

Fueling for road or foot marches: The basics

Gear packed? Check. Training completed? Check. So, how does your fueling plan for food and drinks stack up? Nutrition is critical for warriors, especially before, during, and after physically and mentally intense training such as road or foot marches. Providing your body with the right amount of fuel at the right time might be the difference between success and failure on your ruck march.

Carbohydrates

Carbs are preferred fuel for your brain and muscles. Focus on simple carbs—which are the fastest and most readily available form of energy—right before and during the ruck march. Fuel your performance with the following carb options.

⚡ Performance boosters (about 25 g carb):

- 18 gummy bears
- 25 jelly beans
- 1 pouch fruit snacks
- ¼ cup (4 Tbsp) raisins
- 3 Tbsp dried cranberries
- 2 squeezable fruit pouches
- 1 sports gel
- 3 sports chews
- 16 fl oz sports drink

Protein

Protein supports muscle growth, recovery, and repair. Although protein is an important part of your daily food plan, it won't offer much energy to support your performance during a ruck march. Skip the beef or turkey jerky on the trail and include protein in your recovery meal instead.

Fluid

Fluid keeps you hydrated. Dehydration negatively affects performance, so start off well hydrated and drink regularly. Use the urine color chart to quickly [check your hydration status](#): Look for pale yellow urine. And adjust how much you drink based on how

much you sweat, your intensity or effort, weather (heat, humidity, altitude, or cold), clothing, equipment, and your opportunities to drink. Keep in mind the longer the march, the higher your risk for dehydration because the times you drink less—or not at all—can really add up. Stay hydrated and fuel your performance with the following options.

⚡ Performance boosters:

- 16 fl oz water bottle
- ½ 1-quart canteen
- 100-oz hydration pack (finish in 4–5 hours)

Electrolytes

Electrolytes are lost in urine and sweat, and replacing them is critical to hydration. These minerals—such as sodium, potassium, calcium, and magnesium—help balance the amount of water in your body. Excess sweat loss on hot and humid days, or when you're wearing heavy equipment or clothing, means you're losing important electrolytes. Consuming balanced meals, nutritious snacks, and sports drinks can help provide enough electrolytes to replace losses. Fuel your performance with the following tips.

⚡ Performance boosters:

- Fuel regularly with whole foods and/or sports foods (gels, chews, bars) during the march and afterwards to replenish electrolytes.
- Don't restrict sodium (salt). Include salty snacks (nuts, pretzels, crackers) or drinks that contain sodium (sports drinks, vegetable or tomato juice) in your nutrition plan.
- Sports drinks are specially formulated for hydration (fluid) and replacement of important nutrients (carbs and electrolytes) in a convenient and portable package. Consume sports drinks when you're active for over 60 minutes and especially when it's hot and humid. **Tip:** Count sports drinks as part of your “carb option” and “fluid option” when planning your nutrition strategy.

Caffeine

Use caffeine strategically. Avoid caffeine 4–6 hours before bedtime the night before a ruck march for optimal rest. However, consuming 200 mg of caffeine 30–60 minutes before an event can enhance performance. Re-dose every 3–4 hours as needed. In general, limit caffeine to 600 mg and no more than 800 mg for sustained operations. Choose sources such as coffee, tea, or caffeinated gum or mints over [energy](#)

[drinks](#) that might contain too much caffeine and other ingredients. Avoid carbonated soft drinks to prevent stomach upset too. Visit the Operation Supplement Safety website at [OPSS.org](https://www.opss.org) for more information on caffeine for performance. Fuel your performance with the following caffeine options.

⚡ Performance boosters:

- 16 fl oz coffee
- 2 pieces of caffeinated gum or mints

Fueling timeline

Be prepared. Pack carb-rich snacks and plenty of fluid for a successful ruck march. Use the timeline below to plan ahead.

| TIME | FUEL & FLUID | EXAMPLE for a 185-lb Warfighter on a 16-mile ruck march |
|---|---|---|
| Night before event  | <ul style="list-style-type: none"> • Eat a power plate that's high in carbs with lean protein and healthy fats. • Drink water, milk, or milk alternatives. | (1800) <ul style="list-style-type: none"> • Grilled chicken breast (5 oz), roasted garlic potato wedges (2 cups), roasted broccoli with olive oil (2 cups), mixed fruit salad (1 cup), and chocolate chip cookies (3 small) • Water |
| 1 hour before boots on the ground  | <ul style="list-style-type: none"> • Eat 1–2 g carb/kg (adjust to your preference). Limit foods high in fiber and fat to avoid stomach upset too. • Drink 16 fl oz water. | (0500) <ul style="list-style-type: none"> • Single-serving cup of oat ring cereal (2), low-fat milk (8 oz), and a medium apple • 16 fl oz water |
| During (every hour)  | <ul style="list-style-type: none"> • Eat 30–60 g carb (at least 1–2 carb options) every hour. If longer than 3 hours, eat up to 90 g carb. • Sip 16–32 fl oz water and/or sports drink every hour. Don't gulp and don't exceed 48 fl oz in an hour. | (0700) <ul style="list-style-type: none"> • 18 gummy bears • 16–32 fl oz water (0800) <ul style="list-style-type: none"> • 2 squeezable fruit pouches • 16 fl oz water and 16 fl oz sports drink (0900) <ul style="list-style-type: none"> • ¼ cup raisins and 2 squeezable fruit pouches • 16 fl oz water and 16 fl oz sports drink |
| After (within 2 hours)  | <ul style="list-style-type: none"> • Eat a carb-rich meal with 15–30 g lean protein and healthy fats. • Drink 16 fl oz water and/or sports drink <i>per lb lost</i> during ruck march. • Rehydrate with electrolytes from food, drinks, or both. | (1100) <ul style="list-style-type: none"> • MRE or peanut butter (2 Tbsp) and jelly (1 Tbsp) on whole-wheat bread (2 slices) and trail mix (½ cup) • 16 fl oz water and/or sports drink per lb lost or drink regularly until urine is pale yellow |

For more information: Visit a Registered Dietitian for personalized recommendations or read HPRC's [in-depth guide](#) to fueling for a ruck march.