

RUNNING ON RED

Getting the most out of each workout and making performance gains is a lot easier when you recover quickly after exercise. Tart cherry juice is rapidly gaining a following among endurance athletes as an exercise recovery aid.

It's not just what you eat or drink after you exercise that affects your recovery, though. While postworkout refueling is

essential to rehydrate and replenish your muscles, what you do before working out is vital, too. Studies have shown that drinking Montmorency tart cherry juice for multiple days leading up to intense exercise may help aid recovery. Tart cherries contain natural compounds called anthocyanins, which contribute to the fruit's ruby red color and distinctive taste.

Studies have shown that Montmorency tart cherry juice helped aid recovery and reduce strength loss in runners and cyclists who consumed it twice a day in the week leading up to a race, during and after a race. Researchers suggest using tart cherry juice daily for at least a week before an intense event. How much do you need? Most of the studies have provided participants with two 8-ounce servings of tart cherry juice a day. Each serving is equivalent to nearly 100 Montmorency tart cherries.



MEET MATT **FITZGERALD**

Matt Fitzgerald is a certified sports nutritionist, endurance coach. and author. His many books include Racing Weight and The New Rules of Marathon and Half-Marathon Nutrition. He has served as a consultant to several sports nutrition companies, as a peer reviewer for scientific journals, and as a nutrition advisor to professional runners and triathletes. Matt also provides nutrition counseling services to athletes of all experience and ability levels through racingweight.com. Learn more at

mattfitzgerald.org.

See the science behind Running On Red at www.ChooseCherries.com

Howatson G, McHugh MP, Hill JA, Brouner J, Jewell AP, van Someren KA, Shave RE, Howatson SA. Influence of tart cherry juice on indices of recovery following marathon running, Scand. J. Med. Sci. Sports, 2010; 20:843-852. ² Kuehl KS, Perrier ET, Elliot DL, Chestnutt J. Efficacy of tart cherry juice in reducing muscle pain during running: a

randomized controlled trial J. Int. Soc. Sports. Nutr. 2010;7:17-22.

*Connolly DA, McHugh MP, Padilla-Zakour OI, Carlson L., Sayers SP: Efficacy of a tart cherry juice blend in preventing the

symptoms of muscle damage. Br. J. Sports. Med. 2006;40:679-683

Bowtell JL, Sumners DP, Dyer A, Fox P, Mileva KN. Montmorency cherry juice reduces muscle damage caused by intensive strength exercise. Med. Sci. Sports. Exerc. 2011;43:1544-1551.

McHugh M. The health benefits of cherries and potential applications in sports. Scand. J. Med. Sci. Sports. 2011;21:615-616. ⁶Bell PG, Walshe IH, Davison GW, Stevenson E, Howatson G. Montmorency cherries reduce the oxidative stress and inflammatory responses to repeated days high-intensity stochastic cycling. Nutrients. 2014;6:829-843

⁷Bell PG, Walshe IH, Davison GW, Stevenson EJ, Howatson G. Recovery facilitation with Montmorency cherries following high-intensity, metabolically challenging exercise. Appl. Physiol. Nutr. Metab. Published online prior to print. 2014.



RECIPE TIP

TO TOAST NUTS. PREHEAT OVEN TO 350 DEGREES. SPREAD NUTS IN A SINGLE LAYER IN A BAKING PAN. **BAKE ABOUT 8** MINUTES OR UNTIL LIGHTLY TOASTED. **COOL NUTS BEFORE** CHOPPING.

CHERRY GOOD OATMEAL

PER SERVING: 370 calories; 3 g fat; 0 g saturated fat; 18 g protein; 420 mg sodium; 5 mg cholesterol; 67 g carbohydrates; 5 g fiber; 37 g sugar.

TOTAL TIME 18 min. PREP 5 min COOK 13 min. YIELD 2 servings

INGREDIENTS

1/2 cup dried tart cherries

2 cups lowfat milk

1/4 teaspoon salt

1 cup old-fashioned rolled oats

1/8 teaspoon ground cinnamon 1/2 cup lowfat milk

- 2 teaspoons packed brown sugar (optional)
- 4 teaspoons toasted pecans or walnuts, chopped (optional)

DIRECTIONS

Bring 2 cups milk and salt to boil in a medium saucepan. Stir in dried oats: then stir in dried tart cherries and cinnamon, Reduce heat. Simmer, uncovered, for 5 minutes, stirring occasionally. Remove from heat. Spoon oatmeal into serving bowls and pour 2 tablespoons milk over each serving. If desired, sprinkle with brown sugar and nuts.

"This is my favorite pre-race meal for events that take place close to home, where I have access to all the ingredients. Beyond oatmeal, I also top cold cereals with dried cherries for an added nutrient punch."

MATT'S TIP



TART CHERRY RECOVERY GUMMIES

PER SERVING: 10 calories; O g fat; O g saturated fat; O g protein; O mg sodium; O mg cholesterol; 2 g carbohydrates; O g fiber; 2 g sugar.

TOTAL TIME 50 min. PREP 5 min. COOK 45 min. VIELD 64 servings

INGREDIENTS

1 1/4 cups tart cherry juice 1/4 cup unflavored gelatin 1/3 cup honey

DIRECTIONS

In a small bowl, stir together the juice and the gelatin until the gelatin is fully dissolved. Pour the mixture into a small saucepan on low-medium heat and add the

honey. Continue stirring until well mixed but making sure not to boil. Remove from heat, allowing it to slightly cool before pouring into a rectangular hard candy sheet mold (use a sheet mold tray with 64 molds of 3/4" x 1"). Allow it to cool for about 10 minutes or until it begins to gel before transferring into the refrigerator. Place in the refrigerator at least 30 minutes to allow it to set.

"Tart Cherry Recovery Gummies are also good on the go. I wrap half a dozen pieces or so individually in plastic wrap and stuff them in a jersey pocket for long rides and runs."



MATT'S TIP

"For best results, eat these within 45 minutes after completing a workout. I typically shower and change first to give my stomach a chance to settle and then chow down."



Recipe courtesy of Emily Hill, IsThisREALLYMyLife.com

TOTAL TIME 35 min. PREP 5 min. COOK 30 min. YIELD 24 servings

CHERRY CHOCOLATE CHIP PROTEIN BITES

PER SERVING: 110 calories; 6 g fat; 2.5 g saturated fat; 3 g protein; 35 mg sodium; 0 mg cholesterol; 13 g carbohydrates; 2 g fiber; 3 g sugar.

INGREDIENTS

1/4 to 1/2 cup dried tart cherries, coarsely chopped 1 cup old-fashioned rolled oats 1 cup coconut, shredded 1/2 cup all-natural peanut butter 1/2 cup ground flaxseed 1/2 cup mini chocolate chips 1/3 cup honey 1 teaspoon vanilla extract

DIRECTIONS

Stir all ingredients together in a medium bowl until thoroughly mixed. Let chill in the refrigerator for half an hour. Once chilled, roll into balls of whatever size you would like. (A small cookie dough scoop works perfectly!) Store in an airtight container and keep refrigerated for up to 1 week.

"This recipe works well as a pre-workout fuel also. I sometimes drink the first serving before heading out the door and the second one as soon as I get home."

MATT'S TIP



RECIPE TIP

EXTRA PORTIONS
MAY BE FROZEN
IN FREEZER-SAFE
(PLASTIC) GLASSES
FOR UP TO 3
MONTHS. ALLOW TO
SOFTEN AT ROOM
TEMPERATURE
BEFORE SERVING.

Recipe courtesy of Averie Sunshine, Averiecooks.com

CHERRY REVITALIZER SMOOTHIE

PER SERVING: 190 calories; 1 g fat; 0 g saturated fat; 4 g protein; 150 mg sodium; 0 mg cholesterol; 45 g carbohydrates; 6 g fiber; 29 g sugar.

INGREDIENTS

2 cups frozen tart cherries

2 medium/large ripe bananas (previously frozen in chunks)

1 cup coconut water

(water may be substituted)

1 teaspoon vanilla or almond extract

Sweetener, to taste

DIRECTIONS

Combine all ingredients in a blender and blend until smooth and creamy. Serve immediately.





TOTAL TIME 10 min. PREP 10 min. YIELD 4 servings

INGREDIENTS

Dressing

3 tablespoons tart cherry juice

1 tablespoon rice wine vinegar

1/2 teaspoon dry mustard

1 teaspoon coriander seeds, coarsely cracked

1 tablespoon honey

1 tablespoon olive oil Salt and pepper to taste

Salad

1 1/3 cups dried tart cherries 8 cups spring mix lettuce

1/3 cup red onion, diced

2 ripe avocados, peeled, seeded, and sliced thin

1 large ripe mango, peeled, seeded, and chopped

DIRECTIONS

In a small bowl, whisk together tart cherry juice, vinegar, mustard, coriander seeds, honey, olive oil, and salt/pepper. Set aside.

Divide lettuce evenly onto 4 salad plates. Set aside. Layer diced red onion, avocado slices, mango chunks, and dried tart cherries evenly atop each of the lettuce heaps. Drizzle with dressing and serve immediately.

PER SERVING: 400 calories; 19 g fat; 2.5 g saturated fat; 7 g protein; 110 mg sodium; 0 mg cholesterol; 55 g carbohydrates; 13 g fiber; 30 g sugar.



WHAT YOU CAN DO:

RECOVER WITH RED

HERE ARE SOME EASY WAYS TO MAKE TART CHERRIES A PART OF YOUR DAILY TRAINING REGIMEN.

DRINK UP: Not only is tart cherry juice delicious, drinking one 8-ounce serving before your workout and another after packs a nutritious punch equivalent to nearly 100 Montmorency tart cherries in each serving!

ON-THE-GO: Carry some dried tart cherries in your bag or try an easy, doit-yourself trail mix using dried cherries, almonds, pistachios and whole-grain cereal.

IN A SMOOTHIE: Also try a tart cherry smoothie – blending tart cherry juice and Greek yogurt with frozen tart cherries.

STRAIGHT UP: Look for tart cherry juice or concentrate in your local supermarket, or buy it online. You can mix it with water or drink it straight as a shot.

"There are many sources of nutrition to aid muscle recovery in endurance athletes. I prefer natural food sources that are delicious and versatile. Tart cherries are at the top of my list. There's even a cherry tree in my backyard! I encourage all endurance athletes to make tart cherries their natural recovery superfood as I have."





For more tart cherry tips, recipes, and recovery information, visit www.ChooseCherries.com.