

endurance fueling essentials

nutrition reminders

- Fueling for performance is a 24x7 effort to earn your best race, not a reward for each workout.
- Each workout is an opportunity to rehearse and refine what will work for your goal race.
- Proper hydration and fueling is also critical for injury prevention so your body has the nutrients and energy needed to repair from the stresses of training.
- Staying hydrated day in and day out is one of the most important elements to training and racing safely. At a minimum aim to drink at least .5 ounces of water for every pound of body weight. For example, a 150 pound person needs at least 75 ounces of water daily plus at least 15 more ounces per day for every hour of activity.
- Fueling and hydrating should be practiced and calculated for your exact body needs. The formulas included here give you a range to work with and you'll want to make sure that your exact chosen products meet the calorie and hydration needs for your body.
- Remember that your level of racing and training experience will also influence your needs Much more experienced racers may need less fuel is outlined below largely because they are on and off the course in a much shorter timeframe, but this approach will work for most age group athletes.

fueling for training

<p>pre-workout</p>	<p>short runs. Try to have a snack or meal within about 1-1.5 hours of training. For early risers, if you cannot stomach food, try to at least have 4-8g BCAA capsules or a BCAA drink to get some amino acids circulating in your system. Aim for 150 calories which includes 5-10g of protein. Snack ideas include toast and PBFit, Kids RxBar or Greek yogurt.</p> <p>long runs. Before long runs (12+ miles) you'll want to eat a little more, closer to 300-400 calories, at least an hour before you train, so you have time for your food to settle. Practice and test your race day breakfast for stomach tolerance during your long training runs. If you are traveling for your race, make sure this is something you can do when you're on the road. Oatmeal with fruit and 1T of nut butter or half a bagel with 1T of nut butter work well for many. If you plan to have coffee, practice that, and sip on an electrolyte drink until you're ready to start running, so you're staying hydrated too.</p>
<p>intra-workout</p> <p>Pro Tip. Drink and eat on a schedule. Sip your hydration drink from your handheld bottle or backpack every .5-1.0 mile and then</p>	<p>short runs. For runs less than an hour, water or an electrolyte-only (ie Nuun Sport tablet) drinks are fine.</p> <p>hard runs + long runs. Follow the formulas below to estimate your calorie and hydration needs per hour and fuel accordingly. Most people do well with an electrolyte drink made only with dextrose or sucrose and a chew every 10-15 minutes. Example drinks include Skratch, Nuun Endurance or Clif Hydration. More complex sugars have a higher likelihood of causing GI distress at race intensity.</p>



<p>have your chews every 1-2 miles. More frequently for marathoners, less frequently for half marathoners.</p>	<p>If you use gels, be mindful that you're consuming them with at least 8 ounces of water to digest them properly and that you'll still need an electrolyte sources like salt tablets during your run.</p> <p>Evidence shows that protein during endurance events also helps mitigate muscle fatigue. You can address this by adding 5g of BCAAs to your electrolyte drink or taking BCAA capsules while you run.</p> <p>Finally, if you are planning to use race provided products, ensure that you're practicing with them with timing matched to where aid stations will be and using products at full concentration.</p>
<p>post-workout + recovery</p>	<p>hard runs + long runs.</p> <p>Immediately after your workout is your key repair and refueling window. After hard workouts (i.e intervals or longer than 90 minutes), have a recovery shake with at least 20-30g of protein and 30-45g carbs immediately following the workout. Then still have a balanced meal within 2 hours of completing your run.</p> <p>An easy way to hit these targets for your recovery shake is to have a scoop of whey or pea protein mixed with coconut water, tart cherry juice, electrolyte drink mix or chocolate milk or chocolate almond milk.</p> <p>A balanced meal should include protein, carbs and some fat. For example, you could have a hash with sweet potatoes, two whole eggs and .5c of egg whites with spinach and onion for a post workout meal.</p> <p>To further support recovery, drink 6 ounces of ice cold 100% tart cherry juice or a tart cherry supplement with ice water 30 minutes before bed</p>

how to calculate training fueling*

	Low-end per hour	High-end per hour
Running total calories	Body weight * .9	Body weight * 1.13
Running fluid ounces	Body weight * .1	Body weight * .12

*According to Stacy Sims' calculation formulas