

CALIFORNIA RAISINS SWEET. NATURALLY.

A NUTRITION HANDBOOK FOR

DIABETIC EDUCATORS





CALIFORNIA RAISINS:

A PREFERRED SNACK OPTION FOR DIABETIC MEAL PLANS

California Raisins — the tiny fruit that adds big taste to breakfast, lunch, dinner and snack time — is also a diabetes-friendly food. A study of people with Type 2 diabetes mellitus (T2DM) showed that those who consumed raisins compared to an alternative snack had lower post-meal glucose levels and systolic blood pressure. There were no significant changes observed for other fasting glucose and other cardiovascular risk factors.¹

DIABETES: A GROWING AMERICAN EPIDEMIC

As a nutrition professional and diabetes educator, you're no stranger to the fact that diabetes diagnoses are growing in America and around the globe.

In 2020, the Centers for Disease Control reported that 34.2 million Americans have diabetes. That accounts for 10.5% of the U.S. population, and nearly 21.4 percent of these are undiagnosed cases. Another 88 million adults are thought to have pre-diabetes.²

**34.2
MILLION**

Americans
have diabetes

That's

10.5%

of the U.S. population

21.4%

are
undiagnosed

**88
MILLION**

Americans are thought to
have pre-diabetes

SMALL FRUIT,

MIGHTY NUTRITION

Given the magnitude of the diabetes problem, and knowing that the nutritional quality of foods is one factor that influences glucose levels and cardiovascular disease risk among patients with T2DM, a first-of-its-kind study was conducted with California Raisins and patients with T2DM.³

This 12-week study was conducted among 51 individuals with T2DM (47 completed the study) with an average age of 58 who were generally overweight or obese.

The research, published in *The Physician and Sportsmedicine* journal, revealed study participants who consumed one ounce of raisins three times a day for the duration of the study — as compared to a group that ate a comparable amount of equal caloric snacks — were shown to have:

- A significant (23%) reduction in postprandial (post-meal) glucose levels
- A significant reduction (8.7mmHg) in systolic blood pressure
- There were no significant changes observed for fasting glucose and other cardiocascular risk factors.



23%
REDUCTION

in postprandial
(post-meal) glucose levels

A SIGNIFICANT
REDUCTION
(8.7mmHg)

in systolic
blood pressure

These recent findings build on previous research announced at the American College of Cardiology's Annual Scientific Session in 2012. In this study, 46 men and women with pre-hypertension were randomly assigned to snack on raisins or pre-packaged commercial snacks that did not contain raisins or other fruits or vegetables, three times a day for 12 weeks. The results indicated that eating raisins three times per day:

- May significantly lower blood pressure among individuals with pre-hypertension when compared to other popular snacks.⁴
- May significantly lower postprandial (post-meal) glucose levels when compared to other popular snacks of equal caloric value.⁵

Both studies were conducted at the Louisville Metabolic and Atherosclerotic Research Center (L-MARC) by Harold Bays, MD, medical director and president of L-MARC.



“Raisins are excellent food choices for most individuals, including those with T2DM.”

“We recently reported in the scientific literature two carefully controlled clinical trials comparing the effects of raisin intake to commonly used snacks in persons, first, with pre-diabetes and, second, with T2DM. In both groups the intake of raisin snacks three times daily significantly decreased systolic blood pressure compared to conventional snacks, and post-meal blood glucose values were favorably affected by raisins compared to snacks.”

— James W. Anderson, MD, Professor of Medicine and Clinical Nutrition, Emeritus, University of Kentucky



A NUTRITIONAL POWERHOUSE

California Raisins are made for nutritious snacking. Dried in the warm California sunshine, they come by their sweetness naturally — with no added sugar — plus zero fat, no cholesterol, 7% of your daily fiber, 6% of your daily potassium, 4% of your daily iron (per quarter cup serving). The ingredient list says it all: Raisins.

Convenient and portable for an on-the-go lifestyle, they can be stowed in your purse, gym bag, briefcase — even in your desk at the office.

0%
OF YOUR
DAILY
FAT

0%
OF YOUR
DAILY
CHOLESTROL

0%
ADDED SUGAR

THE
INGREDIENT
LIST SAYS
IT ALL

Nutrition Facts	
1 serving per container	
Serving size	1/4 cup (40g)
Amount per serving	
Calories	120
% Daily Value*	
Total Fat 0g	0 %
Saturated Fat 0g	0 %
Trans Fat 0g	
Cholesterol 0mg	0 %
Sodium 10mg	0 %
Total Carbohydrate 32g	12 %
Dietary Fiber 2g	7 %
Total Sugars 26g	
Includes 0 Added Sugars	0 %
Protein 1g	
Vitamin D 0mcg	0 %
Calcium 25mg	2 %
Iron 0.7mg	4 %
Potassium 298mg	6 %
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	
Ingredients: California Raisins	

1/4 cup
serving size
= 2
carb
choices

7%
OF YOUR
DAILY
FIBER

4%
OF YOUR
DAILY
IRON

6%
OF YOUR
DAILY
POTASSIUM



CALIFORNIA RAISINS:

WHERE NUTRITION MEETS TASTE

Looking for a fresh take on healthy, easy snacks, side dishes and entrées? Patients will love these recipe ideas, plus carb choices are included for easy carb counting!



GRAB-AND-GO SNACK PAIRINGS

Consistent carbohydrate intake throughout the day is important for managing blood sugar, making snacks an essential bridge between meals. Offer your patients these low-carb and low-calorie snack ideas as part of an overall nutrition strategy

2 TBSP. CALIFORNIA RAISINS = 1 CARBOHYDRATE CHOICE OF FRUIT

Choose one fruit choice of all-natural California Raisins and pair with a protein, healthy fat or non-starchy vegetable to create a sweet and a savory snack, eaten side by side. Each snack pair is only 15-20 grams of carbohydrates and about 200 calories or less.



1 FRUIT CHOICE + PROTEIN, GOOD FAT OR NON-STARCHY VEGETABLE

2 Tbsp. California Raisins

½ cup low-fat cottage cheese

1 low-fat string cheese

1 hard-boiled egg

¼ cup beef jerky, low sodium

½ oz. nuts (approx. 7 walnuts, 12 almonds, 15 peanuts, 25 pistachios)

¼ cup soy nuts, unsalted

½ cup jicama slices

SNACK



PUMPKIN PIE POPCORN MIX

WITH CALIFORNIA RAISINS

Prep Time : 5 min | Cook Time : 5 min
Ready Time : 10 min | Serves: 12 cups

1 CARB CHOICE

Serving size: ½ cup

INGREDIENTS

9 cups air-popped popcorn
1 tablespoon pumpkin pie spice
1/4 cup sugar
Butter-flavored cooking spray
1 cup California Raisins
1 pkg. (5 ounces) glazed pecans

PROCEDURE

Place popcorn in a large bowl and remove all unpopped kernels. In small bowl, stir sugar and pumpkin pie spice together. Spray popcorn liberally with nonstick cooking spray, tossing to coat evenly. Add raisins and pecans. Sprinkle with sugar mixture and toss until popcorn is well coated, adding additional spray as needed.

Nutrition Facts Per Serving

Calories 90 (23% from fat); Total Fat 5g (sat 0.5g, mono 3g, poly 1.25g, trans 0g);
Cholesterol 0mg; Protein 1g; Carbohydrate 12g; (Dietary Fiber 1.5g; Sugars 8g);
Iron 0.5 mg; Sodium 0mg; Calcium 7mg; Potassium 89mg

For more diabetes-friendly recipes, visit calraisins.org

SNACK

QUICK-FIX TRAIL MIX SNACK BARS

WITH CALIFORNIA RAISINS

Prep Time : 10 min | Cook Time : 20 min
Ready Time : 30 min | Serves: 12

1 CARB CHOICE

Serving size: 1 bar

INGREDIENTS

Expeller-pressed canola oil spray
1 cup raw cashews
1/4 cup California Raisins
1 cup toasted pepitas (shelled pumpkin seeds)
1/2 cup raw sunflower seeds
1/3 raw sesame seeds
3 tablespoons flaxseed meal
1/2 teaspoon salt
1/4 cup honey
1 teaspoon vanilla extract

PROCEDURE

Preheat oven to 300°F and coat a 9 x 9-inch (23 x 23 cm) pan with canola oil spray. Finely chop cashews and dried fruit in a food processor (or smash the nuts in a bag, and chop the fruit) and add to a large bowl. Add pepitas, sunflower and sesame seeds, flaxseed, and salt and stir to combine. In a separate bowl, microwave the honey for a few seconds until warm. Drizzle honey and vanilla into the nut mixture and stir until completely incorporated. Pour the mixture into the pan and spread evenly. Spray a sheet of waxed paper with canola oil spray; place the waxed paper on top of the mixture, spray side down, and pack down gently with your hands. Bake until golden, 20 minutes; cool completely.

Place a cutting board on top of the pan. Lay one of your hands on top of the board and the other hand underneath the pan and firmly flip the pan upside down to release the cake from the pan. Cut into 12 bars. For maximum freshness, store bars individually in snack bags and refrigerate for up to 1 month.

Nutrition Facts Per Serving

Calories 260 Total Fat 18g (sat 3g); Cholesterol 0mg; Protein 10g; Carbohydrate 17g; Dietary Fiber 3g

For more diabetes-friendly recipes, visit calraisins.org

SIDE DISH



CALIFORNIA RAISIN

COUSCOUS WITH VEGETABLES

Serves: 8

3 CARB CHOICES

Serving size: 1 cup

Note: Pair with a fish, poultry or lean beef and a green salad and dinner is served!

INGREDIENTS

- 1 box couscous, plain
- 1/4 cup extra virgin olive oil, divided
- 1 pint red pear or cherry tomatoes, cut in half
- 2 heads fennel, bulb only, small dice
- 1 English or hothouse cucumber, peeled, seeded and small dice
- 1/2 red onion, peeled, small dice
- 1 cup California Golden Raisins or California Raisins
- 2 bunches Italian flat leaf parsley, picked and chopped
- 1/2 bunch cilantro, picked and chopped
- Juice of 4 lemons
- Salt and pepper; to taste

PROCEDURE

Pour couscous into a large bowl or shallow rectangular pan. Bring 2 cups water to a boil. Drizzle 2 tablespoons of olive oil over couscous; pour boiling water to cover over all, mix with fork. Cover with plastic wrap and set aside for 5 minutes. Remove plastic wrap and fluff couscous with fork to remove lumps, and let cool. Add remaining ingredients and toss well; season to taste with salt and pepper. Reheat to serve.

Note: Make sure all ingredients are ready before making couscous. For variety, sprinkle crumbled feta cheese on top just before serving.

Nutrition Facts Per Serving

Calories 290 (23% from fat); Total Fat 7g (sat 1g, mono 5g, poly 1g, trans 0g); Cholesterol 0mg; Protein 6g; Carbohydrate 49g; (Dietary Fiber 5g; Sugars 17g); Iron 2mg; Sodium 30mg; Calcium 55mg; Potassium 518mg

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SIDE DISH



SPRING VEGETABLE

SAUTÉ

Serves: 8

2 CARB CHOICES

Serving size: 1/8 of recipe

INGREDIENTS

- 8 baby artichokes
- 16 baby carrots, peeled and trimmed
- 1 cup thin green beans, cut in 1-1/2-inch lengths
- 16 frozen white pearl onions, thawed
- 1 tablespoon butter
- 1 clove garlic, minced
- 12 green onions, white and light-green parts cut into 1-1/2-inch lengths
- 1 cup California raisins
- 1/4 cup fresh chopped parsley leaves
- 1/2 teaspoon salt
- Pinch freshly ground pepper

PROCEDURE

Cook artichokes in boiling salted water, about 8 minutes, until tender. Cool and drain. Trim, quarter and remove chokes. Set aside. In large saucepan, bring 2 to 3 quarts water to boil. Add carrots and cook about 6 minutes or until tender. Remove with slotted spoon to large bowl of ice water. Meanwhile, cook green beans in same boiling water until tender, about 3 minutes. Remove with slotted spoon to same bowl of ice water. Add pearl onions to same boiling water and cook until completely thawed and heated through. Remove with slotted spoon to same bowl of ice water. Cool vegetables and drain thoroughly. (May be prepared a day ahead to this point and stored in refrigerator.)

Just before serving, heat butter in large skillet over medium-high heat. Add garlic and cook until lightly browned. Stir in prepared vegetables, green onions and raisins. Sauté, stirring constantly, until vegetables are hot and coated with butter. Add parsley, salt and pepper; toss and serve.

Nutrition Facts Per Serving

Calories 120 (13% from fat); Total Fat 2g (sat 1g, mono 0g, poly 0g, trans 0g); Cholesterol 5mg; Protein 3g; Carbohydrate 25g; (Dietary Fiber 3g; Sugars 18g;); Iron 2mg; Sodium 360mg; Calcium 32mg; Potassium 234mg

For more diabetes-friendly recipes, visit calraisins.org

ENTRÉE



SWEET AND SPICY

JERK CHICKEN

Serves: 6

1.5 CARB CHOICES

Serving size: One chicken breast, approx. 3 oz.

Note: This recipe counts as low-fat (<3 grams total fat per serving).

INGREDIENTS

JERK MARINADE

- 1 cup finely chopped scallions
- 1 tablespoon light soy sauce
- 1 tablespoon fresh lime juice
- 1 1/2 tablespoons jerk seasoning
- 1/2 tablespoon chopped garlic (about 1 medium clove)
- 1 teaspoon sugar
- 3/4 teaspoon crumbled dried thyme
- 1/2 teaspoon ground cinnamon
- 6 boneless, skinless chicken breasts (about 4 ounces each)

SAUCE

- 1/2 cup California Raisins
- 1/4 cup light soy sauce
- 1 1/2 tablespoons jerk seasoning
- 1/2 tablespoon sugar
- 1/4 cup crushed pineapple with juice
- 1/2 tablespoon fresh lime juice
- 1/4 cup California Golden Raisins; for garnish
- Tropical fruit slices; for garnish

PROCEDURE

MARINATE CHICKEN

Prepare 1 day in advance. In a large bowl, combine all the marinade ingredients; add chicken and marinate overnight in the refrigerator.

SAUCE

Can be prepared 1 day in advance. Lightly coat the bowl and blade of a food processor with oil or nonstick cooking spray and purée the raisins to make 1/4 cup raisin paste. (The paste will be very sticky). Add remaining sauce ingredients except the golden raisins and process until completely smooth. Transfer sauce to storage container; cover and refrigerate until ready to use.

TO ASSEMBLE

In a small saucepan, heat sauce. Grill or broil chicken until cooked through and arrange on a serving plate. Spoon some sauce over each piece and sprinkle with golden raisins. Garnish with slices of tropical fruit and serve with rice.

Nutrition Facts Per Serving

Calories 210 (7% from fat); Total Fat 1.5g (sat 0g, mono 0g, poly 0g, trans 0g); Cholesterol 65mg; Protein 27g; Carbohydrate 22g; (Dietary Fiber 2g; Sugars 18g); Iron 2mg; Sodium 830mg; Calcium 42mg; Potassium 509mg

For more diabetes-friendly recipes, visit calraisins.org

ENTRÉE

RED SNAPPER

VERACRUZO

Serves: 4

2 CARB CHOICES

Serving size: 3 oz. fish filet and ½ cup sauce

Note: Serve with 2 corn tortillas (2 carb choices) and a green salad for a complete meal.



INGREDIENTS

- 1 pound red snapper fillets, skin on and bones removed
- 1 tablespoon fresh lime juice
- Salt and pepper; to taste
- 2 tablespoons vegetable oil
- 1 yellow onion, minced
- 1/3 poblano pepper, seeded and sliced thin
- 1 clove garlic, sliced
- 1 serrano chile, seeded and sliced thin
- 1 3/4 cups (1-1/2 pounds) canned, crushed tomatoes in juice
- 1 tablespoon green olives, sliced
- 2 teaspoons capers
- 1/2 cup California Golden Raisins
- 2/3 cup fish stock or bottled clam juice

PROCEDURE

Preheat oven to 350°F. Line baking dish with parchment and arrange fillets side by side. Sprinkle fish fillets with lime juice and season with salt and pepper; set aside.

In a heavy sautépan, heat oil and sauté onions until translucent. Add poblano pepper and cook until soft. Stir in garlic and chile; cook about 30 seconds more. Add tomatoes, olives, capers, raisins and fish stock; heat and simmer for 20 minutes. Remove from heat, season to taste; divide and pour into individual casseroles. Arrange fillets, skin side down, on top. Bake at 350°F until done, about 12 minutes. Serve immediately.

Nutrition Facts Per Serving

Calories 310 (27% from fat); Total Fat 9g (sat 1g, mono 4g, poly 2g, trans 0g); Cholesterol 40mg; Protein 27g; Carbohydrate 30g; (Dietary Fiber 4g; Sugars 21g;); Iron 2mg; Sodium 510mg; Calcium 107mg; Potassium 849mg

For more diabetes-friendly recipes, visit calaisins.org

CITATIONS

1,3 Bays, H., et. al. A Randomized Study of Raisins Versus Alternative Snacks On Glycemic Control and Other Cardiovascular Risk Factors in Patients With Type 2 Diabetes Mellitus. *The Physician and Sportsmedicine*; 2015.

1,3 Anderson, J.W. et. al. Raisins Compared with other Snack Effects on Glycemia and Blood Pressure: A Randomized, Controlled Trial. *Post grad Med* 2014;126:37-43.

2 Centers for Disease Control and Prevention. National diabetes statistics report: estimates of diabetes and its burden in the United States, 2020. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2020.

4 Bays, H., et. al. Raisins and Blood Pressure: A Randomized, Controlled Trial. Poster session presented at: American College of Cardiology's 61st Annual Scientific Session; 2012 March 24-27; Chicago, IL.

5 Bays, H., et. al. Raisins and Blood Glucose: A Randomized, Controlled Trial. Poster session presented at American Diabetes Association's 72nd Annual Scientific Session; 2012 June 8-12; Philadelphia, PA.



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