



# RECOVERY NUTRITION

Nutrition recovery should commence within 30 minutes after training or matches. It takes 24 - 48 hours to replace your glycogen stores if they have been completely depleted. Continue eating well-balanced meals throughout the rest of the day for optimal recovery.

## **Do You Implement The 4 R's Of Recovery?**

As an elite tennis player having a recovery nutrition program is vital. After a tennis match or heavy training your body is depleted of glycogen stores, is dehydrated, muscle tissue is broken down and your immune system is vulnerable.

#### **Recovery Nutrition Depends On:**

- Mode of exercise tennis practice/conditioning, weight training, or tennis match.
- Training volume <1 hour, 2 hours, 3 or more
- Training intensity
  - Moderate to high-intensity exercise increases the use of carbohydrates as an energy source.
  - Low-intensity sessions involve a combination of carbohydrates and fats used as the energy source.
- Timing of your next training session if there are less than 8 hours between exercise sessions the importance of recovery food increases.
- The carbohydrate requirements of recovery increase for high volume and/or intensity sessions.

#### The 4 R's of Recovery:

- RE-HYDRATE with fluids and electrolytes.
  - Drink 1.5L of fluid per kilogram of sweat loss.
    - Calculate this value by weighing pre and post-practice.
  - Fluids should contain sodium.
    - Sodium is critical for optimal cellular rehydration, cool, helps regulate your body temperature and flavored stimulates drinking.
- RE-STOCK muscle glycogen (the primary fuel used by muscles for energy production) stored with carbohydrates.
  - Consume 1g of carbohydrates per kg of body weight for high volume and/or intensity exercise. 30+ grams for strength training.
- RE-PLACE your muscle tissue with high-quality protein.
  - Eat 15-25g of protein following training/matches.
- RE-INFORCE your immune system with foods rich in antioxidants.
  - Eat at least 2 servings of fruit and 5 servings of vegetables daily.

The four R's of recovery can be obtained totally or partially by fluids. Fluids include water, sports drink, flavored milk products, and sports recovery drinks. Water and sports drink, need to be consumed with food rich in protein to help obtain the nutritional requirements of recovery. However, low-fat flavored milk, fruit dairy smoothies, and recovery drinks can act independently. These fluids should be cool (60 F, 30 C), non-carbonated, contain sodium, be flavored, and be low in fat.

Nutritional Value of Typical Recovery Drinks					
Type-16 oz (1/2 L)	Carbohydrates	Protein	Fat	Sodium	
Chocolate Milk	46	16	5	360	
Sport Drink	30-40	0	0	110	
Fruit Smoothie	40-60	20	5	155	
Recovery Drink	30	25	3	500	

Low-fat chocolate milk has become a favorite recovery drink for athletes as it has the right combination of carbohydrates and high-quality protein; it is low in fat, it has key electrolytes and it is very inexpensive to buy.

### **Recovery Food Ideas**

To create a proper recovery snack or meal, combine a carbohydrate source from the column on the left and a protein source from the column on the right. This table can provide you with creative options if limited by dietary restrictions, food preferences, or travel to a foreign country where home staples aren't available. Portion size will be determined by training type, volume, and intensity.

Carbohydrate Sources				
Cooked Oatmeal	1  cup = 28  g			
Fruit	1 piece = 27 g			
Blueberries	1 cup = 21 g			
Bread	2 slices = 47 g			
Rice	1 cup = 45 g			
Breakfast Cereal	1 cup = 55 g			
Bagel	1 = 48 g			
Cooked Pasta	¾ cup = 33 g			
Tortillas (6")	2 = 30  g			

Protein Sources	
Whole	1.5 cup = 12 g
Low-fat yoghurt	1 cup = 13 g
Cottage Cheese	¾ cup = 21 g
Eggs	2 = 12 g
Nut Butter cup	3 tbsp = 12 g
Tofu	1⁄2 cup =11 g
Chicken	3  oz = 23  g
Milk	1.5 cup = 12 g
Deli Meat	3  oz = 26  g
Fish	3 oz = 19 g
Beans or Lentils	¾ cup = 30 g

#### **Recovery Protein Pancake Recipe:**

- Ingredients: 1/3 cup oatmeal, half a banana, 2/3 cup egg whites, and cinnamon
- Method:
  - Add ingredients to a blender, mix until well combined.
  - Pour into hot skillet, flip once the bottom has solidified, cook evenly.
  - Top with nut butter, fresh fruit, and syrup.
- Nutritionals: 240 calories, 31 g carbohydrates, 24 g of protein

#### **Recovery Nutrimeal Shake:**

- Ingredients: chocolate or vanilla nutrimeal, 1 cup milk of choice, half a frozen banana, 1 tablespoon peanut butter, 5 ice cubes
- Method: Add all ingredients in a blender, mix until well combined, enjoy
- Nutritionals: 415 calories, 48 g carbohydrates, 21 g of protein

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