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Project 3
Recovery Nutrition

1.

The development of an educational piece that outlines the case for good recovery nutrition and hydration and the impact these can have on performance.

You want to be able to convey the importance of recovery to your athletes and their parents, particularly the roles proper nutrition and nutritional timing have on the body's ability to recovery. Take the information presented in this unit and create an 'educational piece' that you can hand out to your team, athletes, parents, etc that explains 'nutrition for recovery,' why it is important, and what makes up a good post-workout snack or meal. This document should not be more than 2 sides of a paper and should be put together in a professional manner – something that you would be proud of and comfortable handing out with your team's logo on it, for example. The information should be scientifically based, but presented in a way that the reader will understand it. Don't be afraid to spice it up with pictures and/ or be creative in other ways (e.g. make a tri-fold pamphlet or find another way to present the information).

2.

The development of 6 appropriate after-practice or after-competition snacks that meet the recommendations set forth in the resources you've been provided.

The literature presents some guidelines as to what a post-workout meal or snack should look like. Based on these recommendations, and the information you provide in your educational document, come up with six (6) examples of recovery snacks that are practical and realistic for the sport you work with. Athletes are more likely to take what you give them than they are to come up with options on their own, so present snacks that combine the appropriate amounts of carbohydrates, protein, fluids, and other nutrients (?). Also think about foods your athletes are likely to eat and make the recommendations you provide realistic.

So everyone is operating from the same page, let's set some standards for what the recovery meal should look like:

- 10 grams of protein
- 100-150 grams of carbohydrate
- Moderately high to high glycemic carbohydrates

Make these into 'meal cards'. Spell out the food, serving size and nutritional information (amount of carbohydrate and protein). An example is provided below for reference.

RECOVERY NUTRITION



Post-Training Recovery

Recovery nutrition should occur within approximately 30 minutes after a workout or competition.

Recovery Nutrition should consist of 0.5-0.7 g of High Glycemic Carbohydrates for every 1 pound of body weight. For example a 150 pound athlete should consume 75 grams of Carbohydrates. Carbohydrates speed up the replenishment of glycogen stores in the body.

In addition to carbs, the body needs protein for recovery. A basic unit of measure would consist of 10 grams of protein consumption post workout. For more intense activities, protein consumption can increase to 1 gram per pound of body weight. For example, a 150 pound athlete would consume 150 grams of protein after a workout or competition. Protein helps repair muscle damage that occurs during training.

Recovery nutrition is considered one of the most important aspects to training. Eating the proper foods and consuming the right beverages can help increase performance and training results. Post training nutritional goals are to provide adequate fluids, electrolytes, energy, and carbohydrates to replace muscle glycogen and ensure rapid recovery. Protein helps recovery as it repairs muscle damage.

Recovery Nutrition Make Up:

- **Carbohydrates**
- **Protein**
- **Fluids**

These should be consumed in the form of *High Glycemic Foods* with *enough calories to make up for energy expenditures*. Quick access can be found in **Chocolate Milk, Protein Bars, and Sports Drinks (Gatorade)**.





Training Supplements

Many supplements are targeted at athletes who train. However, these supplements are not always needed. Most if not all nutrients can be gained eating a balanced diet following the recommended nutritional guidelines. If supplements are desired, use a basic supplement such as whey protein to aid recovery. Even protein bars or sports shakes can help increase protein consumption. Always be cautious and understand the composition of any type of supplement. Supplements with various ingredients often include banned and unsafe substances and are simply not needed.

Post-Workout Meals

Example:

100 – 150 g Carbs (0.5-0.7 g/1 lb body weight)

10 g Protein

Sufficient water in addition to other fluids with Carbs

- 2 cups Chocolate Milk + 1 cup Applesauce
- 1 cup Trail Mix + 1 Banana + 1 cup Apple Juice
- 3 Graham Crackers + 1 cup Special K Cereal + 16 oz Grape Juice
- 8 oz Yogurt + 20 oz Cola
- Peanut Butter and Jelly Sandwich + 2 cups Orange Juice
- 1 cup Raisins + 1 oz Mozzarella Cheese + 8 oz cranberry Juice



Hydration

Adding, maintaining, and replenishing the amount of fluids in the body is integral to performance and recovery. Water and sports drinks are two of the first beverages that come to mind. The timing of each beverage is important.

Pre workout/competition:
Consume 10-20 oz of fluid 4 hours prior to maintain hydration. This should include 100 mg of sodium, so a sports drink would be sufficient.

During workout/competition:
Consume enough fluids that equal individual fluid loss. This is a good time for water or a sports drink.

After workout/competition:
Consume 150% of fluid for individual losses. This can be measured by weight loss after activity. 16-24 oz of water or sports drink per pound lost should be consumed. A sports drink also contains carbohydrates needed for rapid recovery. Activities lasting under 1 hour requires water intake and over 1 hour requires a sports drink.



Post-Workout Meals:

Food Choice	Carbohydrates (grams)	Protein (grams)
Low Fat Chocolate Milk (2 Cups)	52.2 g	16.2 g
Applesauce (1 cup)	50.77 g	0.46 g
<i>Total</i>	<i>102.97 g CHO</i>	<i>16.66 g PRO</i>
Trail Mix (1 Cup)	91.84 g	8.82 g
Banana (1)	26.95 g	1.28 g
Apple Juice (1 cup)	28.97 g	0.15 g
<i>Total</i>	<i>137.76 g CHO</i>	<i>10.25 g PRO</i>
Cinnamon Graham Crackers (½ cup/3 crackers)	32.25 g	2.9 g
Special K Cereal (1 cup)	22.01 g	6.98 g
Grape Juice (16 oz)	78.76 g	0.0 g
<i>Total</i>	<i>133.02 g CHO</i>	<i>9.88 g PRO</i>
Seedless Raisins (1 cup)	114.81 g	4.45 g
Whole Milk Mozzarella Cheese (1 oz)	0.62 g	6.29 g
Cranberry Juice (8 oz)	34.21 g	0.0 g
<i>Total</i>	<i>149.64 g CHO</i>	<i>10.74 g PRO</i>
Low Fat Fruit Yogurt (8 oz)	43.24 g	10 g
Cola (20 oz)	58.95 g	0.43 g
<i>Total</i>	<i>102.19 g CHO</i>	<i>10.43 g PRO</i>
White Bread (2 slices)	23.94 g	3.82 g
Peanut Butter (2 tbsp)	6.26 g	8.02 g
Jelly (2 tbsp)	27.54 g	0.14 g
Orange Juice (2 cups)	51.58 g	3.48 g
<i>Total</i>	<i>109.32 g CHO</i>	<i>15.46 g PRO</i>