



Principles of Individual Training

HOW TO CREATE YOUR AT-HOME TRAINING PROGRAM

PART OF THE FUSION SEMINAR SERIES

GREG RUBENDALL - DIRECTOR OF PROGRAMS



Seminar Overview

- The Reasoning Behind Your Training Program
- Nutrition and Exercise Physiology
- 7 Principles of Training
- The FITT Principle
- Areas of Fitness Development
- Types of Programming
- Structuring a Workout Routine
- Elements in Setting up your Individual Schedule



Purpose of this Seminar

- To Provide an Overview of the Basics of Individual Training as They Relate to Elite Youth Soccer Players

Requirements for Soccer

1. Technical
 - Competence in Necessary Skills (Dribbling, Passing, Defending)
2. Tactical
 - Deep Game Understanding
3. Physical
 - Optimize your Personal Attributes
4. Psychological
 - Commitment, Motivation
5. Social
 - Teamwork, Connection, Leadership

THE FIVE PILLARS OF PLAYER DEVELOPMENT





Positional Requirements

Player Needs Vary:

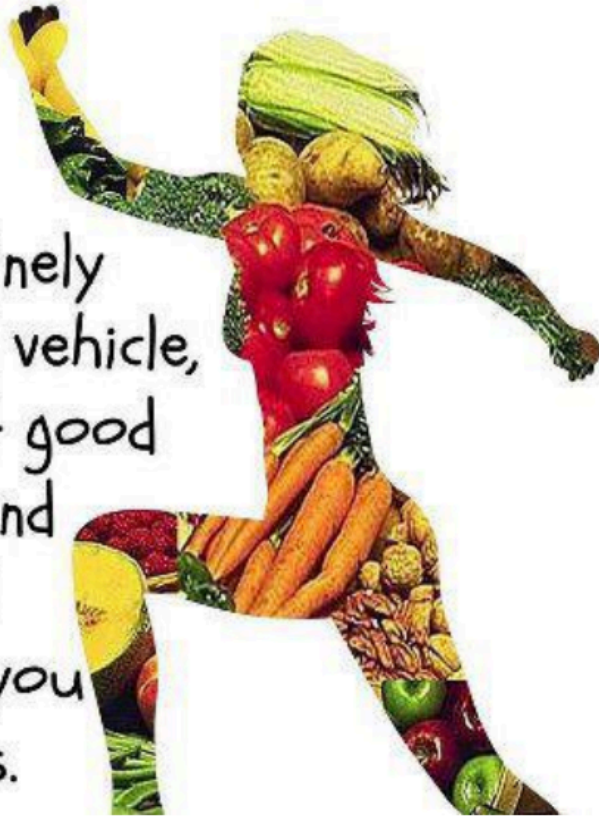
- Goalkeeper
- Central Defender
- Outside Defender
- Holding Midfielder
- Attacking Midfielder
- Winger
- Striker

THE FUSION GAME MODEL - 11V11



Nutrition for Soccer

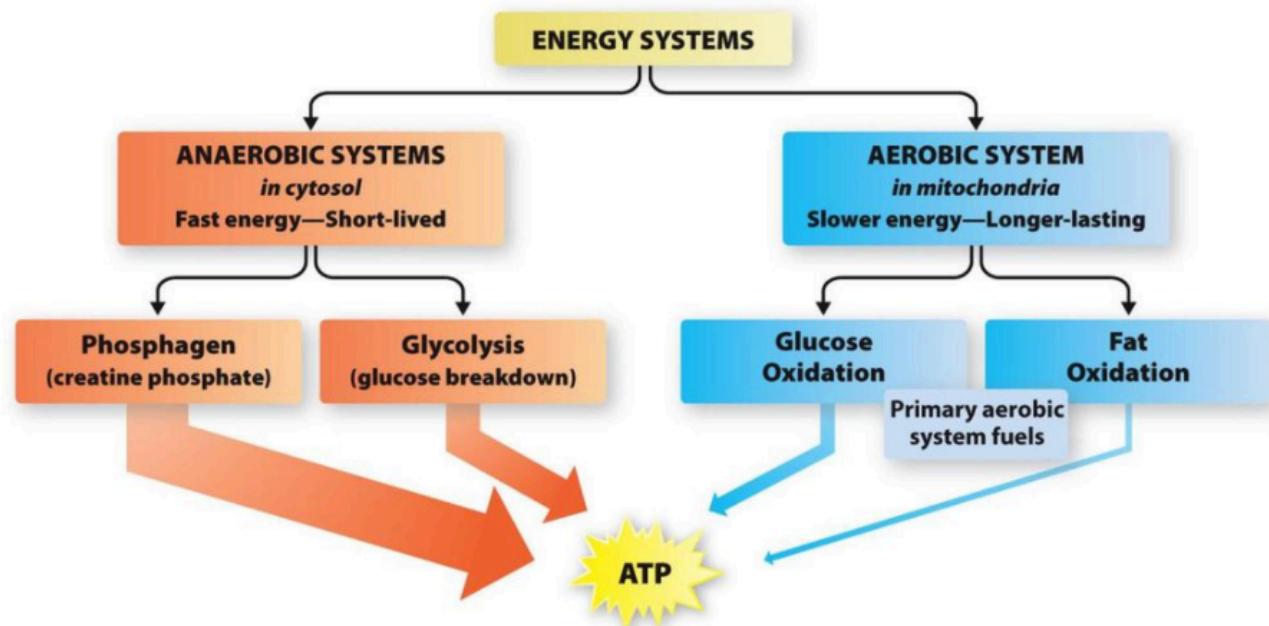
Your body is a finely tuned vehicle, give it good fuel and it will take you places.



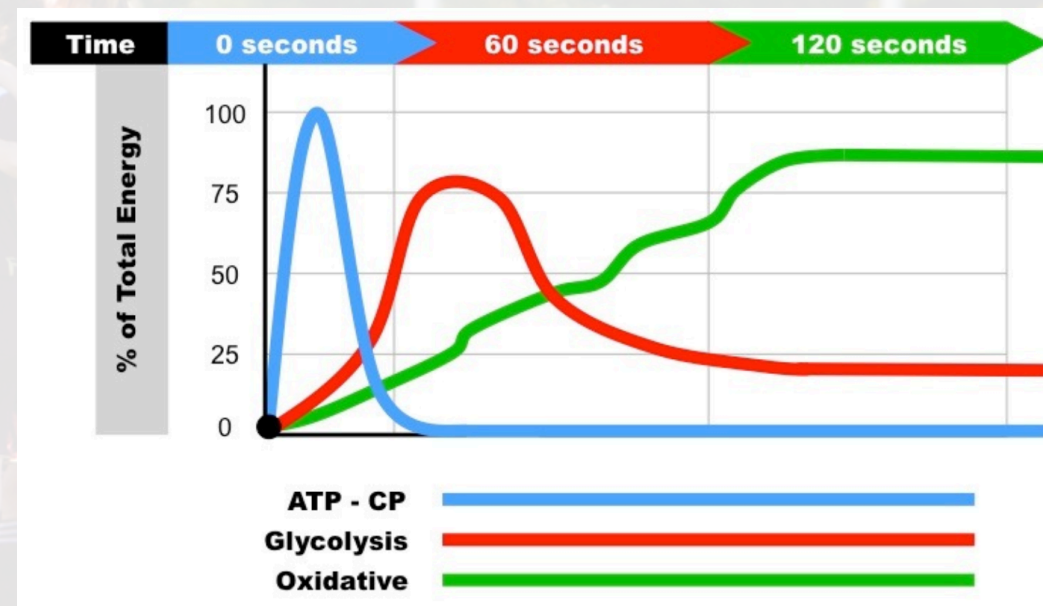
1. Avoid Processed Foods
2. Eat a Variety of Fruits and Vegetables
3. Choose Lean Proteins
4. Choose Healthy Fats
5. Choose Whole-Grain Carbohydrates
6. Eat Breakfast Every Day
7. Fuel Up for Training
8. Stay Hydrated
9. Recovery Nutrition is Key

Essentials of Exercise Physiology

Energy-Producing Systems in the Body



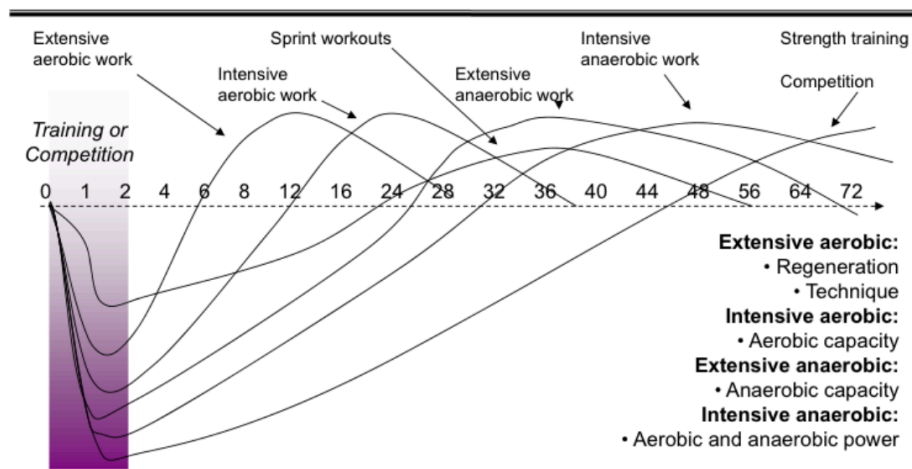
Arrow thickness represents the relative speed of ATP production of each energy system.



The Training Effect & Supercompensation

- Extensive Aerobic
 - Regeneration
 - Technique
- Intensive Aerobic
 - Aerobic Capacity
- Extensive Anaerobic
 - Anaerobic Capacity
- Intensive Anaerobic
 - Aerobic and Anaerobic Power

TIMING OF SUPER-COMPENSATION (Overload)



Training Types	Extensive Endurance	Intensive Endurance	Sprints/ Short Sets	Extensive Anaerobic Training	Extensive Strength Training	Intensive Anaerobic Training	Intensive/ Strength Training/ Competition
From	8	24	30	36	40	40	48
To	12	30	40	48	60	60	72

7 Principles of Training

➤ How do you Develop Fitness?

Exercise Selection

Muscle confusion is kind of a made up thing. Stick with the basics.

Training Volume

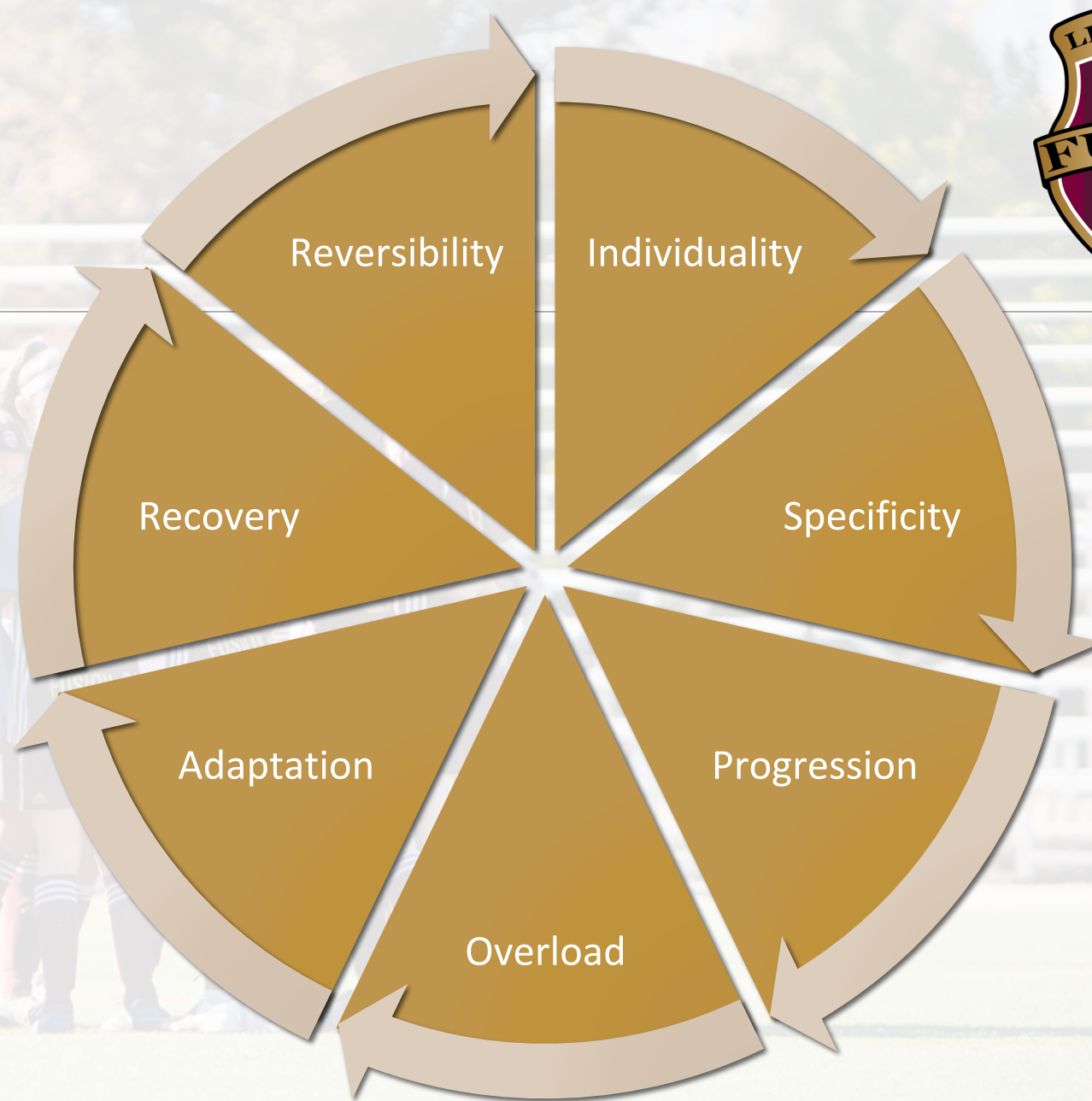
Often times, less is more.

Progressive overload

A progressively challenging training program is ideal. Make small adjustments over long periods of time.

(S.A.I.D) Specific Adaptations to Imposed Demands

Muscles must be challenged in order to improve function



Principle - INDIVIDUALITY

- Individuality
 - Training Volume and Intensity Varies
 - Genetics
 - Muscle composition
 - Lifestyle
 - Chronological Age
 - Biological Age
 - Mental State



Principles - SPECIFICITY

- Specificity
- Improvement is based on sport-specific movements
- Fitness can crossover, but must have a routine that mimics the game
- Balance in programming is key as well



Principle - PROGRESSION

- Progression
- Incremental steps taken to increase in various areas
- Must address:
 - All 3 Energy Systems
 - Physical Capacities
 - Technical Abilities



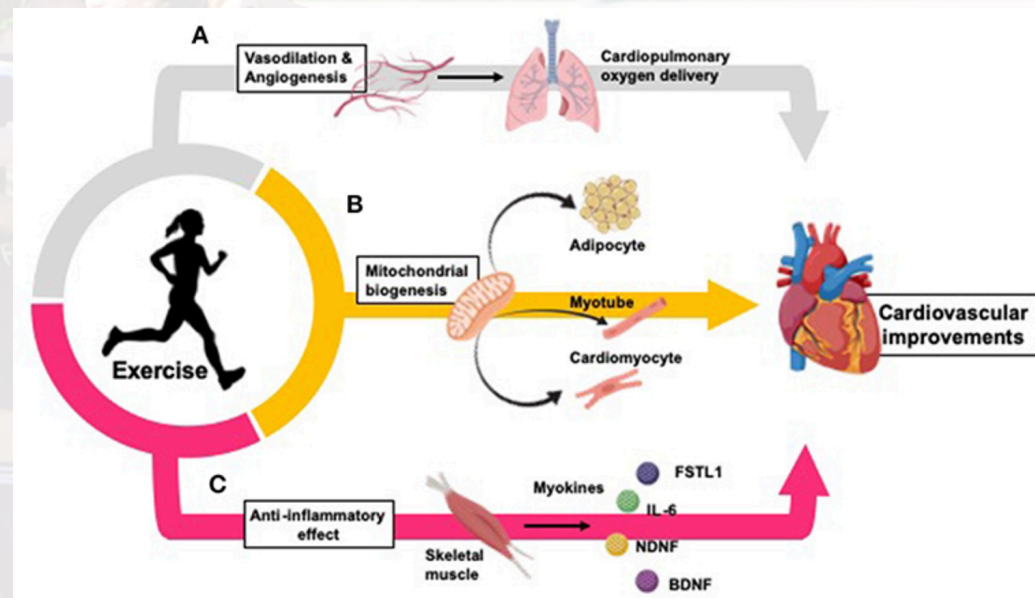
Principle - OVERLOAD

- Overload
 - Addition of New Stimulus
 - Resistance (Load)
 - Time
 - Intensity
 - Improvements at metabolic and structural level are key
 - Must prevent working outside of capacity to avoid injury



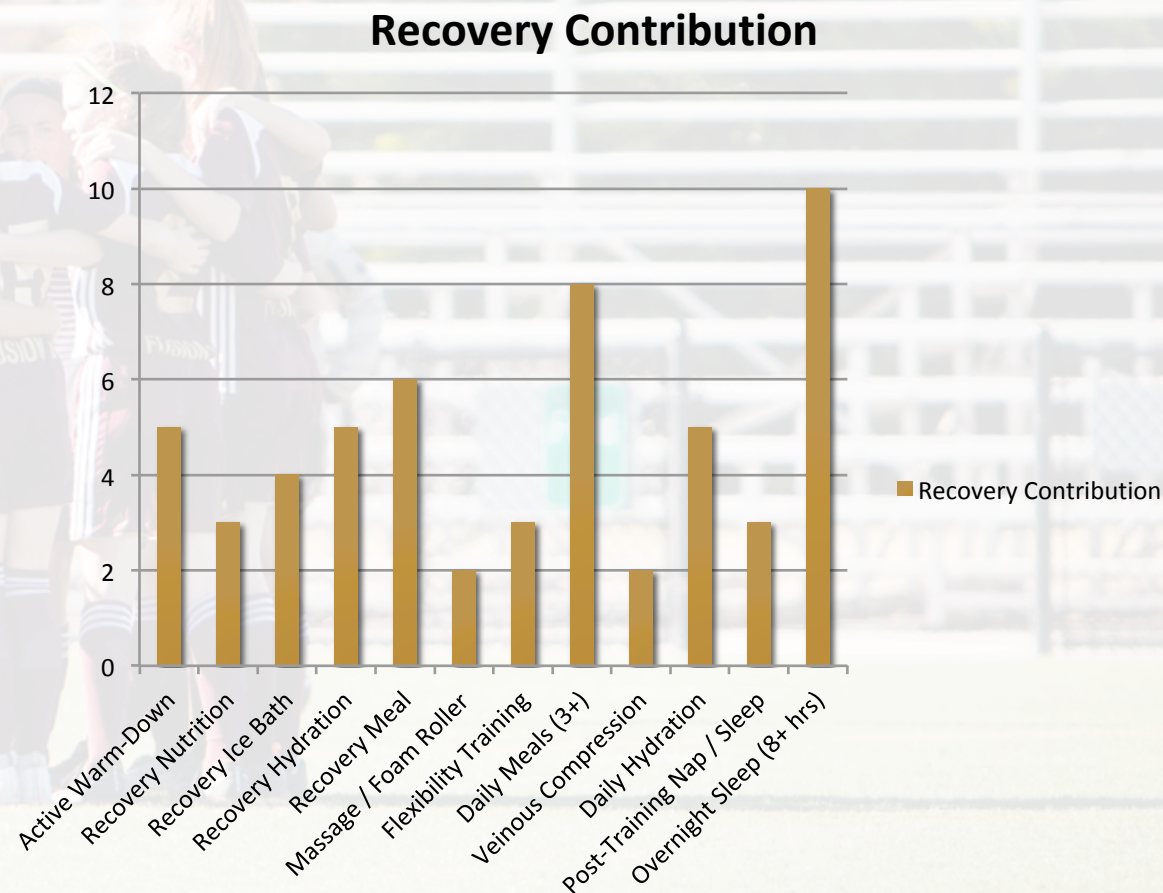
Principle - ADAPTATION

- Adaptation
 - Body adjusts to stimulus over time
 - Respiratory – Cellular - Muscular
 - Improved efficiency of movement and less effort needed to complete tasks
 - These responses require Progressive Overloading for continued improvements



Principle - RECOVERY

- Recovery
 - Body needs time to recover from exercise
 - Must find the right time frame of rest to next bout of work
 - Finding a balance prevents injuries, overtraining, and effects of detraining
 - Active Recovery is Key



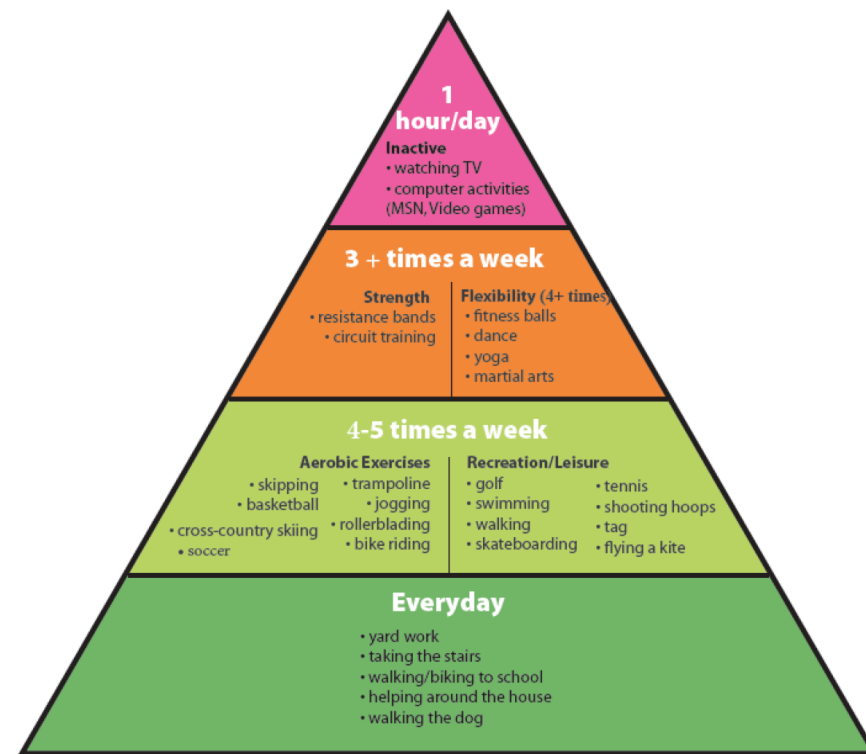
Principle - REVERSIBILITY

- Reversibility
 - Stopping your training regimen causes you to lose gains
 - “Use It or Lose It”
 - Detraining effects start almost immediately after supercompensation
 - Muscular Atrophy begins after 2-3 weeks



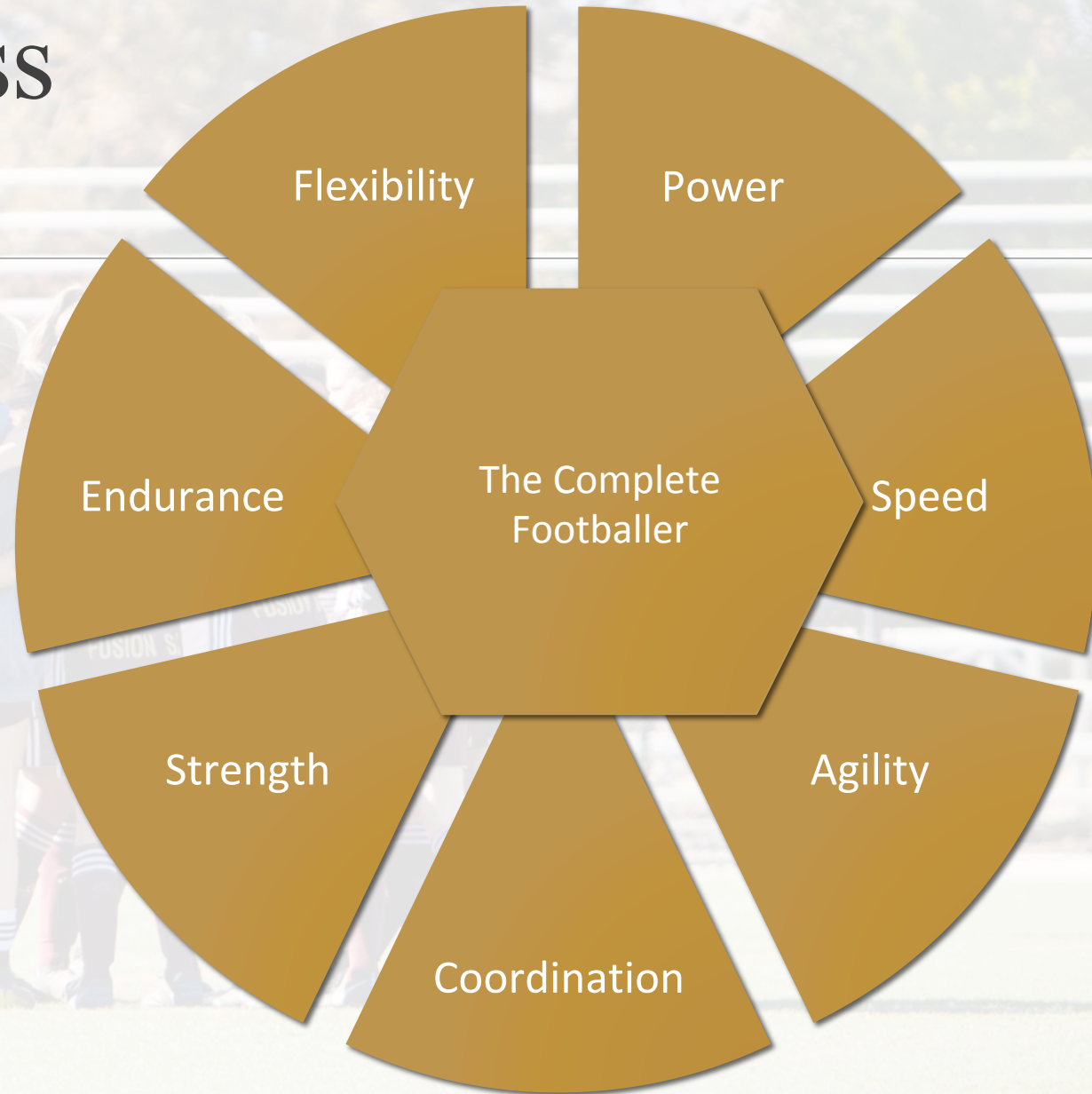
The FITT Principle

- Frequency
 - How often?
- Intensity
 - How much effort?
- Time
 - How long?
- Type
 - What is the goal?
 - Exercise selection is key



Areas of Fitness Development

- Power
- Speed
- Agility
- Coordination
- Strength
- Endurance
- Flexibility





Types of Programming

- Technical Execution
- Resistance
- Circuit
- Isometric
- Plyometric
- Interval Training
 - HI -> MI -> LI
- Energy System Training
 - Aerobic
 - Lactate Clearance

HIIT Workout Examples

HIIT Workout	Work / Rest Intervals	Sets	Total Duration	Benefits
Tabata	20 sec. / 10 sec.	8	4 min.	One of the most popular styles of HIIT that improves conditioning and burns an elevated amount of Calories in only 4 minutes of work.
Sprint	30 sec. / 4 min.	4-6	18-27 min.	Although the rest interval is eight times as long as the work interval, it is one of the most challenging HIIT workouts, as it calls for a max-effort Sprint.
Short Sprint	8 sec. / 12 sec.	60	20 min.	A less demanding HIIT workout that's been proven effective for conditioning and fat loss.
One-to-One	30 sec. / 30 sec.	10	10 min.	The One-to-One HIIT workout is easy to perform and can be quickly adapted to your fitness by either increasing the work or decreasing the rest.
Tempo Runs	40-Yard Sprint/ Walk back to start	MAX	10 min.	Tempo Runs involve an 80-percent run and is one of the most effective ways to improve your conditioning.
Sport-Specific	15 sec. / 35 sec.	7-10	6-8 min.	This is an example of how intervals can be adapted for your sport (in this case football) by changing the work and rest intervals to simulate the workload of that sport.



Structuring a Strength Workout Routine





Structuring a Workout Routine

	4/20/2020 Monday	4/21/2020 Tuesday	4/22/2020 Wednesday	4/23/2020 Thursday	4/24/2020 Friday	4/25/2020 Saturday	4/26/2020 Sunday
Technical	OFF	Workout		Workout		Challenge	Testing
Tactical			Match Analysis - Team		Match Analysis - Team		Match Observation
Psychological		Visualization	Concentration	Relaxation	Performance	Leadership	Reflection
Physical			Strength Workout		Agility Workout	Foam Rolling Workout	Endurance Workout
Social		Challenge - Topya	Social Media Post	Call Teammate	FIFA Tournament	Small-Sided Game	Make Video



Elements Setting Up Your Schedule

- Reviewing your Individual Development Plan
- Determining your Short Term Goals
- Evaluating your Weekly Schedule
- Prioritizing your Workouts
- Keeping Accountability



Conclusion

- The Theoretical Background of Training Will Lead to Balanced Training Programs
- Programming Must be Balanced and Individualized for the Needs of the Player Based on
 - Age
 - Position
 - Current Fitness
 - Stated Goals
- These Tenets Will Guide our Structured Individual Programs



NEXT SESSION

WEDNESDAY

APRIL 22, 2020

4:00PM – 5:00PM

FACEBOOK LIVE

@LIVERMOREFUSIONSC

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- A background image showing a girls' soccer team in blue jerseys and black shorts huddled together on a grass field. The image is semi-transparent and serves as a backdrop for the text.
- CREATING AN INDIVIDUALIZED PROGRAM TO MEET YOUR NEEDS
 - IDEAS FOR TRAINING PROGRAMS IN VARIOUS AREAS



Further Resources

Kirkendall, D.T. The Physiology of Soccer (ed. W.E. Garrett and D.T. Kirkendall). Philadelphia: Lippincott Williams & Wilkins, 2000. Pp. 875-884.

Reilly, T. and V. Thomas. A motion analysis of work-rate in different positional roles in professional football match-play. *Journal of Human Movement Studies*, 2: 87-97.

Casajus, J.A. Seasonal variation in fitness variables in professional soccer players. *Journal of Sports Medicine and Physical Fitness*, 41(4): 463-469, 2001.

Franks, A.M., A.M. Williams, T. Reilly, and A.M. Neville. Talent identification in elite youth soccer players: physical and physiological characteristics. *Science and Football IV* (eds. W. Spinks, T. Reilly, A. Murphy). London: E & FN Spon, 2002. Pp. 265-270.

Rebelo, A.N., and J.M.C. Soares. Endurance capacity of soccer players pre-season and during the playing season. *Science and Football III* (eds. T. Reilly, J. Bangsbo, and M. Hughes). London: E & FN Spon, 1997. Pp. 106-111.

Bangsbo, J., and M. Mizuno. Morphological and metabolic alterations in soccer players with detraining and retraining and their relation to performance. *Science and Football* (eds. T. Reilly, A. Lees, K. Davids, W.J. Murphy) London: E & FN Spon, 1988. Pp. 114-124.

Reilly, T. and M. Rigby. Effect of an active warm-down following competitive soccer. *Science and Football IV* (eds. W. Spinks, T. Reilly, A. Murphy). London: E & FN Spon, 2002. pp. 226-229.