

# POTATOES FUEL PERFORMANCE

## FUELING ALL STAGES OF ACTIVITY

All types of sports and stages of activity require adequate fuel for energy and recovery. Potatoes provide the carbohydrate, potassium and energy that strength, team sports or endurance athletes need to perform at their best.

### PRE-WORKOUT

#### Meal 2-4 Hours Before Workout

- Provide a meal with adequate energy to fuel upcoming activity.
- Meal should be high in carbohydrate, moderate in protein, lower in fat and fiber and include 16-20 ounces of fluid.
- Carbohydrate is important for optimal physical and mental performance. Because the body's own stores of carbohydrate are limited and may be depleted – even in a single session of intense and/or prolonged exercise– it's important to replenish them.
- As a key component of muscle, protein is an important nutrient for athletic performance. A medium-size (5.3 ounce) potato has 3 grams of protein.

#### Snack Approximately 30 Minutes Before Workout

- A snack is designed to help top off energy stores for upcoming activity.
- The snack an athlete picks should be high in carbohydrate, low to moderate in protein and contain at least 5-10 ounces of fluid.
- There's a variety of potato snack options to fuel an athlete's body and brain throughout the day – including before workouts. Adequate energy intake supports optimal body functions and it's critical to eat the appropriate number of calories to match energy demands.
- A medium (5.3 ounce) skin-on potato contains 110 calories.

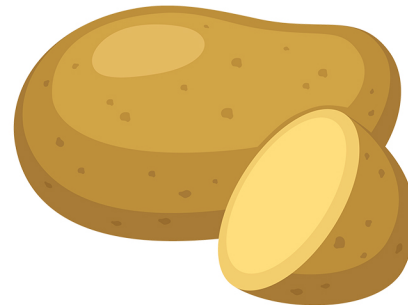
### DURING-WORKOUT

#### Workouts 0-90 Minutes

- Hydrate with 5-10 ounces of water every 15-20 minutes.

#### Workouts 90 Minutes+

- Recommend 30-60 grams of carbohydrate per hour, little to no protein or fat.
- Potatoes can provide carbohydrate to help maintain energy levels during long bouts of exercise.
- Hydrate with 5-10 ounces of water or sports drink every 15-20 minutes.



### POST-WORKOUT

#### "2 Hour Window of Opportunity"

- Recovery consists of 3 R's:
  - **Replenish** – Need carbohydrate to replenish energy stores
  - **Rebuild** – Need protein to start muscle repair process
  - **Rehydrate** – Need to provide the body with fluid and electrolytes

#### 0 – 45 Minutes Post-Workout:

- Goal is to consume a snack of carbohydrate and approximately 20 grams of high-quality protein with fluid.
- A medium (5.3 ounce) skin-on potato contains 26 grams of carbohydrates, 3 grams of protein and can help replenish carbohydrate stores.

#### 45 Minutes – 2 Hours Post-Workout:

- Goal is to consume a more complex meal of carbohydrate, protein, healthy fat and fluid.
- Multiple varieties and forms of potatoes contain carbohydrates. Carbohydrates can help replenish energy stores as a part of a meal with protein, healthy fat and fluid.

Potassium is an important electrolyte that aids in muscle, cardiovascular and nervous system function. A medium skin-on potato (5.3 ounces) has even more potassium than a medium-size banana (620 mg versus 422 mg).

One medium (5.3 ounces) skin-on potato is a good source of vitamin B6 (provides 10% of the daily value). Vitamin B6 plays important roles in carbohydrate and protein metabolism.

Potatoes can be ready to serve in under 30-minutes and are perfect alone or paired with any protein.

1. Thomas T., et al. Position of the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and athletic performance. *Journal of the Academy of Nutrition and Dietetics*. 2016; 116(3):501-528.  
2. Burke LM, Hawley JA, Wong SH, Jeukendrup AE. Carbohydrates for training and competition. *J Sports Sci*. 2011; 29(Suppl 1): S17-27.  
3. U.S. Department of Agriculture, Agriculture Research Service. FoodData Central. <https://fdc.nal.usda.gov/>. Updated March 2019. Accessed October 11, 2019.

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## FUELING ALL STAGES OF ACTIVITY

Potatoes are more energy-packed than any other popular vegetable and can help fuel activity from beginning to end!

SPORT	STRENGTH ATHLETES <small>(e.g. body building, Olympic weight lifting)</small>	TEAM SPORT ATHLETES <small>(e.g. football, baseball, softball, soccer, basketball, swimming)</small>	ENDURANCE ATHLETES <small>(e.g. marathon runners, cyclists, triathletes)</small>
Carbohydrate Needs	3 - 5 g/kg	5 - 7 g/kg	7 - 10 g/kg
Protein Needs	1.6 - 2.0 g/kg	1.4 - 1.7 g/kg	1.2 - 1.4 g/kg
Pre-Workout Goal	Provide carbohydrate and protein to stabilize blood sugar and provide energy for high intensity bouts of activity.	Provide carbohydrate to maximize glycogen stores and provide energy for repeated intense bouts of activity.	Provide carbohydrate to maximize glycogen stores and provide energy for long workout.
Potato Fuel for Pre-Workout	Hash Brown and Egg Nests Potable Egg & Potato Mini Frittatas	Potato Pancakes with Apple Butter Potato Performance Muffins	Potato Poppers with Turmeric Hash Brown Waffles with Tart Cherry Syrup
During-Workout Goal	Typically, no additional carbohydrate required.	After 60-90 minutes of activity, 30-60 grams of carbohydrate/hour needed to maintain energy for activity.	After 60-90 minutes of activity, 30-60 grams of carbohydrate/hour needed to maintain energy for activity.
Potato Fuel for Mid-Workout	Additional nutrition likely not needed.	Portable Potato Cakes Potato Energy Bites	Zesty Mashed Potato Snackers On-the-go Potatoes
Post-Workout Goal	Recovery. Provide protein to start muscle rebuilding process.	Recovery. Provide carbohydrate to replenish energy stored and protein to start muscle building process.	Recovery. Provide carbohydrate to replenish energy stored and protein to start muscle building process.
Potato Fuel for Post-Workout	Roasted Potato Tacos with Eggs Potassium Potato Smoothie Sheet Pan Breakfast Hash	Mashed Potato Muffins Post-Workout Buddha Bowl Strawberry and Cream Smoothie	Performance Stuffed Potato Bowl Power Baked Potato Post-Workout Cheesy Vegan Bowl

The guidance provided in this handout should not be generalized to other populations, skill levels, sport types or training amounts and the individual's nutrition and health goals should always be considered.

Get these recipes and more at [PotatoGoodness.com](https://www.potatogoodness.com)

As a sports nutrition professional working with extremely active individuals, it's important to keep in mind that the nutrient requirements of your athletes may vary from individual to individual. Having individualized fueling and recovery plans in place can ensure your athletes meet their nutrition and health goals.

**Potatoes.**  
Real Food. Real Performance.®