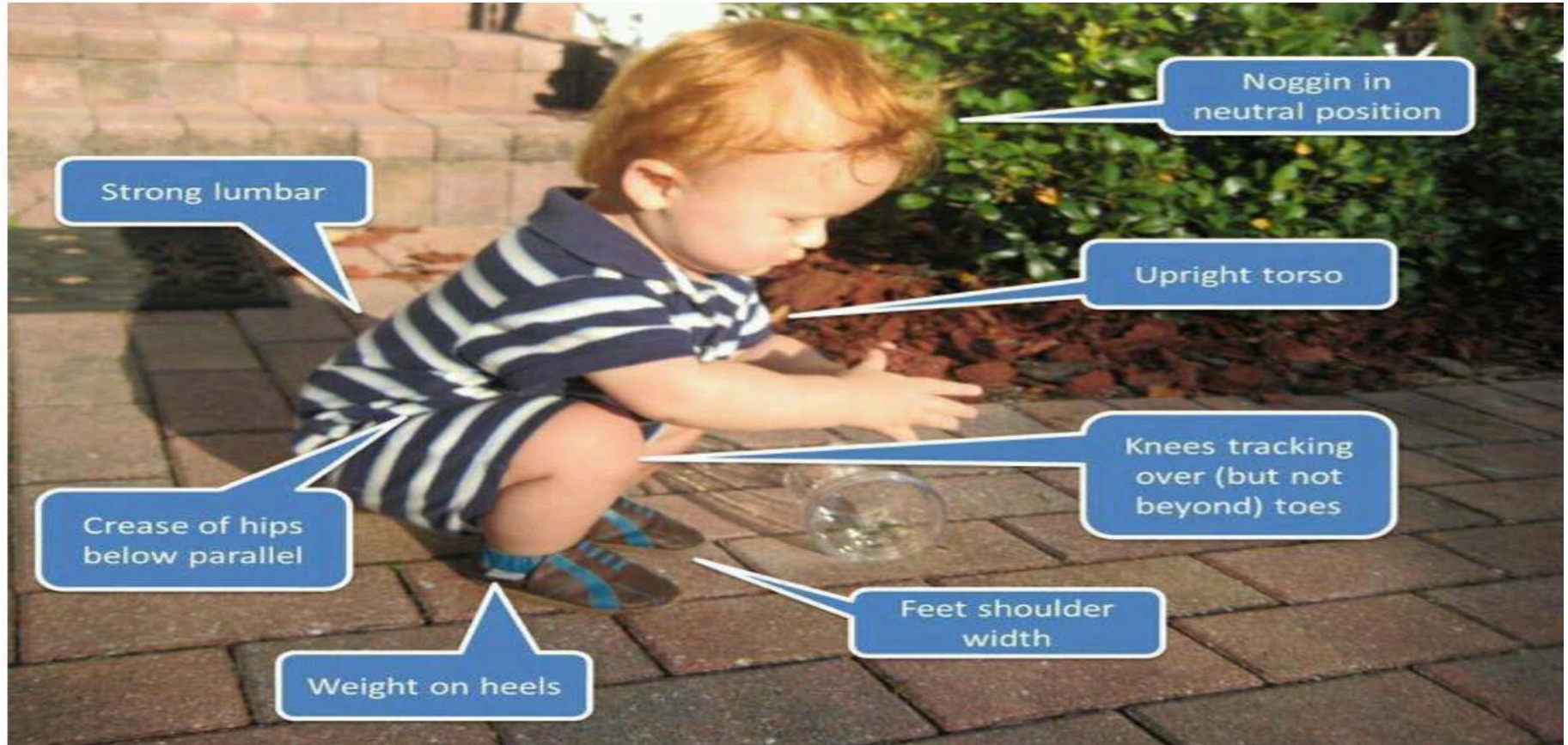


Function to Dysfunction; Training through Movement to Enhance Performance

AN APPROACH TO PROGRAM DESIGN



Naturally endowed....



Some maintain good function....

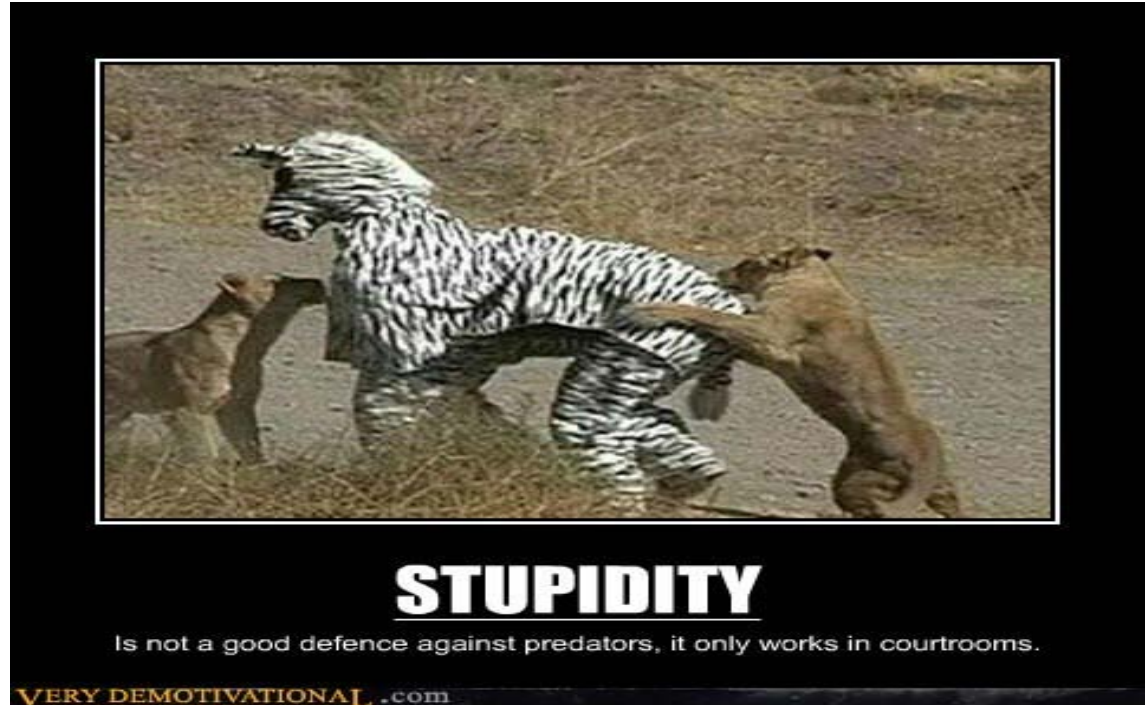


Others loose good function....



Biomarkers for injury risk

- Previous Injury
- Asymmetry
- Motor Control
- BMI
- Stupidity



Functional Movement Screen (FMS)

- What is FMS – 7 movement based exercises, graded out of 3 for each exercise. Overall total score given out of 21



Stepping



Squatting



Stepping



Lunging



Reaching



Leg Raising



Push-up



Rotary Stability

Pyramid of Function



A pyramid diagram divided into three horizontal layers. The top layer is red and labeled 'Skill'. The middle layer is green and labeled 'Performance'. The bottom layer is purple and labeled 'Movement'. The pyramid has a 3D effect with shadows on its sides.

Skill

Performance

Movement

01

INTRODUCTION

+ Why are we here?



THE MECCA
OF BODYBUILDING

MR. OLYMPIA

MR.

GOLD'S GYM
VENICE CA

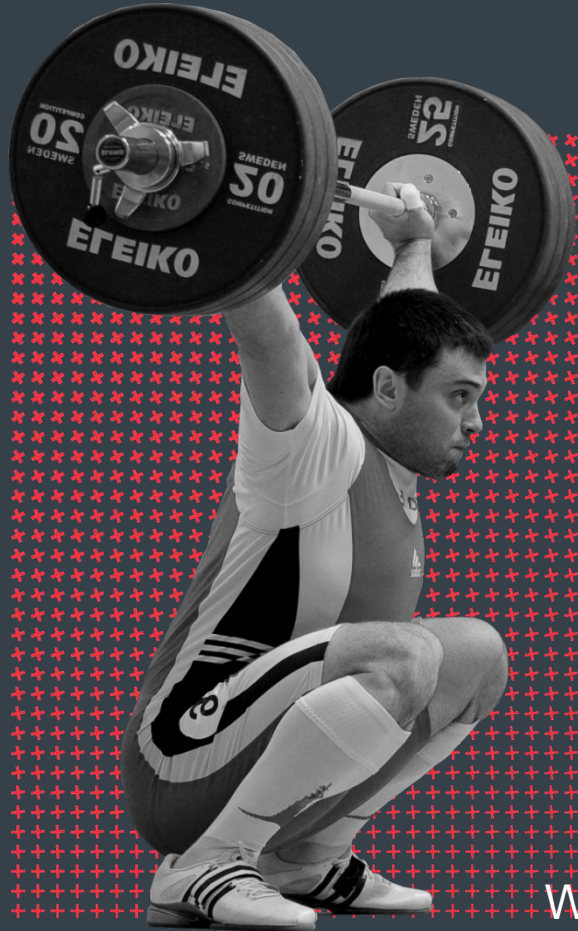
FREE LOTION

THIS SPACE FIT ONE GOAL WELL



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

But not just bodybuilding...



Weightlifting and powerlifting have also contributed

How has tradition
affected the way we prepare athletes?

METHODOLOGY MINDSET

- + Fitness
- + Body Building
- + Power Lifting
- + Olympic Lifting



- + Finite
- + One-Dimensional



Tradition has created a clearly defined
world with fixed rules...

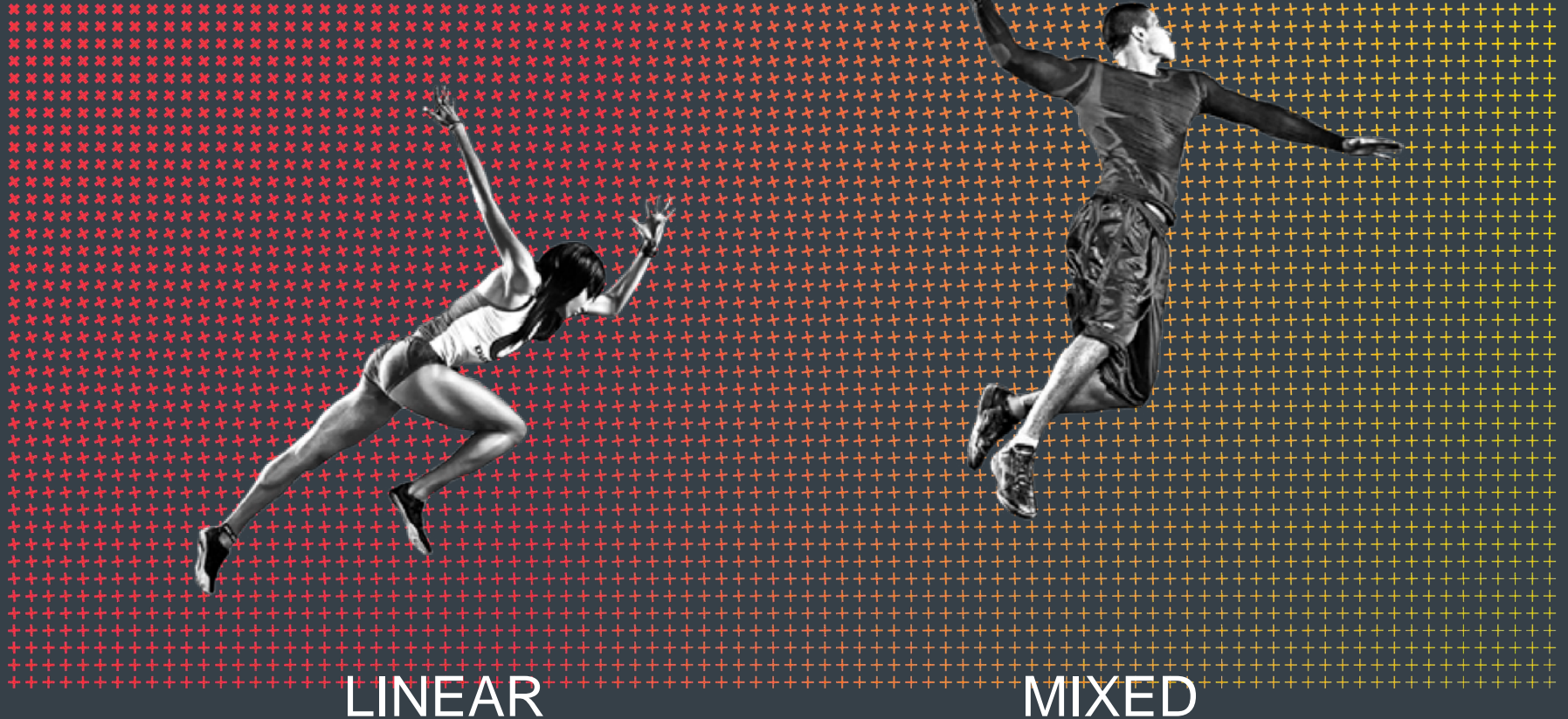


+ Extremely Powerful,
but expressed in one, fixed direction...



+ Sport requires skill to handle multiple demands,
on undefined terrains...

MULTIPLE PLANES OF MOTION FOR SPORT AND LIFE



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.

So what are the goals of training?

Training should reduce
injury potential





Training should
increase performance



FORGING AHEAD

- + 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.

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

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.

MOVEMENT TYPES CLASSIFICATIONS

TOTAL BODY

TOTAL BODY



```
graph LR; A[TOTAL BODY] --> B[PUSH]; A --> C[PULL];
```

A diagram illustrating the classification of movement types. On the left, a white rectangular box labeled "TOTAL BODY" has a small orange arrow pointing from its right side towards a vertical stack of two white rectangular boxes on the right. The top box in the stack is labeled "PUSH" and the bottom box is labeled "PULL".

PUSH

PULL

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.

MOVEMENT TYPES CLASSIFICATIONS

UPPER BODY

UPPER BODY

PUSH

PULL

HORIZONTAL

VERTICAL

HORIZONTAL

VERTICAL

2 ARM
1 ARM
ALTERNATING

2 ARM
1 ARM
ALTERNATING

2 ARM
1 ARM
ALTERNATING

2 ARM
1 ARM
ALTERNATING

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

MOVEMENT TYPES CLASSIFICATIONS

LOWER BODY

LOWER BODY

PUSH

PULL

2 LEG

1 LEG EMPHASIS

HIP DOMINANT

KNEE DOMINANT

2 LEG
1 LEG

2 LEG
1 LEG

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

Front Squat - Barbell



Forward Lunge - Dumbbell



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

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

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

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.

MOVEMENT TYPES CLASSIFICATIONS

ROTATIONAL

ROTATIONAL

STABILITY

PROPULSIVE

HIGH TO LOW
LOW TO HIGH
HORIZONTAL

HIGH TO LOW
LOW TO HIGH
HORIZONTAL

ROTARY STABILITY

Stability Chop – ½ Kneeling Cable (Bar)



Stability Lift – Half Kneeling Cable (Bar)



✦ Focal Points: Stable base, torso is trained statically

ROTARY PROPULSIVE

Rotational Chop – Seated Cable (Stability Ball)



Rotational Lift – Seated Cable (Stability Ball – Rope)



+ Focal Points: Kinetic linking, torso trained dynamically

TRAINING MOVEMENT PATTERNS

“If we train muscles we will forget Movements, but if we train Movements we will never forget muscles”

KEISER[®]
VS THE STATUS QUO

KINETIC CHAIN EXERCISES

UPPER LIMB

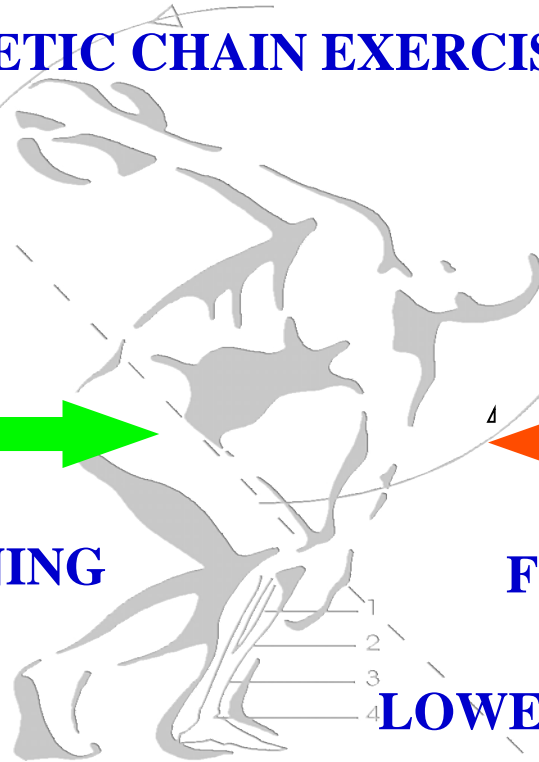
CORE

CERVICAL SPINE



FUNCTIONAL TRAINING

FUNCTIONAL REHAB



LOWER LIMB

SPORT SPECIFIC TRAINING

FOUNDATIONAL PHASES

FOUNDATION 1

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

FOUNDATION 2

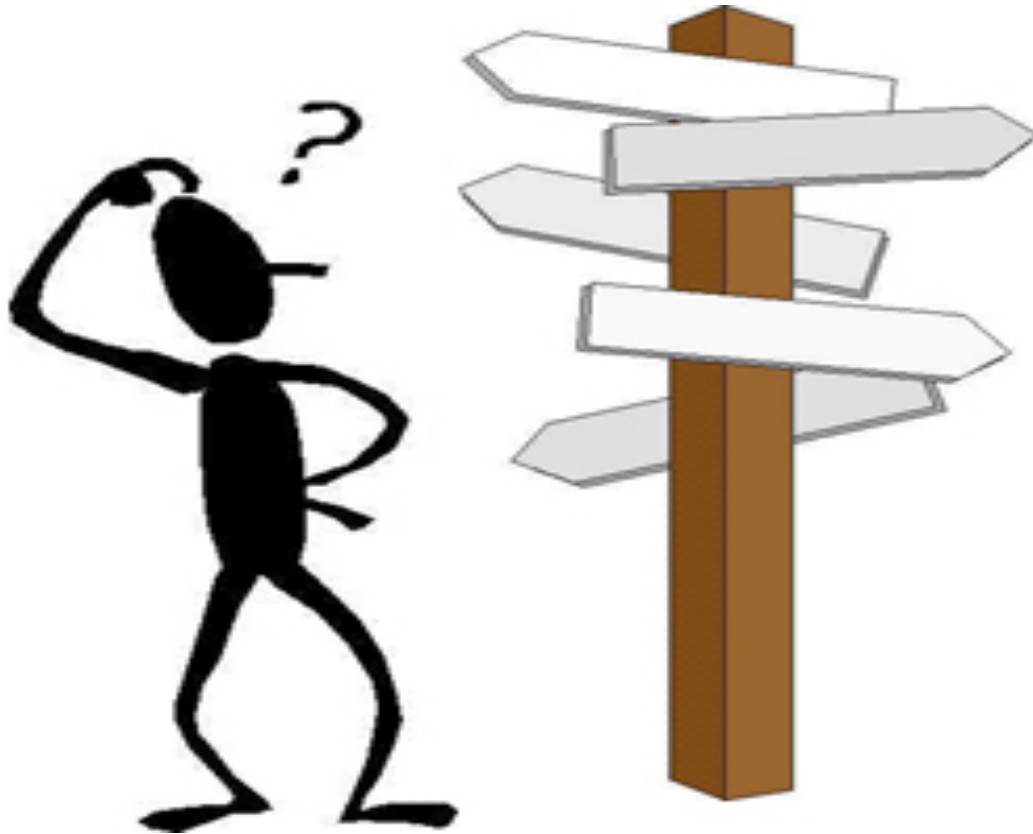
- same goals as F1
- increase density
- increase volume

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

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				B1			B1		
						WEEK 2						
						WEEK 3						
						LENGTH OF SLEEP						
						WEEK 1						
B2			B2			WEEK 2	B2			B2		
						WEEK 3						
						QUALITY OF SLEEP						
						WEEK 1						
Rotational Block 1			Rotational Block 1			WEEK 2	Rotational Block 1			Rotational Block 1		
C1			C1			WEEK 3	C1			C1		
						RESTED SENSATION						
						WEEK 1						
						WEEK 2						
						WEEK 3	Circuit Block (Optional)			Circuit Block (Optional)		
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 TRAINING ZONES	ESD			ESD		
REGENERATION PROTOCOL			REGENERATION PROTOCOL			Yellow Zone -	REGENERATION PROTOCOL			REGENERATION PROTOCOL		
						Green Zone -						
						Red Zone -						

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		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 Prone Y's and T's 2x10ea Alternating Pillar Bridge 2x5ea Glute Bridge 2x10 2s hold						A1 Sidelying Hip Abd and ER 2x10ea Kneel Diagonal Arm Lift 2x6-8ea DB Deep Squat Progression 2x6						1 2 3 4 5		A1 Prone W's and L's 2x10ea Alternating Pillar Bridge 2x5ea Glute Bridge Marching 2x10ea						A1 Sidelying Hip Add and IR 2x10ea Kneel Diagonal Arm Lift 2x6-8ea 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	TRAINING MONITOR		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	BODY WEIGHT		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			WEEK 1				Set 3	Load 3					Set 3	Load 3		
Strength Block 1						Strength Block 1						WEEK 2		Strength Block 1						Strength Block 1					
B1 Staggered Standing T's x10						B1 AIS 1/2 Kneeling Hip Flexor x10ea						WEEK 3		B1 Leg Lowering Progression x6-8ea						B1 Supine Lat Stretch Press x10					
1-ARM DB BENCH PRESS (211)						1-LEG BALANCE SQUAT (321)						LENGTH OF SLEEP		2-LEG/2-ARM DB RDL (321)						NEUTRAL GRIP PULL-UP (211)					
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea		WEEK 1		8-10		8-10		6-8		6-8		6-8			
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea		WEEK 2		8-10		8-10		6-8		6-8		6-8			
		8-10ea						8-10ea				WEEK 3				8-10						6-8			
AIS Hamstring 90/90 Stretch x10ea						B2 Reach, Roll, and Lift Stretch x10ea						WEEK 1		B2 Staggered Standing W's						B2 Split Rot Core Board Stretch x10ea					
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		WEEK 3		8-10ea		8-10ea		6-8ea		10s ea		15s ea			
8-10ea		8-10ea		6-8ea		8-10ea		8-10ea		6-8ea		QUALITY OF SLEEP		8-10ea		8-10ea		6-8ea		10s ea		15s ea			
		8-10ea						8-10ea				WEEK 1				8-10ea						15s ea			
Rotational Block 1						Rotational Block 1						WEEK 2		Rotational Block 1						Rotational Block 1					
C1 T-Spine w/ Tennis Ball 3placesx5ea						C1 Seated Trunk Rotation x6 ea						WEEK 3		C1 Quadruped Reaching-Opposites x10ea						C1 Prone Pillar Alt Reach x6-8ea					
1/2-KNEEL STAB CABLE LIFT (211)						1/2-KNEEL STAB CABLE CHOP (211)						RESTED SENSATION		1/2-KNEEL CABLE LIFT (211)						1/2-KNEEL CABLE CHOP (211)					
10ea		10ea		10ea		10ea		10ea		10ea		WEEK 1		10ea		10ea		10ea		10ea		10ea			
10ea		10ea		10ea		10ea		10ea		10ea		WEEK 2		10ea		10ea		10ea		10ea		10ea			
												WEEK 3													
Circuit Block (Optional)						Circuit Block (Optional)						TRAINING WILLINGNESS		Circuit Block (Optional)						Circuit Block (Optional)					
Pillar Bridge			20s	25s	30s	Alt Backward Lunge			10ea	12ea	15ea	WEEK 1		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	WEEK 3		Lat Pillar Bridge			15s	20s	25s	1-Leg Balance Squat			8ea	10ea	12ea
			15s	20s	25s				15s	20s	25s						15s	20s	25s				8ea	10ea	12ea
PB Push-Up			6+	8+	10+	Alt Lateral Lunge			10ea																

QUESTIONS



Contact Details

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EXOS EVERY DAY IS
GAME DAY™

APPENDIX

- + Garhammer, J., & Takano, B. (1992). Training for weightlifting. *Strength and power in sport*, 357-369.
- + Siff, M. C., & Verchošanskij, J. V. (2004). *Supertraining*. Supertraining Institute.
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- + Bompa, T. O., & Carrera, M. (1999). *Periodization training for sports* (pp. 83-93). Champaign, IL: Human Kinetics.
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APPENDIX

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- + Schwarzenegger, A., & Dobbins, B. (1998). *The new encyclopedia of modern bodybuilding*. Simon and Schuster
- + Schwarzenegger, A. (1993). *Arnold*. Simon and Schuster.