Healthy Eating Guide



patient navigation center

Introduction

The food we eat every day can affect our health. Certain foods give us energy, make us feel good, and help the body work well. Each year, the National Psoriasis Foundation (NPF) hears from people who want to know what foods they should eat or avoid to improve their psoriatic disease. This is a great question without a simple answer.

It is hard to recommend 1 diet for all people living with psoriatic disease because every person responds to food differently. However, there is research about diet and psoriatic disease that may be helpful to talk about with your health care provider.

Always talk with a health care provider before changing your diet or adding supplements to your diet. Certain foods or supplements may not be safe or could interfere with treatments you are using.

Eating healthy foods is an important part of any treatment plan and should not replace treatments prescribed by your provider. Talk with your provider to make sure you are treating your disease appropriately. **Psoriatic disease** is a chronic immune-mediated disease that includes psoriasis, related comorbidities such as psoriatic arthritis, and underlying systemic inflammation. Psoriatic disease is lifelong, and symptoms may resolve and recur throughout the lifetime.

This guide includes:

- Recommendations from the NPF Medical Board article published in 2018 on diet and psoriatic disease
- Research updates on diet and psoriatic disease
- Comorbidities of psoriatic disease
- Recipes for healthy meals

Dietary Recommendations from the NPF Medical Board

In 2018, the NPF Medical Board wrote an article explaining the impact of diet on psoriasis and psoriatic arthritis.¹ In this article, experts in the psoriatic disease field looked at research including 55 studies and more than 4,500 psoriasis patients. The experts came up with dietary recommendations which may be added to your prescribed treatments.



Recommendation #1: If you are overweight or obese, try to eat fewer calories each day.

Research suggests there is a strong link between psoriatic disease and obesity. People who are obese are more likely to develop psoriatic disease, have more severe skin symptoms, and have treatments not work as well compared to people who are not obese. The connection between psoriatic disease and obesity is complex and may be partially explained by inflammation caused by excess body fat. Eating fewer calories (also called a hypocaloric diet) may benefit people who are overweight and living with psoriatic disease.

However, a hypocaloric diet alone may not lead to improvements in psoriasis or psoriatic arthritis symptoms. The research is limited on whether a hypocaloric diet has the same benefit for people with lower body mass index (BMI) or if these same improvements can come from weight loss due to physical activity.¹ If eating fewer calories is a goal for you, talk with your health care team to make a safe and effective plan.

Recommendation #2: If you have been diagnosed with celiac disease, try a gluten-free diet. If you test positive for a gluten sensitivity, try a gluten-free diet for 3 months.



There is a link between psoriasis and celiac disease. People with psoriasis are more likely to develop celiac disease; people with celiac disease are more likely to develop psoriasis. Some

people with psoriasis and celiac disease saw psoriasis symptoms improve when they stopped eating foods with gluten. Also, people with a gluten sensitivity saw an

improvement in psoriasis symptoms when they tried a glutenfree diet. However, if you do not have a gluten sensitivity or celiac disease, there may be no benefit to trying a gluten-free diet. There is also limited research on whether a gluten-free diet can help to improve symptoms of psoriatic arthritis.¹ **Tip:** If you think you may have a sensitivity or if you have a family history of gluten sensitivity or celiac disease, talk with your health care provider before removing gluten from your diet. The antibody test that helps diagnose celiac disease is most accurate if you have gluten in your diet.²

Recommendation #3: If you have psoriatic arthritis, try a Vitamin D supplement.



Based on current research, Vitamin D supplements are recommended for people living with psoriatic arthritis. Currently there is not enough evidence to show that Vitamin D supplements may help with psoriasis.¹ Talk with your health care provider before taking supplements because some supplements may not be safe to take with other medications and may make you feel worse.

Recommendation #4: Try the Mediterranean diet if you have psoriasis.



There is some evidence that eating a Mediterranean diet if you have psoriasis may help improve symptoms. There is limited data to suggest the Mediterranean diet will improve symptoms of psoriatic arthritis.¹

The Mediterranean diet focuses on:

- Daily consumption of fruits, vegetables, whole grains, and healthy fats
- Weekly consumption of fish, legumes, tree nuts, and poultry
- Moderate amounts of dairy products
- Limited red meat

Learn more about the Mediterranean diet from Dr. Adam Ford and dietitian Daniella Baham in the NPF podcast, Psound Bytes™ episode, "Is Choosing the Mediterranean Diet Right For You and Your Psoriatic Disease?" Access the episode at **psoriasis.org/watch-and-listen/is-mediterranean-diet-right-for-you**/.

Research Updates on Diet

More research has been done in this area since the NPF Medical Board published its recommendations in 2018. As with all topics on diet, talk with your health care provider before you make any changes. The research below are summaries of what has worked for some people living with psoriatic disease, but it may not work for you.

Gut microbiome (also called gut health)

Microbes are tiny microorganisms that live in water, soil, air, and your body. In your body, microbes live in the gut, skin, eyes, and mouth. The microbes in your body include bacteria, fungi, and viruses and they help you digest foods, prevent infections, and more. The collection of microbes in your body is called your microbiome. Research is still uncovering all the ways microbes impact your health. Changes to your microbiome are linked to health conditions such as diabetes, obesity, and inflammatory bowel diseases.³

If you would like another resource on this topic, listen to an episode of our podcast, Psound Bytes™. Hear about gut health from Dr. Jose Scher, in the episode called, **"Gut Health, Psoriasis, and Psoriatic Arthritis.**" Access the episode at **psoriasis.org/watch-and-listen/guthealth-psoriasis-and-psoriatic-arthritis**. The gut microbiome, which used to be called the gut flora, refers to the trillions of microbes in the human gut.⁴ Research has shown that the gut microbiome is less diverse among people with psoriasis and psoriatic arthritis than people without.⁵ Ask your health care provider if there are ways to improve diversity in your gut microbiome. Your provider may recommend changes to your diet or adding a probiotic supplement.

Fasting

Fasting (avoiding food and/or drink for an amount of time) is a common worldwide practice. Some people practice fasting as part of their religion while others practice it as part of a diet. Studies show that intermittent fasting can reduce levels of pro-inflammatory cells (interleukin 1, tumor necrosis factor, and interleukin 6), which are related to psoriatic disease.⁶ Limited research shows that intermittent fasting may benefit psoriasis and psoriatic arthritis symptoms.^{7,8} If you are interested in fasting, talk with your health care provider to see if it is safe for you.

Western diet

The Western diet (foods that are processed and high in sugar and fat) may trigger psoriasis and psoriatic arthritis flares.⁹ Some researchers suspect this may be due to the Western diet's impact on the gut microbiome.¹⁰ The effects of a Western diet may be reversed. Research shows that changing your diet from a Western diet to a more balanced diet can improve the gut microbiome and symptoms of psoriasis and psoriatic arthritis.⁹

Low-calorie diets

Low-calorie diets, used with prescribed treatments, can improve psoriasis symptoms and improve quality of life. Although some patients had improvements in psoriasis symptoms on low-calorie diets, some side effects included fatigue, headache, constipation, dizziness, cold sensitivity, and hunger.¹¹ If you are interested in adding a low-calorie diet to your treatment plan, talk with your health care provider to figure how many calories each day is healthy for you.

Supplements

-	Fish oil	Adding a fish oil (omega 3 fatty acid) supplement to your treatment plan may improve your psoriasis symptoms. ¹² However, talk with your provider before taking fish oil pills to make sure they are safe for you. Your provider may also have a recommendation about which brand of supplements to buy. Be careful because some brands may have harmful chemicals and toxins.
	Curcumin	Curcumin is part of the spice, turmeric. Limited research shows that curcumin may have an anti-inflammatory effect. ¹² Your provider may recommend adding turmeric to your diet as a part of your treatment plan. To help curcumin be better absorbed by the body, add black pepper whenever you are using turmeric. ¹²

Vegetarian diet

Some people have seen improvements in their psoriasis symptoms while eating a vegetarian diet, which avoids animal meat.¹³ Vegetarian diets are related to less inflammation than diets which include animal meat.¹⁴ The anti-inflammatory impact of vegetarian diets may lead to the improvement of psoriasis symptoms.¹³ If you are interested in trying a vegetarian diet, talk with your provider to make sure you are still getting key nutrients that are often found in meat products.

Adipokines

Adipokines (also called adipocytokines) are proteins released by the adipose tissue (tissues in the body that store fat) when the adipose tissue is injured or stimulated. These proteins play an important role in inflammation and diseases like obesity which is a comorbidity of psoriasis. Systemic inflammation from psoriasis can lead to the adipose tissue releasing adipokines. This area of research is still developing and there is a complicated relationship between psoriasis, adipose tissues, and the comorbidities of psoriasis.¹⁵

Learn more about adipokines and psoriasis from Dr. Nehal Mehta in the NPF podcast, Psound Bytes™ episode, "The Active Role of Adipokines in Psoriasis and Inflammation." Access the episode at **psoriasis.org/watch-and-listen/active-role-of-adipokines-in-psoriasis/**.

Comorbidities

Because psoriasis and psoriatic arthritis are related to systemic inflammation, people living with these diseases have a higher risk of developing comorbidities. A comorbidity is a disease or condition that is related to a health condition you have, such as psoriasis. A healthy diet can help prevent or manage many of these comorbidities.¹⁶ Here is a list of the comorbidities of psoriasis¹⁷:

- Psoriatic arthritis
- Cardiovascular disease (including heart attack and stroke)
- Metabolic syndrome (a group of risk factors that can lead to heart disease, diabetes, and stroke)
- Obesity

- Hypertension (high blood pressure)
- Dyslipidemia (high level of cholesterol or fats in the blood)
- Type 2 diabetes (insulin resistance)
- Anxiety and depression
- Inflammatory bowel disease

- Certain types of cancer
- Kidney disease
- Sleep apnea
- Chronic obstructive pulmonary disease
- Uveitis
- Liver disease

If you have 1 (or more) of these health conditions, talk with your health care provider about what dietary changes are best for your specific health conditions.

Recipes

To create this guide, the NPF asked our community to share their favorite recipes for a healthy and well-balanced life with psoriatic disease. With help from a registered dietitian, we have shared a few of our favorites.

From easy snacks to main dishes, we hope that this guide inspires you to try some new meals and helps you live well with psoriatic disease.







Good Morning Smoothie

Servings: 1

Nutritional information per serving: 180 calories | 11 grams protein | 7 grams fiber.

This smoothie fits well into a low-calorie meal plan for weight management.

Ingredients -

- ½ cup kefir
- ¼ cup kombucha
- ¹/₂ cup fresh or frozen berries
- ¼ cup greens (kale or spinach)
- 1 tablespoon chia or flaxseeds

Ingredient Benefits

Kefir and kombucha are good sources of probiotics. Probiotics are "good" bacteria that may help your digestive system and may help to manage chronic inflammation. Berries and kale are excellent sources of Vitamin C. Both chia and flaxseeds are good sources of omega fatty acids (particularly omega-3 fatty acids) and fiber.

Instructions -

- 1. Combine all the ingredients in a blender.
- **2.** Blend until smooth.

Servings and nutritional values are approximate.

Avocado Shake

Nutritional information per serving: 430 calories | 8 grams protein | 10 grams fiber.

Ingredients -

- 1 ripe avocado (peeled and seed removed)
- 1 cup almond or soy milk
- ¹/₂ cup low-fat Greek yogurt
- 1 teaspoon ground flaxseeds
- ½ banana
- 4 cubes of ice (optional)

Ingredient Benefits

Avocados are rich in antioxidants such as Vitamin E, C, and K.

Instructions-

- 1. Combine all ingredients in a blender.
- **2.** Blend until smooth.



Bear-y Good Peanut Butter Toast

Servings: 1

Nutritional information per serving: 370 calories |10 grams protein | 10 grams fiber.

This bear shaped toast is a great way for kids to get whole grain carbohydrates and fruit into their diet.

Ingredients -

- 1 tablespoon peanut butter
- 1 small banana, peeled
- 3 blueberries or raisins
- 1 slice of whole wheat bread

Instructions -

- **1.** Toast the slice of whole wheat bread.
- 2. Spread the peanut butter on the toast.
- 3. Slice 3 rounds of banana, place one piece near the middle of the toast, and the other two in the top two corners.
- 4. Place a blueberry or raisin on each banana piece. The middle one will be the nose and the top 2 banana pieces are the eyes of the "bear".

Servings and nutritional values are approximate.

Ingredient Benefits

Peanut butter is high in protein and a good source of fiber. For variety, try different nut butters such as almond or cashew butter.



Steel Cut Oatmeal

Servings: 4

Nutritional information per serving: 160 calories | 5 grams protein | 4 grams fiber.

This breakfast is good for weight management and heart health.

Ingredients -

- 1 tablespoon unsalted butter
- 1 cup steel cut oats
- 3 cups boiling water
- Pinch of salt

Instructions ——

Ingredient Benefits

Whole grains like steel cut oats are a good source of fiber, magnesium, and antioxidants called polyphenols.

- 1. In a 2-quart saucepan with lid, melt butter over medium-high heat. Add oats and stir often until the oats smell nutty (about 3-4 minutes).
- 2. Boil water in a kettle or other saucepan.
- 3. Stir the boiling water and salt into the oats. Reduce heat to medium and cover with lid.
- 4. Stir frequently, every 5 minutes for about 10-15 minutes.
- 5. Reduce heat to low and cook another 5-10 minutes stirring frequently until desired consistency.
- 6. Store leftover in a tightly sealed container in the refrigerator for up to 7 days.

Flavor Twist

Serve with milk or yogurt. Top with sliced bananas, dried fruit (cranberries or blueberries), walnuts, and apples. Sprinkle with cinnamon for an added antioxidant boost.



Marinated Tomato Slices

Servings: 4

Nutritional information per serving: 85 calories | 1 gram protein | 2 grams fiber.

Ingredients -

- **3 large** fresh tomatoes, sliced ¼ inch thick
- 1/8 teaspoon garlic powder
- 1/8 teaspoon pepper
- ¼ teaspoon basil
- 1 tablespoon dried minced onion
- 1 tablespoon red or white wine vinegar
- 2 tablespoons extra virgin olive oil
- 4 Romaine lettuce leaves

Ingredient Benefits

Tomatoes are an excellent source of lycopene, Betacarotene, Vitamin C, and potassium. Romaine lettuce also provides potassium as well as folate and Vitamin K.

Instructions-

- 1. Slice tomatoes and place in a bowl.
- 2. In another bowl, place seasonings, wine vinegar, and olive oil. Mix well.
- **3.** Spoon marinade over each tomato slice. Cover and place in the refrigerator for 1 hour.
- **4.** To serve arrange tomato slices on lettuce leaves on a platter or just serve as is.



Grilled Cauliflower

Servings: 2

Nutritional information per serving: 200 calories | 6 grams protein | 6 grams fiber.

Good for weight management and heart health.

Ingredients -

- 1 large head of cauliflower
- 2 tablespoons olive oil
- 2 lemons (zested and juiced)
- 2 cloves of garlic (finely minced)
- Pinch of sea salt
- Fresh or dry parsley to garnish

Instructions-

- 1. Cut the cauliflower into thick slices (about ½ of an inch thick).
- 2. In a small bowl stir together olive oil, lemon zest and juice, and garlic to make a sauce.
- 3. Heat grill to medium (about 350 degrees Fahrenheit).
- 4. Brush one side of cauliflower slices with sauce and sprinkle with salt.
- 5. Place the brushed side down on the hot grill.
- 6. Brush the top side with the rest of the sauce and sprinkle with salt.
- 7. Cover the grill and cook 5-6 minutes until the bottom begins to char.
- 8. Flip the slices and re-cover the grill and cook an additional 5 minutes or until the cauliflower is tender.
- 9. Remove from grill, sprinkle with parsley.

Recipe Tip

You can also make this recipe on a grill pan or cast-iron skillet on the stove top.

Servings and nutritional values are approximate.

Ingredient Benefits

Cauliflower provides a good source of fiber.

Olive oil contains antioxidants called polyphenols as well as Vitamins A, D, E, and K to help fight inflammation.

Lemon Mustard Chicken

Servings: 4

Nutritional information per serving: 200 calories | 50 grams protein.

Good for weight management and heart health.

Ingredients -

- 4 large boneless, skinless chicken breasts
- Salt and pepper to taste
- 2 tablespoons olive oil
- 3 tablespoons chopped green onions
- 1 lemon (juiced)
- ¹/₄ cup white wine
- ¼ cup chicken broth
- 2 teaspoons mustard (Dijon or stone ground)
- 2 tablespoons capers (optional)

Instructions-

- 1. Pound chicken breasts slightly with mallet.
- 2. Heat 1 tablespoon of oil in a large skillet.
- 3. Cook chicken over high heat for 2 minutes on each side.
- 4. Season with salt and pepper while cooking.
- 5. Transfer to a plate.
- 6. Add 1 tablespoon of oil to skillet. Add green onions, lemon juice, white wine, and mustard. If using capers add them to the skillet. Cook for 15 seconds whisking constantly. Whisk in chicken broth.
- 7. Add chicken back to the skillet. Spoon sauce over chicken and cook for 2-5 minutes spooning sauce over the chicken.
- 8. Serve over whole grain noodles, brown rice, or quinoa.

Servings and nutritional values are approximate.

Ingredient Benefits

Chicken breasts are high in protein and relatively low in fat. Protein dense foods can help you feel full without overeating.



Greens over Grains

Servings: 4

Nutritional information per serving: 453 calories | 12 grams protein | 2 grams fiber.

Ingredients —

- 1 cup brown rice
- 2 cups water
- **2 bunches** kale, sliced or chopped (or other greens like collards, chard, Bok choy, or spinach)
- 4 tablespoons extra virgin olive oil
- 1 inch piece of ginger, peeled and grated or minced
- 4 cloves garlic, peeled and minced
- 4 tablespoons soy sauce
- 2 tablespoons sesame oil (optional)
- 1 tablespoon rice vinegar (optional)
- 4 eggs

Ingredient Benefits

Brown rice is a whole grain and an excellent source of fiber. Kale is high in Vitamins A, K, and C. Extra-virgin olive oil is high is monounsaturated fat and Vitamin E. Garlic provides a variety of beneficial plant compounds.

Instructions —

- 1. Rinse rice under cold water. Place the rinsed rice in a medium saucepan with 2 cups of water.
- 2. Bring to a simmer, then turn down to mediumlow and cover. Cook for 45 minutes or until the water is absorbed and the rice is tender. Cover and set aside while you make the greens.
- **3.** Wash the greens in cold water. Remove the ends of the stems and cut greens into bite-sized pieces.
- 4. In a sauté pan, heat 3 tablespoons of olive oil over medium heat. When oil is shimmering, add the chopped greens and 2 tablespoons water. Cook for 2-3 minutes.
- When greens are about half-cooked and water has evaporated, add garlic, ginger, soy sauce, sesame oil and rice vinegar.
- 6. Cook until greens are tender. Set aside.
- 7. Heat 1 tablespoon of olive oil in a medium skillet. Crack eggs into skillet and season with salt and pepper. Cover with a lid and cook for 4 minutes for a runny yolk or 6 minutes for a hard yolk.
- 8. Serve the sauteed greens over rice with a fried egg on top.



Sweet Potato Chickpea Curry

Servings: 4

Nutritional information per serving: 679 calories | 24 grams protein | 23 grams fiber.

Ingredients -

- 1 teaspoon olive oil
- 1 tablespoon cumin seeds (optional)
- 1 medium onion, finely chopped
- 3 large cloves garlic, minced
- 4 teaspoons fresh ginger, peeled and grated
- 1 teaspoon ground turmeric
- 1 teaspoon ground coriander (optional)
- ¼ teaspoon red pepper flakes, or to taste
- 1 large sweet potato, peeled & cut into ½ inch pieces (about 3 cups)
- 1 14-oz can chickpeas, drained & rinsed, or 1 ½ cups cooked chickpeas
- 1 14-oz can diced tomatoes, with juices
- 1 14-oz can light coconut milk
- 5 oz fresh baby spinach
- Salt and black pepper to taste
- Cooked brown rice or other whole grain such as couscous or quinoa

Ingredient Benefits

Turmeric contains phytochemicals and has antiinflammatory benefits. Sweet potatoes contain carotenoids and a good source of potassium and Vitamin C. Chickpeas are a good source of folate and fiber. Tomatoes and spinach both provide Vitamin C and Beta-carotene.

Instructions —

- In a large saucepan, heat olive oil over medium heat. The oil is hot enough when a cumin seed sizzles when tossed into the pan. Add the cumin seeds and toast for 30 seconds to 1 minute, until fragrant and lightly darkened in color (be careful not to burn them). Immediately add the onion and a pinch of salt. Cook for 3-5 minutes, or until the onions are soft.
- 2. Add the garlic, ginger, turmeric, coriander, and red pepper flakes. Stir to combine and sauté for 2-3 minutes.
- 3. Add the diced sweet potato, chickpeas, diced tomatoes with their juices, and coconut milk. Stir to combine, cover, and simmer over medium heat for 20 to 30 minutes, or until the potatoes are tender when poked with a fork.
- 4. Stir in the spinach and cook for 1 minute or until wilted. Season with the salt and black pepper to taste.
- 5. Serve over brown rice or a whole grain, garnish with cilantro.



Cabbage Roll Soup

Servings: 4

Nutritional information per serving: 683 calories | 62 grams protein | 6 grams fiber.

Ingredients -

- 2 tablespoons extra virgin olive oil
- 1 ½ pounds lean ground beef
- 1 medium onion, peeled and diced
- 2 cloves garlic, peeled and minced
- 3 cups cabbage, chopped
- 2 carrots, diced
- 3 cups beef broth
- 3 cups canned tomato sauce
- 1 cup white rice
- 1 bay leaf
- 3 tablespoons brown sugar (optional)
- 2 tablespoons parsley

Ingredient Tip

Substitute the ground beef for ground chicken or turkey for reduced fat and calories. You can also make this recipe vegetarian by leaving out the ground beef and replacing the beef broth with vegetable broth. Both onion and garlic are part of the allium family that provides a variety of phytochemicals. Cabbage is in the cruciferous vegetable family that provides folate, fiber, and Vitamin C. For extra fiber and other beneficial nutrients, use brown rice instead of white rice.

Instructions ———

- In a large pot, heat olive oil over medium-high heat and add ground beef. Season ground beef with salt and pepper and cook until browned. Drain off any extra grease.
- 2. Add diced onion and minced garlic. Cook for 2-3 minutes until onions are soft.
- **3.** Add in chopped cabbage, diced carrots, tomato sauce, beef broth, white rice, bay leaf, and brown sugar. Stir to combine.
- 4. Bring soup to a simmer and let cook for 25 minutes, until rice is tender.
- 5. Before serving, remove the bay leaf and top with chopped parsley.





Not Your Average Vegetable Pizza

Servings: 4

Nutritional information per serving: 500 calories | 10 grams protein | 10 grams fiber.

Ingredients —

- 1 Whole wheat pizza crust
- 1 container (16 oz) light sour cream
- 1 small package ranch seasoning
- 1 teaspoon dill weed
- ¹/₂ cup celery (chopped)
- ¹/₂ cup broccoli (chopped)
- ¹/₂ cup green bell pepper (chopped)
- ¹/₂ cup red bell pepper (chopped)
- ¹/₂ cup carrot (grated)
- 1 cup radishes (sliced)

Instructions-

- 1. Bake pizza crust according to package directions.
- 2. While crust is baking, mix together sour cream, package of ranch seasoning and dill weed.
- **3.** Spread dressing on pizza crust when cool.
- 4. Top with celery, broccoli, green and red bell peppers, carrots, and radishes.

Servings and nutritional values are approximate.

Ingredient Tips

For more phytochemical power try adding spinach or kale. Phytochemicals are compounds found in fruits, vegetables, grains, and beans that may protect cells from damage that may lead to cancer.

Beans, Rice, and Everything Nice

Servings: 4

Nutritional information per serving: 215 calories | 8 grams protein.

Good for weight management and heart health.

Ingredients -

- 2 tablespoons olive oil
- 1 onion (chopped)
- 2 bell peppers (chopped)
- 2 cups spinach
- 2 cloves garlic (minced)
- 15 oz can black beans (drained)
- 1 cup jasmine rice
- 2 cups water
- 1 tablespoon ground cumin
- 1 teaspoon ground paprika
- Salt and pepper to taste

Instructions-

- 1. Heat oil in a large skillet on medium-high heat.
- 2. Add chopped onion and chopped bell peppers to the skillet. Stir frequently for a few minutes until the onion is translucent (clear).
- 3. Add spinach and garlic to the skillet and stir.
- 4. Add can of drained black beans, rice, and water to the skillet. Increase heat to high to bring to a boil.
- 5. Once it reaches a boil, reduce heat to a low simmer.
- 6. Stir in spices.
- 7. Stir every few minutes for 6-10 minutes or until the rice is fully cooked (before it sticks to the bottom of the skillet).
- 8. You may add in more water if needed to help the rice cook.
- 9. Season with salt and pepper to taste.

Servings and nutritional values are approximate.

Ingredient Benefits

This dish is cost effective and high in fiber and protein. Beans have a variety of phytochemicals that may be helpful in reducing inflammation. Spinach is high in fiber and folate. Garlic may help decrease inflammation.



Healthy Popsicles

Servings: 6

Nutritional information per serving: 86 calories | 5 grams protein | 1 gram fiber.

Ingredients ——

- 2 cups fresh or frozen fruit (blueberries, strawberries, mango, peaches, raspberries, etc.)
- 2 cups vanilla low-fat yogurt

Instructions —

- 1. Fill popsicle molds halfway with yogurt.
- 2. Press fruit into the molds until the yogurt reaches the top.
- **3.** Place popsicle sticks in the molds and freeze overnight or for 6-8 hours.

Servings and nutritional values are approximate.



Ingredient Benefits

Yogurt is high in protein and calcium. It also contains probiotics that help with gut health. Berries are a great source of Vitamin C and fiber. Mangoes and peaches also have Vitamin C as well as Vitamin A and carotenoids found in yellow-orange fruit and vegetables.

References

1. Ford AR, Siegel M, Bagel J, et al. Dietary Recommendations for Adults With Psoriasis or Psoriatic Arthritis From the Medical Board of the National Psoriasis Foundation: A Systematic Review. JAMA Dermatol. 2018;154(8):934-950. doi:10.1001/jamadermatol.2018.1412

2. Antibody Blood Tests. The University of Chicago Medicine: Celiac Disease Center. http://www.cureceliacdisease.org/wp-content/uploads/341_ CDCFactSheets3_Antibody.pdf. Accessed August 2, 2021.

3. Your Body's Bugs. National Institute of Health: News in Health. https://newsinhealth.nih.gov/2021/08/your-bodys-bugs. Accessed August 6, 2021.

4. Thursby E, Juge N. Introduction to the human gut microbiota. Biochem J. 2017;474(11):1823-1836. Published 2017 May 16. doi:10.1042/BCJ20160510

5. Scher JU, Ubeda C, Artacho A, et al. Decreased bacterial diversity characterizes the altered gut microbiota in patients with psoriatic arthritis, resembling dysbiosis in inflammatory bowel disease. Arthritis Rheumatol. 2015;67(1):128-139. doi:10.1002/art.38892

6. Adawi M, Watad A, Brown S, et al. Ramadan Fasting Exerts Immunomodulatory Effects: Insights from a Systematic Review. Front Immunol. 2017;8:1144. Published 2017 Nov 27. doi:10.3389/fimmu.2017.01144

7. Adawi M, Damiani G, Bragazzi NL, et al. The Impact of Intermittent Fasting (Ramadan Fasting) on Psoriatic Arthritis Disease Activity, Enthesitis, and Dactylitis: A Multicentre Study. Nutrients. 2019;11(3):601. Published 2019 Mar 12. doi:10.3390/nu11030601

8. Damiani G, Watad A, Bridgewood C, et al. The Impact of Ramadan Fasting on the Reduction of PASI Score, in Moderate-To-Severe Psoriatic Patients: A Real-Life Multicenter Study. Nutrients. 2019;11(2):277. Published 2019 Jan 27. doi:10.3390/nu11020277

9. Shi Z, Wu X, Santos Rocha C, et al. Short-Term Western Diet Intake Promotes IL-23-Mediated Skin and Joint Inflammation Accompanied by Changes to the Gut Microbiota in Mice. J Invest Dermatol. 2021;141(7):1780-1791. doi:10.1016/j.jid.2020.11.032

10. Shi Z. Gut Microbiota: An Important Link between Western Diet and Chronic Diseases. Nutrients. 2019;11(10):2287. Published 2019 Sep 24. doi:10.3390/nu11102287

11. Pona A, Haidari W, Kolli SS, Feldman SR. Diet and psoriasis. Dermatol Online J. 2019;25(2):13030/qt1p37435s. Published 2019 Feb 15.

12. Elmets CA, Korman NJ, Prater EF, et al. Joint AAD-NPF Guidelines of care for the management and treatment of psoriasis with topical therapy and alternative medicine modalities for psoriasis severity measures. J Am Acad Dermatol. 2021;84(2):432-470. doi:10.1016/j.jaad.2020.07.087

13. Wu AG, Weinberg JM. Correction: The Impact of Diet on Psoriasis. Cutis. 2019;104(4):241.

14. Ambroszkiewicz J, Chełchowska M, Rowicka G, Klemarczyk W, Strucinska M, Gajewska J. Anti-Inflammatory and Pro-Inflammatory Adipokine Profiles in Children on Vegetarian and Omnivorous Diets. Nutrients. 2018;10(9):1241. Published 2018 Sep 6. doi:10.3390/nu1009124

15. Ruiyang B, Panayi A, Ruifang W, Peng Z, Siqi F. Adiponectin in psoriasis and its comorbidities: a review. Lipids Health Dis. 2021;20(1):87. Published 2021 Aug 9. doi:10.1186/s12944-021-01510-z

16. U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov.

17. Elmets CA, Leonardi CL, Davis DMR, et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with awareness and attention to comorbidities. J Am Acad Dermatol. 2019;80(4):1073-1113. doi:10.1016/j.jaad.2018.11.058

Work with a Patient Navigator

The NPF Patient Navigation Center (PNC) provides assistance to anyone impacted by psoriatic disease, including families and caregivers. Information provided by the PNC is for educational use only and does not replace medical care or advice.

You can reach our navigators by email and phone Monday-Friday 7:30 a.m. - 4:30 p.m. PST.

Email: education@psoriasis.org

Call: 1-800-723-9166 (option 1)

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