



FOR YOUTH DEVELOPMENT
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

Lesson 3: Pre Workout Nutrition

1. Introduce the goal of pre workout nutrition

When we eat carbohydrates our body breaks them down into a sugar called glucose. Glucose is the main source of fuel for our cells. When our bodies don't need to use glucose for energy, it connects glucose molecules to form glycogen. Glycogen is stored in the liver and muscles to be used as an energy source when we are exercising. When glycogen is depleted athletes tend to "hit the wall" and do not have enough energy to perform at optimal levels. Goal of a pre workout meal is to maximize muscle and liver glycogen stores to fuel the workout. Ask the questions "have you ever workout out on an empty stomach?-how did it feel? Have you ever "hit the wall"? What does that feel like?

2. Discuss when pre workout meals should be eaten.

Pre workout meals should be eaten 1-2 hours before exercise. Lighter snacks can be eaten 30-45 minutes before exercise. Eating too soon before a workout or sporting even can cause cramps and stomach problems.

3. Discuss what the meal should be made up of

A pre workout meal or snack should be higher in carbohydrates, moderate to low in protein, and low in fat. Carbohydrates are the optimal fuel for a workout because they are generally easily and quickly digested. Carbohydrates consumed should be from whole grains. They should not be processed like white bread. Other sources of carbohydrates include fruit such as apples, berries, and bananas as well as vegetables such as broccoli, peas, and sweet potatoes. These foods are also full of other nutrients that can help fuel a workout.

Explain to the athletes that foods high in fats and protein digest slower than carbohydrates. Fat can also cause cramps, which would inhibit athletic performance. Also inform the participants that protein sources should be lean such as chicken and fish; fat sources should be from healthy fats (unsaturated) such as nuts and fish, and low in unhealthy fats (saturated and trans) found in baked goods, fast food, and red meats. Ask can anyone think of foods that would be good to eat before a workout? What about foods that we should try to avoid before a workout?

4. Distribute Handouts

While distributing the "**Pre workout recipes and meal ideas** handouts summarize the lesson. Key points should include that pre workout meals are intended to fuel workouts, meals should be higher in healthy carbohydrates and lower in protein and fats. Ask the athletes if they can name some foods or meals that would be good to have before a workout. Ask if there are any questions regarding the lesson or the provided handout.



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Lesson 3: Pre Workout Nutrition

-Handout-

Name: _____

Pre Workout Recipes and Meal Ideas

You have just learned about pre workout nutrition, when pre workout food should be eaten, and what type of foods should be eaten. Remember pre workout meals or snacks should be higher in carbohydrates, moderate to low in protein, and low in fat.

Carbohydrates should come from whole grains, beans, or vegetables. Protein sources should be from natural whole foods not supplements, and fats should be in the form of healthy fats (unsaturated) and low in bad fats (saturated).

Little Time

Natural peanut butter on whole wheat bread with a glass of milk

Turkey on whole wheat bread with lettuce and tomato

Oatmeal with fruit

Medium Time

Peanut Butter Smoothie

½ cup milk

1 Tbsp unsweetened cocoa powder

2 Tbsp natural smooth peanut butter

1 banana

2/3 cup crushed ice

Add in ingredients into blender and blend until smooth.

Fruit and Yogurt Smoothie

6 oz (¾ cup) plain Green yogurt

1 cup fresh or frozen fruit (can be any fruit)

2/3 cup crushed ice

½ cup milk

1 Tbsp ground flaxseed (optional)

Add ingredients to blender and blend until smooth.



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Long Time

Grilled Lemon Chicken (serves 4)

Ingredients

1/3 cup lemon juice

1/4 cup olive oil

1 tablespoon Dijon mustard

2 cloves garlic, finely chopped

1/4 teaspoon ground black pepper

4 skinless, boneless chicken breast halves

Directions

1. In a bowl, mix the lemon juice, olive oil, Dijon mustard, garlic, red bell pepper, and pepper. Set aside 1/4 cup of the mixture to use for basting. Place chicken in the bowl, and marinate at least 20 minutes in the refrigerator.
2. Preheat grill for high heat.
3. Lightly oil grill grate. Drain and discard marinade from the bowl, and place chicken on the grill. Cook 6 to 8 minutes on each side, until juices run clear, basting occasionally with the reserved marinade.

*Can also bake the chicken for about 30 min at 350F

Can you name some other snacks or foods that would be good to eat before a workout? _____

Can you name some snacks or foods that wouldn't be good to eat before a workout? _____



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Lesson 4: Post Workout Nutrition

1. Introduce post workout nutrition

Post workout meals and snacks differ from pre workout meals and snacks. Post workout meals should be eating 30-60 minutes after exercise. It is important to remind the athletes that they should be having meals consisting of whole foods not meal replacement shakes or other protein supplements.

2. Discuss the goal of post workout nutrition

The goal of eating a post workout meal is to replenish the glycogen stores in your body that were depleted or used up during your workout or sporting event. You also want to kick start recovery and promote muscle growth. Another goal is to rehydrate your body so it is important to continue drinking water after you workout. Dehydration can limit the amount of glycogen stored and inhibit recovery.

3. Discuss what the meal should be made up of

You should consume carbohydrates and proteins at a 2:1 ratio. So if you are having 15 grams of protein you should have about 30 grams of carbohydrates. Again it is important to get the carbohydrates from whole grains, fruits, vegetables, nuts, and/or legumes. The protein should also come from these sources as well as lean meats and/or dairy such as milk or Greek yogurt. If you are lactose intolerant, Lactaid can be substituted. You should consume about 20 grams of protein after a workout depending on your size and the type of workout performed.

4. What if I am in a rush?

If you are in a rush drinking a large glass of milk (preferably 1% or higher) is a great way to get the protein, fat, and carbohydrates needed to help our bodies recover from a workout. Again you can also substitute Lactaid. It would also be ideal to pack a handful of non-sweetened trail mix. Eating junk food, including fast food, post workout can lead to loss of energy and even cause a major drop in blood sugar levels. These types of foods are also unhealthy for many other reasons.

5. Distribute Handouts

Provide athletes with the “**post workout recipes and meal ideas**” handout. Emphasize that they can still eat a healthy post workout meal or snack even if they are in a rush. Ask the athletes if they can name any foods or meals that would be good to consume post workout. Also ask participants if they have any questions.



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Lesson 4: Post Workout Nutrition

-Handout-

Name: _____

Post Workout Recipes and Meal Ideas

You have just learned about post workout nutrition, including when to have your post workout meal, and what foods to eat. Remember you should consume carbohydrates and proteins at a 2:1 ratio; so if you have having 15 grams of protein you should have about 30 grams of carbohydrates. You should consume about 20 grams of protein after a workout depending on your size and the type of workout performed. It is also very important to drink water after your workout to prevent dehydration.

Little Time

Greek yogurt and fruit
Turkey sandwich on whole wheat with lettuce and tomatoes
Hummus on whole wheat pita

Medium Time

Steak, brown rice, and broccoli

Ingredients: Steak, brown rice, broccoli, pepper, Worcester sauce

Directions: Place steak in broiling pan. Sprinkle with pepper. Lightly coat with Worcester sauce. Broil steak on each side for about 8-10 minutes depending on size of steak. Cook rice and broccoli.

Long Time

Recovery Burger (serves 2)

6 oz ground turkey, divided into two 3 ounce patties
3 Tbsp low sodium Teriyaki Sauce
2 slices fresh pineapple
2 slices red onion
2 100% whole wheat buns
½ jalapeno, sliced thin
2 slices Swiss Cheese



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Directions

1. Grill the turkey burgers basting with the teriyaki sauce as you go. While the burgers cook, grill the pineapple and onion until lightly charred. Put each burger on a bun and layer on onion, pineapple, jalapeno, and cheese; top with more sauce.

*You can also bake the burgers at 350F until fully cooked (about 20-30 min)

Can you name some other snacks or foods that would be good to eat before a workout? _____

Can you name some snacks or foods that wouldn't be good to eat before a workout? _____
