

Goal #1 - Know Thy Food Fuels

Fuel/Substrate	Transported as in blood	Stored as in muscle	Food example
Creatine		Phosphocreatine	Fish
Carbohydrates	Glucose	Glycogen	High GI = Lollies Low Gi =Multigrain bread
Lipids	Free Fatty Acids	Triglycerides	Avocado
Protein	Amino acids	Amino Acids	Steak

Goal #2 - Know Thy Energy Systems

	ATP-PC	Anaerobic Glycolysis	Aerobic Glycolysis	Aerobic Lipolysis
Fuel	PC	CHO	CHO	Fats
Rate	Fastest	Fast	Medium/Slow	Slowest
Yield	Very Small <1mol	Small 2-3mol	Large 30-40mol	Very Large 150+mol
Event	100m	400m	Triathlon	Ultra Marathon
Duration (Predominant)	0-10sec	10-60sec	1 min+	1.5 - 2+ hours
Intensity	Maximal 95%+	Maximal 85-95%	Submaximal 70-85%	Submaximal/Rest
By-products	ADP, Pi	H+ ions, ADP, Pi	H2O, CO2, Heat	H2O, CO2, Heat
Advantages	<ul style="list-style-type: none"> - Very Fast ATP Resynthesis. - Short chemical reaction - No waste products 	<ul style="list-style-type: none"> - Fast ATP resynthesis. - High Intensity 	<ul style="list-style-type: none"> - Long duration - Non fatiguing by products 	<ul style="list-style-type: none"> - Large amount of oxygen per molecule. - Non fatiguing by products
Disadvantages	<ul style="list-style-type: none"> - Very small yield. - Limited stores of ATP and PC 	<ul style="list-style-type: none"> - H+ ions cause high level of fatigue. - Small yield compared to aerobic system. 	<ul style="list-style-type: none"> - Slow ATP Resynthesis. 	<ul style="list-style-type: none"> - Very slow ATP resynthesis. - Require large amounts of oxygen and time.

Goal #3 - Know Thy Fatigue and Recovery Mechanisms

	Example event	Fatigue Mechanism	Best Recoveries
ATP-PC	100m	Fuel Depletion - PC	Passive Recovery
Anaerobic Glycolysis	400m	Accumulation of metabolic byproducts	Active Recovery Massage Hydrotherapy
Aerobic	Marathon	Fuel Depletion - CHO	High GI Foods
Aerobic	Triathlon in the heat	Elevated Body Temp/ Dehydration	Hydration

Goal #4 - Review and Relearn

After reviewing your summary and Socratic results, what are 5 things that you need to learn and a strategy how you will attempt to learn them

1. _____

Strategy: _____

2. _____

Strategy: _____

3. _____

Strategy: _____

4. _____

Strategy: _____

5. _____

Strategy: _____