

# ENERGY TRAINING SYSTEM



When talking about wrestling, all four energy systems are going to be used, Phosphagen (ATP-PC, Adenosine Triphosphate-Phosphocreatine), Fast Glycogen (Lactic Acid), Fast Glycogen & O2 (Lactic Acid & Aerobic), and O2 (Aerobic). Wrestling is such a grueling and demanding sport, the competition and training phases are very different. This is due to the demands of the four energy systems needed to be trained and we are at the maximum of all in order to get the upper hand or the edge when competing In a wrestling match, a wrestler is going to use various scenarios of the use of ATP with short bursts and explosions. The ATP-PC system is for quick, powerful, and relatively short duration of movement and is very important in wrestling (Klinzing, 1986). My example of the single-leg change to double takedown relies majority on the ATP-PC energy system due to its short duration, high intensity, strength, power, and speed needed to perform the task. On the wrestling mat during a match we ATP-PC are predominantly the major system we see the most frequent but not limited too in the slightest. Over a six minute match he will have to explode up, through, around, over, elevate, pull, and maneuver all over the mat with speed, strength, and power in short isolated bursts. This does not happen as just short bursts all the time.

Flurries (move, to move, to move...) happen frequently and for prolonged periods of time with high frequency efforts which often makes the wrestler have to be able to rely on the Fast Glycolysis and O2 thresholds to get them through the situations in an

opportunistic fashion. Since the muscular efforts are at such a high intensity for extended periods of time the levels of muscle and blood lactic acid reaches a peak during the course of a match. This is trained by multiple of repetitions and frequencies of the activity throughout practice scenarios or also called interval training (Baechle & Earle, 2008). All moves should be performed with high intensity and frequency during a match therefore the wrestler needs to be able to endure and tolerate fatigue and pain which will be brought on from the lactic acid system build-up (Klinzing, 1986). When getting to the state series and the majority of the wrestlers are all on the same level, it may take an extended amount of time to achieve just one takedown finish with constant movement. The last example of lactic acid system and a great example of isometric strength is when, the wrestlers are on the mat and one wrestler is trying to turn and the other is trying to escape (Baechle & Earle, 2008). The constant pressure, holding, and squeezing down of the offensive (top) man not allowing the defensive (bottom) man to explode, push, spin, roll, or flip to escape or get to his feet. You can be sure that both men are being affected by the full lactic acid system from continues muscular struggle to show or gain control, which produces high levels of lactic acid and muscle fatigue (Klinzing, 1986).

When a match goes the distance (six plus minutes) and at high pace, high tempo match has evolved; the wrestler needs to make sure he has the base and energy system of training of endurance of aerobic system (O2) to maintain the advantage by providing power and force under these conditions of such high repetitions. The O2 system will also be used as the main weight cutting agent to allow the wrestlers to go out and run/exercise for a long duration to sweat out the weight he needs to cut. Wrestlers have to be able to endure little rest throughout a match. Realistically a match only has about

10-15 seconds between periods and out of bounds situations. The ability to partially replenish the ATP-PC system is allowed by the aerobic system, and allow the wrestlers to reuse ATP-PC multiple times in a match (Klinzing, 1986). Exhaustion is a one word summation of a complete wrestling match. The blood levels of lactic acid at the end of a wrestling match is among the highest of all sports (Klinzing, 1986).

Wrestling is a very physically demanding sport which calls for an extremely high level of conditioning. Conditioning for wrestling calls for high intensity training. In addition wrestling not only requires high intensity power output but an ability to sustain this output for up 6+ minutes. Cardiovascular conditioning is one of the most important aspects of a wrestlers training but many times we see wrestlers during the season running for miles only to find themselves tired after the first minute of a match. Many coaches ask why this is; the answer is simple, they are training the wrong energy system.

#### Individuality

The population of my wrestling team ranges from 14-18 years of age of both male and female athletes. Their weights range from 103-285 pounds (14 different classes), and maturity levels from pre-pubescent to fully developed men/women. I see athletes ranging from thin, long, lean, fat, chubby, muscular, tall, short, round, heavy, and obese. This does posse a problem when trying to develop a training program for everyone. This sport is not limited to just one type of body size or composition, with only the limitation of the individual is the weight classes he/she chooses to go. Therefore, I need to pay close attention to all my wrestlers and their individual needs and goals. There are some that want to gain muscle mass and others getting lean body mass. All of which do want an increase in strength, power, speed, and of course endurance. The biggest characteristic of

an individual that may affect the program design due to maturity, body size, and posture would be my little guys'. This would range from 119 pounds and below due to low maturity or lack there of and small body size due to being a late bloomer (pre-pubescent). This is an area I need to be very careful. Trying to push these young individuals too hard, to soon could be detrimental to their growth and development later in life. This is why I pay strong attention to them and use the staircase principle consistently and often. I need to make sure I meet these individuals' needs and training goals, along with identifying the wrestler's fitness levels (Fleck & Kraemer, 1997).

#### Modes.

The sport of Wrestling will use both the Continuous and Discontinuous stimuli. The Continuous stimuli will be encountered mainly for the O2 base demand of the sport. This will allow the wrestler to recover in the short breaks of action in a match from the lactic acid state he may be in. This stimulus will also be used in the weight cutting demand the wrestlers are taxed with by being able to go out and run multiple continuous miles. Discontinuous stimuli will be encountered as the main training mechanism for the ability to handle the ATP-PC, Lactic Acid, and Lactic Acid & aerobic state in which they will be put through in the series of a match or multiple matches in a single day. Wrestling is an intense short burst explosive sport using predominately anaerobic energy sources.

Wrestling is also a mixed sport were all energy systems are used in training and competition. Wrestlers need endurance which may not the same endurance as a distance runner, but they still need endurance to succeed.

The modes of wrestling have to be broken up into two different groups: running and wrestling. This is achieved multiple ways in a season and depending on the ability,

maturity, and experience of the team. As a coach, we have to be able to see who can handle what. The ways we incorporate them are by:

- 1) Double Sessions- 1 session in the morning of running, sprinting, and physical exercise.

  Distance running (O2) followed by short quick interval burst training in running, physical training, plyometrics, and rope climbing (ATP-PC, Lactic Acid, and Lactic Acid and O2).

  The after school practice will incorporate the interval wrestling training.

  \*Noted this can be flipped around if your facility allows for it.
- 2) Single Sessions- In one practice the coaches have to be able to achieve both the running and wrestling intervals together, to get the maximum taxation of the body required for the sport.

#### **Energy Training System**

This system has been set up for the week prior to wrestling competition and the first week of wrestling competition.

#### Running Systems (Minutes)

Work Distance- Short and less then 90seconds of length. (Totaling 20-30 minutes)

Work Intensity- 100% effort

Relief Duration- 2 X's the work (1 minute of exercise = 2 minutes of rest)

Relief Type- Active rest. This will involve bee-bopping (bouncing in place), jump rope, and walking to name a few.

#### Wrestling Systems (Minutes)

Work Distance- 20-30 minutes.

Work Intensity- Maximum to submaximal intensity

Relief Duration - .5 to 1: work minutes

Relief Type- Rest (active or non-active), get a drink, bathroom break, change shoes, or what needed but be ready to go on the whistle.

#### Exercise Volume-

Running: (Minutes) Less than 90 seconds with half to full rest/recovery Wrestling: (Minutes) 20-30 minutes at maximal to submaximal effort

Exercise Frequency- 2 X's a day or double sessions. The reason for double sessions is all four energy systems need to be trained for a wrestler to be able to compete at the highest level during a wrestling match. Depending upon the duration and the intensity of the activity, the contributions of each system will be different. The energy systems used in wrestling are: Phosphagen (ATP-PC, Adenosine Triphosphate-Phosphocreatine), Fast Glycogen (Lactic Acid), Fast Glycogen & O2 (Lactic Acid & Aerobic), and O2 (Aerobic). Wrestling is an intense short burst explosive sport using predominately anaerobic energy sources. 90% of the energy system used is thought to be from the Lactic Acid system. That is why we are using interval training extensively in our training program. Wrestling is a mixed sport were all energy systems are used in training and competition. Wrestlers need endurance maybe not the same endurance as a distance runner, but they still need endurance. A well developed aerobic system will allow for some recovery of the lactic acid system following a flurry or a break in the action. Wrestling is such a grueling and demanding sport, the competition and training phases are very different.

#### WEEK 1

MONDAY	TUES	WEDNESDAY	THURSDAY	FRIDAY	SAT
MORNINGS			,		
33 min. run	33 min.	33 min. run or 5	Fartlek	33 min. run	Run on
or 5 miles	Indian run	miles		or 5 miles	own 3-5
	<u> </u>		:		miles
Jog n sprints	20 v-b	Jog n sprints 20	20 v-b court	Jog n	
20 @ 30-	court	@ 30-40M jog	sprints X 2	sprints 20	
40M jog turn	sprints X 2	turn around X 2	w/ 3 min. rest	@ 30-40M	
around X 2	w/ 3 min.	w/ 3 min. rest		jog turn	·
w/3 min. rest	rest	·		around X 2	
* .				w/ 3 min.	
				rest	
40's PTs	40's PTs	40's PTs	40's PTs	40's PTs	
Rope climbs	Rope	Rope climbs X	Rope climbs	Rope	. ]
X 5	climbs X 5	5	X 5	climbs X 5	
5 min. jump	5 min.	5 min. jump	5 min. jump	5 min.	. [
rope	jump rope	rope	rope	jump rope	<u> </u>
AFTER				2.0	
SCHOOL		,			
20 min.	20 min.	20 min.	20 min.	20 min.	20 min.
dynamic	dynamic	dynamic warm-	dynamic	dynamic	dynamic
warm-up	warm-up	up	warm-up	warm-up	warm-up
40's 5 min. to	1-2 min.	40's 5 min. to	1-2 min.	40's 5 min.	1-2 min.
complete	stations	complete .	stations X 3	to complete	stations X3
	X 3 w/ .5	į	w/ .5 rest		w/ .5 rest
Ø. 1	rest	Tachmione	Tachniona	Technique	Technique
Technique	Technique	Technique	Technique	10 min.	Ladder
Interval	10 min.	Ladder down	Interval		down and
wrestling	goes X 3	and back up	wrestling **see below	goes X 3 w/ 5 min.	back up
**see below	w/ 5 min.	5,4,3,2,1 min.	for details**		5,4,3,2,1
for details**	rest	w/ half of top #	for details"	rest	3,4,3,2,1     min. w/
	-	rest			half of top
		-			# rest
			· ·		# rest

#### Interval wrestling- 2 X's week

10 X's 2 minute goes live with 1 minutes rest

10 X's 1 minute goes live with 45 seconds rest

10 X's (both guys = 20) situational goes 30 second with 15 seconds rest

40's PTs- every morning

Turkish get-ups, push-ups, sit-ups, jumping jacks, and burpies

40's PPD's+- after school

Pull-ups, dips, push-ups, and Turkish get-ups

#### WEEK 2

WEEK 2	<del></del>	<del></del>	*		
MONDAY	TUES	WEDNESDAY	THURSDAY	FRIDAY	SAT
MORNINGS	<del></del>				
33 min. run or 5 miles	33 min. Indian run	33 min. run or 5 miles	MATCH DAY *** DO as needed to make	33 min. run or 5 miles	TOURNY DAY ***make weight!
	<u> </u>		weight!		
Jog n sprints 20 @ 30- 40M jog turn around X 2 w/ 3 min. rest	20 v-b court sprints X 2 w/ 3 min. rest	Jog n sprints 20 @ 30-40M jog turn around X 2 w/ 3 min. rest		Jog n sprints 20 @ 30-40M jog turn around X 2 w/ 3 min.	
40's	40's	40's		rest	
Rope climbs	Rope			40's	-
X 5	climbs X 5	Rope climbs X 5		Rope	
5 min. jump	5 min.	5 min. jump		climbs X 5 5 min.	
rope	jump rope	rope			
AFTER SCHOOL		2000		jump rope	
20 min.	20 min.	20 min.	MATCH	20 min.	TOURNY
dynamic	dynamic	dynamic warm-	DAY	dynamic	DAY
warm-up	warm-up	up		warm-up	***make weight!
40's 5 min. to	1-2 min.	40's 5 min. to		1-2 min.	Weight:
complete	stations	complete		stations	
	X 3 w/ .5	,		X 3 w/ .5	
Technique	rest Technique	Tach	<u>'</u>	rest	
Technique Interval		Technique	- ·	Technique	
wrestling	10 min. goes X 3	Ladder down		Ladder	
**see below	w/5 min.	and back up 5,4,3,2,1 min.		down and	
for details**	rest	w/ half of top #		back up	. [
101 40,44115.		rest		5,4,3,2,1	
		1001		min. w/ half of top	
				# rest	
		<u></u>	· · · · · · · · · · · · · · · · · · ·	IT ICSL	



## Growth Development & Weight Loss & Control Corey Christenson

Question: What are the growth and development issues that impact your players in your sport and at your level of coaching? Identify the critical issues and develop a strategy or strategies for addressing them.

While identifying critical issues in the youth and high school wrestling world today, I chose two topics to address. I put them into order on how I see the issues affect my immediate sport and level's I am involved with.

Issue 1: Parents start their kids wrestling too early. Wrestling is a combative sport and also a late specialization sport. According to Peak Height Velocity (PHV), the athlete is most influenced around 12 to 14 years of age (Balyi's). Perhaps sticking to the steps of PHV, coaches may be able to coach more skilled athletes if they have the knowledge and skill development sometimes missed in the early years of training. For example, a coach may show a move to an athlete that is poor technique which will get cheap win/s at that level. The move in the athlete's later stages of competition will not work against a wrestler who has developed correct techniques and skills.

The Five S's (stamina, strength, speed, skill, and suppleness training) of training and conditioning could be enhanced with this approach. This may allow the athletes to achieve their potential no matter what level (skill or age) they may be. By children starting so early they have a tendency to get burned out early from lack of fun and short comings in their athletic abilities. This is a direct result from practices not being fun, too long, and the concentration of the coach/parent is not on the skill and development. The practices are centered on the competitive aspect for wins and losses and getting in as many matches as possible. According to the American Sport Education Program (ASEP) philosophy, athletes are first and winning is second. Parents typically make the initial decision to enroll their children (Howard & Mudgrigal 1990), whereas their children's continued participation seems to enhance parents' social and psychological involvement with the sport (Hasbrook, 1986; Snyder & Purdy, 1982). Like many sports, parents try to live wrestling through their kids to extend there dream.

Strategies for fixing these problems are: 1) Encourage parents to wait until the kids are at least 10 years or older before starting. This will help allow coaches and athletes to focus on what is needed to be done rather than being a babysitter and entertainment center. 2) The youth, jr. high, and high school program need to be all on the same philosophy. Regardless if the athlete is 5 or 16 years old they need to have fun, be in a positive environment, and have success early and often so they stay with the program. Make it so the athletes want to do it! 3) "Keep it simple stupid," (K.I.S.S.) If the coaches keep it simple for the beginners and teach them at the level they are at, then the athletes could perhaps encounter more success. 4) Make sure the programs and coaches communicate to parents and athletes the importance of transition of multiple sports (Balyi's Stage 2 PHV). This will help the athletes acquire the general overall sports skills by participating in multiple sports activities. 5) Make sure the athlete is ready mentally, emotionally, and physically. The wrestler needs to have the desire to do it rather than

be forced to do it. This will help the athlete accept the 3 D's (dedication, determination, and discipline).

Issue 2: Weight loss and weight control. Wrestling has been pegged as an unhealthy sport due to poor weight loss habits. When wrestlers submit themselves to unhealthy weight loss situations such as skipping meals or dehydrating them selves, we see them get sick, warn down, show weakness, and fatigue. No matter what sport, athletes need to be hydrated at all times. Growth spurts are going to happen during the season for some of the athletes. This is going to make maintaining weight hard due to growth and development of the body (Balyi's Stage 3 PHV). Boys and girls all mature at different ages and grades (US swimming gender and growth). If the wrestler is unhealthy mentally, physically, or emotionally, they have a tendency of not having fun, want the season to end, and may not return the next year.

Strategies for fixing these problems are: 1) Coaches need to educate the athletes and parents of the safe strategies to perform proper weight loss. Coaches should hand out a manual of their wrestling program philosophy on what is expected from the athletes and parents. In this handout there should be educating material to guide the parents and wrestlers to proper weight control. Hydration education can be found at www.ihsa.org. 2) Keep the parents informed what weight class the athlete is trying to compete at. Remind the parents and wrestler/s that there are 14 different weight classes ranging from 103 - 285 pounds. 3) Keep a daily log of weigh-in and weigh-out weights to ensure no drastic weight problems. 4) Follow the weight control policy governed by National Rules and regulations of the Illinois High School Association. 5) Keep an eye on the athletes psychological, physiological, and emotional performances. 6) Nothing can be done about growth spurts except educate the parents and athletes of the effects it is going to have on them and their bodies during the season.



What types of foods should your athletes be consuming the night before an event? (Provide rationale)

I picked a 197 pound division I varsity wrestler. This person really likes to eat about anything. Dislikes are broccoli, asparagus, and basically green vegetables. Likes are steak, pastas, and breakfast foods.

All wrestlers must make weight one hour before the actual meet starts. This presents a problem for meals the night before a competition. We encourage all of our wrestlers to get a good meal in the night before competition. There is a difference between a good meal and a heavy meal. Having a good meal doesn't always mean that you are going to get to eat what you want.

#### General thoughts on Eating for wrestling

Individualize your meal plan. Eat foods you like, are accustomed to and are foods that are good for you.

Plan ahead and carry food with you if need be.

Carbohydrates empty the stomach more quickly than proteins and fat.

Energy from sports drinks becomes available within minutes of consumption.

Nothing fatty for 10 hours before a match or you will feel sluggish. Do not cut liquids any sooner than 18 hours before the weigh in. Do it for only 1 workout

To restore muscle energy after competition, eat and drink within 30 min. following your competition.

Focus on natural food. – limit gravies, fried foods, rich sauces and white breads.

Have quick energy meals, 30 minutes before completion – bagel, bananas, bread, Gatorade, potato, raisins.

Your pre-competition meals need to provide your fuel, energy and hydration to achieve your optimum performance.

Nothing fatty for 10 hours before a match or you will feel sluggish.

Avoid cakes, cookies, candy, ice cream, fried foods and soda. They will hurt your performance.

#### Night before Meal

I would make this a very simple meal of about 2/3 carbs and 1/3 protein consisting of the following:

Chicken caesura salad

Spaghetti with Marina sauce

Water to drink

Bagel sandwich with Chicken breast

Bowl of vegetable and rice soup

Water to drink

Sub sandwich on wheat bread

Sports drink to drink6 ounces of steak with a side of spaghetti and marinara sauce.

Water to drink Small portions are the key to making weight.

#### What types of food should athletes be consuming the night before an event?

The night before an event the wrestlers/athletes should eat 2/3 carbohydrates and 1/3 protein. The night before an event for my wrestlers should be light in calories but high in carbohydrates and filling.

#### Foods to consume:

- 1. Rice with water or milk or Spaghetti w/ marinara
- 2. Rice cakes
- 3. Yogurt
- 4. Granola / bar/s
- 5. Chicken Cesar Salad
- 6. Water or Sports Drink

#### Glycemic Index plays a role in wrestlers potentially how?

Wrestlers have to be able to recover quickly during the day of a tournament or multiple dual meet days. The way to do this is by replacing glycogen. A high glycemic index will replenish this much quicker and easier. Being able to consume carbohydrates as simple sugars for quick energy is what we are looking for. If the athlete is having low glycemic index problems like hypoglycemia then he will need to consume high forms of carbohydrates minutes before competition in preferably liquid form. Orange or apple juice, sports drinks, raisins, and fruit are all quickies to get what you need just prior to a match or workout within 15 minutes of the activity. The most important thing is to replenish the liquid or fluid in which the athlete may have lost during the exercise from sweating. Sports drink, fruit juices, and water will do this and also fruits or foods with high water content such as watermelon, grapes, celery, oranges, etc.

Plan an optimal "night before the event meal, pre event meal and post event snack for your athlete. What glycemic index foods did I include?

Night before the Event Meal: 2/3 carbohydrates 1/3 protein

- Spaghetti and marinara sauce
- Hot vegetable soup with meat
- Chicken Cesar salad
- Water to drink or sports drink
- Pasta, breads and bagels, rice, baked potatoes, cereals, along with fruits and vegetables are all great examples of foods are complex carbohydrates that can replenish glycogen stores.
- Bagel sandwich with Chicken breast
- Bowl of vegetable and rice soup
- Water to drink
- Sub sandwich on wheat bread
- Sports drink to drink 6 ounces of steak with a side of spaghetti and marinara sauce.

- Water to drink
- Small portions are the key to making weight.

Pre Event Meal: Heavy Carbohydrates and stick to familiar foods

-Bagel, Pancakes, Waffles, French toast, Hash Browns, Orange or Apple Juice. The athlete could eat a sports gel, fruit smoothie, granola bar or dried cereal, or yogurt. (Stop eating before your full; you want to wrestle hungry).

Post Event Snack: Eat/Drink immediately following your match/sprint within 15 minutes of exercise to replete muscle and liver glycogen stores. It is important for the athletes to know that when they do not want it is the most important time to get it in the body. This is to ensure you are ready to go the next day. The body needs more carbohydrates than proteins to recover. It is important that the athletes/wrestlers do not consume huge quantities, because it will result in unwanted weight gain.

- Carbohydrates-Bagel with Jelly, Fruit, Pretzels, Granola Bar, Cliff Bar, Sports Drink, Sweetened Cereal, and Liquid Gel.

#### Glycemic Index Food Inclusion/Explanation:

A wrestler's goal during a tournament is to replace glycogen stores quickly for a surplus of energy in order to rebound quickly for their next match. This is accomplished more readily with high glycemic index foods. Therefore, consuming carbohydrates in the form of simple sugars is for "quick energy". If the athlete is hyperglycemic, then he should consume some immediately after the match and then just prior to the match load again with a liquid gel.

Examples of food and beverages in this category are orange or apple juice, sports drinks and fruits such as bananas and raisins. These should be consumed within fifteen minutes of the conclusion of a match. Of course, the first priority post-match should always be to replenish fluid lost from sweating. Water, sports drinks and fruit juices can accomplish this, as well as foods with higher water content such as watermelon and grapes.

#### General thoughts on Eating for wrestling

- Individualize your meal plan. Eat foods you like, are accustomed to and are foods that are good for you.
- Plan ahead and carry food with you if need be.
- Carbohydrates empty the stomach more quickly than proteins and fat.
- Energy from sports drinks becomes available within minutes of consumption.
- Nothing fatty for 10 hours before a match or you will feel sluggish. Do not cut liquids any sooner than 18 hours before the weigh in. Do it for only 1 workout
- To restore muscle energy after competition, eat and drink within 30 min. following your competition.
- Focus on natural food. limit gravies, fried foods, rich sauces and white breads.
- Have quick energy meals, 30 minutes before completion bagel, bananas, bread, Gatorade, potato, raisins or liquid gel just prior if hyperglycemic.

- Your pre-competition meals need to provide your fuel, energy and hydration to achieve your optimum performance.
- Nothing fatty for 10 hours before a match or you will feel sluggish.
- Avoid cakes, cookies, candy, ice cream, fried foods and soda. They will hurt your performance.

#### **RESTAURANT MEALS EXAMPLES**

Corey Christenson

Restaurant #1Fazoli's		· ·	· .
Recommended Meal			
Small Spaghetti with Marinara sauce Water to drink	•		•
Meal Nutrient Analysis		. •	

Total kcal: 450

Total grams fat: 2.5g

Total grams saturated fat: 0

Total milligrams sodium: 770mg

Total grams of fiber: 7g

Rationale (evaluate the pros and cons of this meal):

We believe this to be a good meal for the night before a wrestling competition. Wrestlers are not only concerned about having energy for the next day's competition; they are also concerned with making weight the following day. This meal will give them plenty of carbohydrates to build glycogen stores to have peak performance the following day. Some of our athletes are going to be in a situation where they will not be able to go out to eat; we will go to the grocery store and purchase healthy snacks for those athletes. At this point in the week wrestlers are concerned about how much food weighs as well as the energy it will provide. In this case the wrestlers will have to take this into consideration: wrestlers have to be able to recover quickly during the day of a tournament or multiple dual meet days. The way to do this is by replacing glycogen. A high glycemic index will replenish this much quicker and easier. Being able to consume carbohydrates as simple sugars for quick energy is what we are looking for. If the athlete is having low glycemic index problems like hypoglycemia then he will need to consume high forms of carbohydrates minutes before competition in preferably liquid form. Orange or apple juice, sports drinks, liquid form gels, raisins, and fruit are all quickies to get what you need just prior to a match or workout within 15 minutes of the activity. The most important thing is to replenish the liquid or fluid in which the athlete may have lost during the exercise from sweating. Sports drink, fruit juices, and water will do this and also fruits or foods with high water content such as watermelon, grapes, celery, oranges, etc (Stop eating before your full; you want to wrestle hungry).

The con to this meal would be the availability of bread sticks. As many breadsticks as you want are available, this would need to be limited to one or two at the most.

Restaurant #2 \_Bob Evans restaurant\_\_\_\_

Recommended Meal

Blueberry Pancakes Water to drink

Total kcal: 343

Total grams fat: 10g

Total grams saturated fat: 2g

Total milligrams sodium: 792 mg

Total grams of fiber: 29

Rationale: (evaluate the pros and cons of this meal):

Again, this is a very light meal that will provide energy for use the following day. There are plenty of carbohydrates to replenish glycogen stores to provide energy for the following day. The biggest con of most restaurants is the beverages that are available to the patrons. We recommend to our athletes that they drink water in the restaurant and sip (due to weight control) on a sports drink later in the evening. The carbonated beverages that are available in most restaurants tend to inhibit performance.

Hydration strategies you would like your players to keep in mind.

We remind our athletes of the following hydration practices constantly.

- Drink with every meal. Preferably water, sports drinks or juices
- Consume Gatorade/Power Aid/Sport Drink after every workout.
- Drink when you wake up. Drink 20 ounces within one hour of waking up.

All athletes need to keep their bodies hydrated. Drinking enough fluids is one of the most overlooked requirements of physical health. By the time you are thirsty, it is too late you are already dehydrated. To help ensure the proper state of hydration, it is recommended that you drink at least 16 oz of fluid before sleeping on the evening before exercise and another 16 oz first thing in the morning. Getting wrestlers to drink enough water is sometimes a challenge. We try to frequently remind them that that is not weight, fluids must be consumed to perform at a high level.

Weigh-in/weigh-out after every exercise, practice, workout, and competition and replace/drink enough fluids to make up any loss in weight. With wrestling sometimes this can be a challenge. Drink 24 ounces of fluid for every pound you lose during exercise. Make sure your weight returns to baseline, make sure your urine returns to normal, and you have quenched your thirst. All these rules apply to the wrestlers before and after competition as well and in between matches.



#### Carbohydrate Needs Worksheet

#### Corey Christenson

Assume both of the Athletes you selected are	in general training.	Obtain their body	weights
Respond to the following:	•		•

Athlete #1 weight125 grams/kg standard usedg/lbs
Recommended Total Carbohydrate needs287.5-375 g/lbs
Athlete #2 weight158 grams/kg standard usedg/lbs
Recommended Total Carbohydrate needs363.4-474 g/lbs
Athlete #3 weight197 grams/kg standard usedg/lbs
Recommended Total Carbohydrate needs453.1-591 g/lbs

Now assume these athletes are engaged in endurance training. Calculate their carbohydrate needs for this situation.

Athlete #1 weight125 grams/kg standard usedg/lbs	
Recommended Total Carbohydrate needs375-562.5 g/lbs	
Athlete #2 weight158 grams/kg standard usedg/lbs	
Recommended Total Carbohydrate needs474-711 g/lbs	
Athlete #3 weight197 grams/kg standard usedg/lbs	
Recommended Total Carbohydrate needs 591-886 5 g/lbs	

#### Carbohydrate Levels of Foods Worksheet

Athlete of choice total carbohydrate grams needed 125 lbs287.5-375 g/lbs

Meal/Snack	Food Planned	Serving Size Planned	Grams
Carbohydrates	<u> </u>	18.25 - 1.15 - 18.	· · · · · · · · · · · · · · · · · · ·
Breakfast	1 plane bagle	2 oz	38
	Yogurt, fruit	8 oz	42
	Orange juice	8 oz	27
Lunch	PBJ sandwich (goobers)	3 tbl spoons	24
	Whole wheat bread	2 slices	32
· · · · · · · · · · · · · · · · · · ·	pretzels	1 handful	22
<u> </u>	Banana	1 smali	15
Snack before practice	Sports drink	16 oz	28
Snack after practice	Sports gel	1 oz	28
Dinner	Pasta	2 cups	60
	Green beans	1.5 cups	15
	Milk (Whole)-	16 oz	22
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TOTAL CHO PLANNED \_\_\_\_\_353 g/CHO\_\_\_

endurance training level. W	drate grams difference betwee hat is the gram difference?	en that athlete's general training level and187.5 g/dif
List some foods and amount training.	s that might be consumed to r	make up for that difference during endurance
Food	Serving	grams CHO
Granola, low-fat	1 cup	82
Baked potato	4 inch long	20
Sports drink	8 oz	14
Yogurt, fruit	8 oz	42
raisins	.25 cup	31
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•		Total 189 g/CHO

Explain how an athlete would engage in carbohydrate loading (include time frame, change in the diet and training schedule). Include a statement as to the usefulness of this practice in your sport with rationale.

Pre-exercise meal of carbohydrate will elevate blood glucose and serve as an additional fuel substrate during exercise for muscles.

- 1) Carbohydrate loading is over a seven-day period loading up to competition the athlete depletes muscle glycogen stores through exhaustion exercise and simultaneously decrease carbohydrate intake, so that when large amounts of carbohydrate is consumed the muscles can supersaturated with glycogen. This is to prevent fatigue associated with glycogen depletion. The downside is feeling of stiffness and heaviness in muscles, which is uncomfortable for athletes and potentially impairs performance in shortterm events.
- The better way of achieving these results is to have athletes eat a little more carbohydrates as part of every meal in the three-days leading up to competition. The needs of decrease exercise during the taper period because the rest will encourage glycogen resynthesis.

Since wrestling is so different in the aspect of weigh-ins, if we are able to carbohydrate load we would want to do the three-day prior to competition of an all day tournament which would have multiple matches. We would want to add a little more carbohydrates with every meal to increase the amount. This would be done

to help with the multiple match scenarios that we face over the period of a tournament. This would be good to do, but the downside of it is we would have to probably give up food from another food group/area. This could be done, but we would have to look at each individual and figure out what area they would be able to give up.