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Mayo Clinic Health Letter

Reliable Information for a Healthier Life

The made-for-you Mediterranean diet

Simple swaps to adapt this eating approach for your needs

The Mediterranean diet emphasizes the traditional foods and cooking methods used in Spain, Italy, Greece, Morocco, Tunisia and other countries surrounding the Mediterranean Sea. Research supports the health benefits of the Mediterranean diet more than those of any other way of eating.

In particular, studies have linked it with a reduced risk of many health conditions, including:

- Heart disease.
- Type 2 diabetes.
- Dementia.
- Some cancers.
- Obesity.
- High blood pressure.
- Undesirable cholesterol levels.

Despite those health benefits, some people assume that the gap between the Mediterranean diet and their own dietary needs and preferences is as vast as the Atlantic Ocean.

Do you see the Mediterranean diet as a no-go because you don't like olives, anchovies or other foods typically eaten in Mediterranean countries? Do you have sticker shock whenever you check the price tag on a bottle of olive oil or pound of shrimp? Do you follow a cultural diet with a unique set of foods that differs from what people typically eat in the Mediterranean?

If so, know that those obstacles can be overcome, says Tara Schmidt, M.Ed., RDN, LD, lead dietitian with The Mayo Clinic Diet, a weight-loss program that includes a Mediterranean meal plan. "You can reap the health benefits of the Mediterranean diet while still eating foods you prefer, that fit into your culture and that make sense for your wallet," she says.

INSIDE: Low back pain while driving | Managing end-stage kidney disease | Protein powders | Hives | Red light therapy

The power of personalization

Personalization allows you to adapt the Mediterranean diet to your preferred way of eating. To create a made-for-you Mediterranean diet plan, emphasize the diet's broader food categories over the individual foods within those categories, Schmidt says.

"You can always switch within a food group," says Schmidt. "If you don't like broccoli, swap in any other nonstarchy vegetable. Similarly, if calamari isn't your thing, tilapia or shrimp can work too."

With this emphasis on food groups, a good basis for going Mediterranean is to aim for these essential categories daily:

- 2+ servings of fruit. One serving equals a medium piece of whole fruit or 1 cup of chopped fruit.
- 4+ servings of vegetables. One serving equals 2 cups of leafy produce, 1 cup of raw nonleafy vegetables or 1/2 cup of cooked vegetables.

Each week, also include these healthy protein sources:

- 2 to 3 servings of fish or shellfish. One serving equals 3 ounces.
- 4 servings of raw, unsalted nuts. One serving is 1/4 cup.

For variety or preference, other healthy protein options to work into your week might include lean poultry, beans, legumes and eggs.

Choose whole grains over refined grains, aiming for at least half of your intake to come from minimally processed options. Replace saturated fats — butter, coconut oil, high-fat dairy products — with unsaturated fats such as olive oil or cold-pressed canola oil. Limit red meat and added sugars.

Easy Mediterranean diet swaps

To personalize the Mediterranean diet for your preferences, culture and budget, use the chart on page 3. The chart was created by Jen Welper, Mayo Clinic's executive chef. ■

RECIPE: FRUITY TOAST WITH RICOTTA COMPOTE

Bread and crackers provide convenient vehicles for the fruit, vegetables and whole grains emphasized by the Mediterranean diet. This version uses whole-wheat bread, creamy ricotta, berries and walnuts.

To adapt the recipe for your culture or budget, substitute any cracker or bread for the base, such as dense Scandinavian rye, half a Mexican bolillo roll or whole-grain flatbread. Then, swap your favorite sliced fruit for the berries and any chopped nut or seeds for the walnuts. You also can create a savory option using smashed avocado, pesto, tuna salad, eggplant dip or bean paste as the base. Then top with shredded cabbage, sprouts, microgreens or any sliced veggie of your choice. If you're on a budget, serve with brewed coffee and milk instead of the latte.

Ingredients

3/4 cup frozen berries, any type
5 tablespoons part-skim ricotta cheese
1 slice whole-wheat bread
4 walnuts, chopped, or other chopped nuts
Latte, plain, fat-free milk

Directions

1. In a microwavable bowl, add the berries. Cover and heat briefly in microwave at medium power for 30 seconds.
2. In a small bowl, add berries and juices to ricotta and mix gently.
3. Toast bread and spread with ricotta berry compote. Sprinkle with walnuts to serve.
4. Follow with a small takeout or homemade latte.

Nutrition analysis per serving

396 calories, 16.9 g total fat (6.9 g saturated fat), 40.3 mg cholesterol, 318 mg sodium, 42.3 g total carbohydrate (6.7 g dietary fiber, 20 g total sugars, 0 g added sugars), 21.8 g protein

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PERSONALIZE YOUR MEDITERRANEAN DIET

	Mediterranean	Asian	Mexican	Standard American	Middle Eastern	Budget
Veggie	Artichoke, kale, spinach, tomato, zucchini	Bok choy, cabbage, carrot, green onion	Chile pepper, corn, jicama, onion, tomato	Broccoli, carrot, lettuce, tomato	Carrot, cucumber, eggplant, tomato	Carrot, zucchini
Fruit	Apple, fig, grape, olive	Banana, mandarin, mango, pear	Coconut, guava, mango, papaya, pineapple	Apple, banana, clementine	Apple, date, fig, pomegranate	Apple, banana, frozen fruit
Fish	Anchovy, calamari, sardine, shrimp, tuna	Crab, shrimp, tuna	Calamari, shrimp, tilapia	Salmon, shrimp, tuna	Calamari, crab, shrimp, snapper	Sardine, tuna
Whole grains	Barley, bulgur wheat	Barley, buckwheat, millet, rice	Amaranth, barley, corn	Oats, quinoa, rice, whole wheat	Barley, bulgur wheat, rice	Oats
Nuts and seeds	Almonds, pine nuts, walnuts	Cashews, peanuts, sesame	Chia, pumpkin, sesame	Peanuts, wild rice	Pistachios, sesame	Peanuts
Oils	Olive	Peanut, sesame	Avocado	Canola	Olive	Canola
Beans and legumes	Cannellini, kidney	Chickpea, edamame, mung	Black, pinto	Black, kidney, pinto	Chickpea, fava	Any dried bean or lentil

HEALTH TIPS

RELIEVING LOW BACK PAIN WHILE DRIVING

It's an all-too-familiar feeling when a long road trip or commute triggers pain in the lower spine. More than 80% of people experience back pain in their lifetimes, with 70% of that pain being low back pain. According to Cole Cheney, M.D., a specialist in pain medicine and spine care with Mayo Clinic Health System, many people with back pain describe car travel as a major challenge. Instead of avoiding travel because of pain, try to:

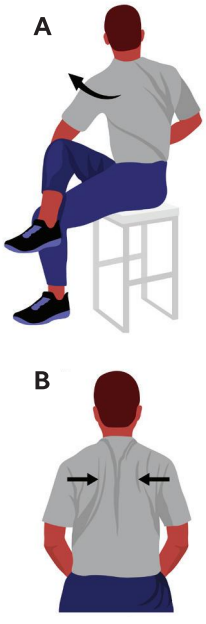
- *Pull over* — Plan extra time to take breaks approximately every 30 to 60 minutes. Get out, stand, stretch and walk around to help reduce stiffness and improve circulation.
- *Stay hydrated* — Avoid long periods without drinking water. Staying hydrated can help reduce the risk of muscle tightening and cramps. Stops for any related bathroom breaks give you a chance to get out of the car and move or stretch.
- *Check your posture* — In one study of drivers and lower back pain, more than 54% of people over the age of 40 had been driving with posture that causes or worsens pain. Avoid slouching or leaning forward. Placing a cushion or rolled-up towel at the curve of your low back with about 3/4 inch to 1 1/2 inches of support can help. Reclining your seat slightly can relieve some pressure on your spine.
- *Turn up the heat* — Heated seats have shown to decrease periods of low back pain during long drives. While applying ice can help ease acute pain, save this for after your drive. Using ice in the car may be messy and can create a cold burn if left on too long.

Some people benefit from special stretches or back braces to alleviate pain while driving. Discuss these options with your healthcare team. Your team may refer you to a specialist such as a physiatrist, physical therapist or occupational therapist. It might take a few visits to find what works best for you. ■

ROADSIDE-FRIENDLY STRETCHES

Seated lower back rotational stretch (A) — While sitting, cross your right leg over your left leg. Bracing your left elbow against the outside of your right knee, twist and stretch to the right side. Hold for 10 seconds. Repeat on the opposite side. Do this stretch 3 to 5 times on each side.

Shoulder blade squeeze (B) — While sitting up straight, pull your shoulder blades together. Hold for five seconds and then relax. Do this 3 to 5 times.



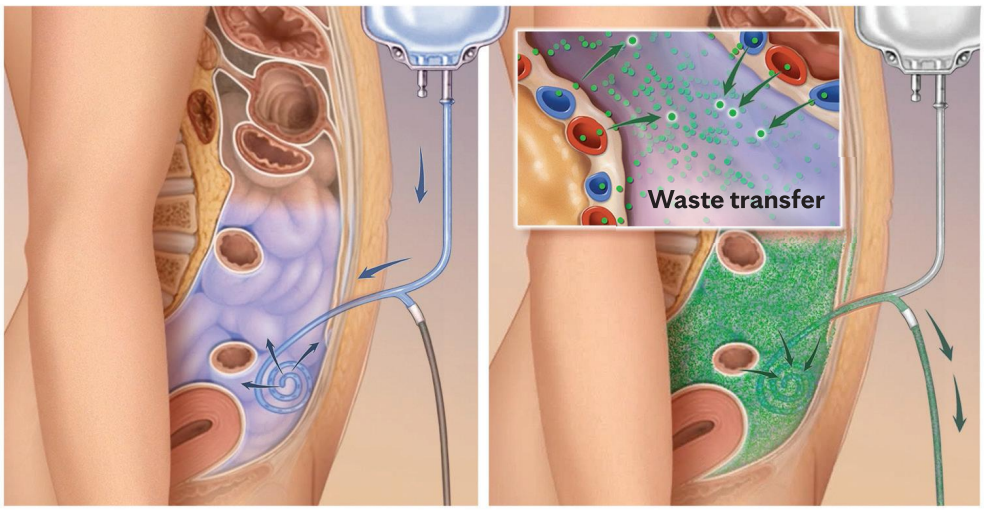
Managing end-stage kidney disease

Treatment and advancements

End-stage renal disease, also known as end-stage kidney disease or kidney failure, is the fifth and final stage of chronic kidney disease. Chronic kidney disease is reduced kidney function, most commonly caused by diabetes and uncontrolled high blood pressure. Recent treatment advances have greatly enhanced both quality of life and flexibility for people with end-stage renal disease.

The kidneys filter excess fluid and waste from the body. Out of the 30 to 50 gallons of blood that flow through the kidneys daily, about 1 to 2 quarts of excess fluids and waste are eliminated in the urine. In addition to filtering blood, the kidneys produce hormones that help regulate blood pressure, set the body's calcium levels and make red blood cells that transport oxygen through the body.

When the kidneys lose their ability to filter, wastes and fluids build up. You may not notice early chronic kidney disease, but symptoms of end-stage renal disease include nausea, vomiting, weakness, changes in urination, swelling, chest pain, headaches, cramping, and a metallic taste in the mouth. At that point, you'll likely need to replace kidney function — through either dialysis or a kidney transplant.



In peritoneal dialysis, a catheter inserted into the abdomen delivers cleansing fluid into the abdominal cavity. The fluid absorbs blood waste through the peritoneum, the natural membrane that lines the cavity, and then is transferred out of the body.

Dialysis unplugged

Dialysis helps perform the filtering functions of your kidneys when they are no longer able to do so on their own. There are two main types of dialysis: hemodialysis and peritoneal dialysis. Both can be done in a hospital, at a dialysis center or at home, depending on your situation.

Hemodialysis

Hemodialysis is the most common type of dialysis in the U.S. During hemodialysis, a dialysis machine is connected to veins in your arm to filter wastes, reduce excess fluid and balance electrolytes in your blood. In-center hemodialysis is usually required three times a week for 3 to 5 hours each session.

Home dialysis may be an option. Two important factors for doing hemodialysis at home are having a health center that supports connected technology and having someone to help you. Home dialysis is usually done in shorter, more frequent sessions — 4 to 6 days a week for 2 to 4 hours at a time.

Simplified machines with better device usability, including intuitive touch-screen interfaces and step-by-step instructions, have made home dialysis easier and less intimidating to learn. Home dialysis has been linked to increased well-being, better sleep, fewer headaches and less nausea. It also is linked to better cardiovascular health, bone health and fluid management.

Whether at home or in center, you can nap, read, watch TV or sometimes even sleep at night while having hemodialysis. Your healthcare team monitors your treatment with regular blood tests to check that the dialysis is removing enough waste and keeping chemistries balanced. One of the most impactful changes over the past decade has been the ability to transmit treatment data in real time to a healthcare team. This reduces the burden on you and allows your healthcare team to identify potential issues quickly.

Following a certain diet helps ensure dialysis success. You may be referred to a registered dietitian. A diet that's easier on your kidneys may limit sodium, potassium and phosphorus since your kidneys can no longer optimally balance the minerals in your blood. While it's important to get enough protein while on dialysis, too much protein can cause the buildup of waste products. Your healthcare team can help determine what amount of protein is right for you based on your size and overall health. See our June 2025 issue for information about a healthy diet for kidney disease.

Peritoneal dialysis

In peritoneal dialysis, a catheter tube inserted into the abdomen delivers cleansing fluid into the abdominal cavity. The fluid absorbs blood waste through the peritoneum, the natural membrane that lines the cavity. From there the fluid flows out and is discarded. This cycle repeats several times each session.

This dialysis can be done at home by yourself — with some skilled effort — or with caregiver support. Cycles usually are done overnight using an automated machine. Or they can be done manually several times throughout the day.

A benefit of peritoneal dialysis compared with hemodialysis is more flexibility. It can be done at work, while traveling or at home, even if you live far from a health center. It also is a better option if you struggle with needles or some of the side effects of hemodialysis, and it's generally more cost-effective.

Transplant pathways

The kidney is the most commonly transplanted organ, and 85% of people on the U.S. transplant waiting list need one. Only one donated kidney is needed to replace two failed kidneys. A preemptive kidney transplant is a kidney transplant that occurs before dialysis begins. This is considered the best option for end-stage renal disease. However, only 2.5% of all kidney transplants in the U.S. are preemptive. Most kidney transplants are done in people who are on dialysis. After a successful kidney transplant, you should no longer need dialysis.

Compared with dialysis, a transplant can provide you with a better quality of life, lower risk of premature death and fewer dietary restrictions. However, advanced age, dementia, severe heart disease, recently treated or current cancer, obesity, and other factors may prevent you from being eligible to safely undergo the procedure. Some forms of kidney disease may recur after a transplant, or the body may reject the donor organ. Following post-transplant care instructions and taking anti-rejection medications can increase your chances of a successful transplant.

Transplanting organs from other species — primarily pigs — is showing promise for the near future. This is known as xenotransplantation. In February 2025, the Food and Drug Administration granted approval to two companies to conduct clinical trials in humans using genetically modified pig kidneys. Artificial kidney development also is progressing. While not yet ready for widespread use, new technology could become a viable option for kidney replacement in the coming years. ■

NEWS AND OUR VIEWS

ED DRUGS MAY PROTECT THE HEART, BRAIN

Tadalafil (Cialis) and sildenafil (Viagra) are best known for treating erectile dysfunction (ED). They're also prescribed for urinary symptoms linked to an enlarged prostate. But these drugs may offer more than symptom relief. They also may lower the risk of serious conditions, such as heart attack, stroke and dementia.

Tadalafil and sildenafil are PDE-5 inhibitors. They boost levels of cGMP, a molecule that increases smooth muscle relaxation. This allows blood vessels to relax and improves blood flow while also reducing oxidative stress and inflammation. Because the drugs can cross into the brain, research suggests that they may support cognitive function.

The potential benefits were recently highlighted in a large study of more than 1.6 million men over age 40 with ED or urinary symptoms. The study, published in *The American Journal of Medicine*, found that men taking tadalafil or sildenafil may experience additional health benefits. Men who took either drug had lower risks of stroke, dementia, heart attack, blood clots and death from any cause over a span of three years compared with men not taking the drugs. The risk reductions were greater for men taking tadalafil, especially for those taking the drug daily to relieve urinary symptoms. But men who took either drug only as needed for ED still appeared to have a significantly reduced risk.

The results are encouraging but don't prove that the medications directly cause these effects. More research is needed. Still, if you're a candidate for one of these drugs, discuss the potential broader benefits with your healthcare team. And remember: Lifestyle factors such as regular physical activity, a healthy diet and good sleep remain the pillars of heart and brain health. ■

GET THE RSV VACCINE — IT WORKS

When a new vaccine is developed, there's often skepticism. This was true for the respiratory syncytial virus (RSV) vaccine that was approved for older adults in 2023. But research done over the first two years has been overwhelmingly positive.

A 2024 study in *The Lancet* looked at data from the first season the vaccine was available. Researchers found it was 80% effective in reducing RSV-associated hospitalizations and 77% effective against RSV-associated emergency department visits in adults age 60 and older with healthy immune systems. For those with weakened immune systems, the effectiveness against RSV hospitalization was still high, at 73%.

New data from *JAMA Network Open* showed similar results, finding vaccine effectiveness of about 75% against acute respiratory infection, urgent care or emergency visits, and hospitalizations in people with healthy immune systems. The rates were lower but still significant in those with weakened immune systems.

The New England Journal of Medicine published positive results for the vaccine's continued effectiveness. Although somewhat lower than in the initial year, the vaccine maintained almost 78% effectiveness against more-severe RSV illness in its second season.

Before the vaccine, RSV caused an estimated 5.2 million respiratory infections, 470,000 hospitalizations and 33,000 in-hospital deaths among older adults a year in high-income countries such as the U.S. Mayo Clinic experts encourage older adults who haven't already received an RSV vaccine to ask about it at upcoming healthcare visits. The Centers for Disease Control and Prevention recommends that everyone age 75 and older receive a one-time RSV vaccine. It also is recommended for adults ages 50 to 74 who are at increased risk of severe RSV. This includes adults with weakened immune systems, those with chronic heart or lung disease, and those who live in long-term care facilities. ■

Protein powders

The scoop on benefits and selection

Protein powder is not just for bodybuilders and athletes. Protein is an essential nutrient that can help anyone maintain the muscles needed for an active life. Despite the body's basic need for protein, almost half of people over age 70 don't get the amount recommended to help prevent age-related loss of muscle mass, known as sarcopenia.

The recommended daily dose of protein for people 65 and older is at least 1.2 grams of protein for each kilogram of body weight. So someone who weighs about 160 pounds (73 kilograms) would need to consume roughly 87 grams of protein a day.

This may seem like a lot. It may be more than you're used to eating, especially if you are eating fewer animal-based foods or you simply don't have the appetite you once did. For some, dental issues or trouble swallowing may prevent being able to consume protein-rich foods such as meats or hard-boiled eggs.

Another option for getting more protein in your diet is to supplement with protein powders. These powders usually have 20 to 25 grams of protein in a serving. Spacing out the servings over breakfast, lunch and dinner can offer a convenient and time-efficient option for meeting your daily protein goal. However, with protein powders, there can be confusion about which one to select or whether or not they are safe.

Label breakdown

When shopping for protein powder supplements, look for a 100% protein product with a list of ingredients that includes the nine essential amino acids: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. Avoid products labeled as "mass gainers" or sports-performance blends. These can contain significant amounts of added sugars or calories that may not be beneficial for the general population. Also, be mindful that some powders use artificial sweeteners such as erythritol and sorbitol, which can cause bloating, gas and other digestive issues.

Don't count collagen powder as a good protein source. While there is some evidence that collagen could help support joints, collagen powder lacks the essential amino acids that help with muscle protein synthesis and prevention of sarcopenia.

Some protein powders come in an unsweetened flavor, making them versatile for adding to your favorite breakfast smoothie, oatmeal or even water. Protein powders are made from various sources, including soy, hemp, whey, peas, eggs and brown rice. Whey, pea, soy and egg protein powders provide high-quality protein that is easily digestible and can promote muscle recovery and maintenance of muscle over time.

Egg whites are used to produce egg-based protein powder, while whey and casein are the main proteins in dairy-based protein powder. This makes both animal-based products. Powders from soy, hemp, pea and rice are all made from plants and can offer vegetarian-friendly versions. Research has shown that there can be nutritional differences in the quality and, therefore, physical benefits among different protein sources. Plant-based sources of protein powder may require people to consume roughly 20% more total protein to compensate for the very low levels of key amino acids. Older adults can get benefits from plant-based proteins, but they may need to eat higher amounts of these proteins daily.

Unfortunately, there are some reasons for concern about protein powders. According to research, nearly 40% of protein powder supplements tested positive for heavy metals such as arsenic and cadmium. Plant-based protein powders tend to have a higher risk of these metals. This is why it's critical to buy products that have been tested and carry a seal of approval from third-party testing organizations such as the U.S. Pharmacopeia (USP), Banned Substances Control Group (BSCG), Informed Sport or NSF.

Weight gain and loss

Powders that are marketed for weight loss or weight gain can include non-protein ingredients that add calories, such as fats and fillers. Depending on your needs and physical activity level, you may not want a high-calorie protein powder.

Those trying to lose weight, specifically body fat, may require a slightly higher daily protein intake to prevent also losing muscle. A daily intake of 1.6 grams per kilogram of body weight can help minimize muscle loss. Additionally, protein can help curb hunger cravings during a weight-loss phase and help with appetite control. Moderate to high protein intakes — 1.2 to 1.8 grams per kilogram in a day — are safe without negative effects on the kidneys or bones. ■

MIXING IT UP: TIPS FROM A MAYO CLINIC DIETITIAN

You have protein powder in your pantry — now what? Consider adding it to your diet in numerous ways:

- Mix a scoop into hot oatmeal with milk and berries or add to overnight oats with banana or a little chocolate.
- Build it into a smoothie. No matter if you're into tropical, veggie-filled or something that resembles a milkshake, smoothies are one of the best ways to pump up the protein. They also mask the texture if you're sensitive to it.
- Add a small scoop to your favorite yogurt. Top with fruit, nuts or seeds to make it resemble a meal.
- Switch out your favorite coffee creamer for protein powder mixed with milk.

Hives

Containing the itch

If you've experienced a sudden outbreak of itchy, raised bumps or patches on your skin, you're likely familiar with hives, also called urticaria. About 20% of people get hives at some point. Hives can be alarming, but they're not contagious, and they usually aren't serious. Of course, this doesn't make them any less itchy or uncomfortable.

Hives often resolve on their own. When they don't, they often can be managed with a combination of nonprescription medications and lifestyle measures. Some hives may require stronger treatments or even emergency care in some situations.

The science behind hives

With hives, a skin reaction causes raised patches to appear suddenly. These welts are often very itchy and can vary in size, sometimes joining together to form larger areas of swelling. On white skin, hives typically appear pink or red. On Black or brown skin, they may appear slightly lighter or darker than your natural skin color.

The underlying cause of hives is a release of histamine and other chemicals from immune cells in the skin, called mast cells. Histamine causes nearby blood vessels to leak fluid, leading to the swelling and characteristic color changes of hives. The process can be triggered by:

- Foods such as fish, shellfish, peanuts, tree nuts, soy, eggs, milk and additives such as certain dyes.
- Medications such as nonsteroidal anti-inflammatory medications (NSAIDs), antibiotics and angiotensin-converting enzyme (ACE) inhibitors.
- Insect stings or bites.
- Infections, including strep throat, COVID-19, colds and urinary tract infections.
- Environmental or physical triggers such as sunlight, pressure, cold, heat, exposure to certain chemicals or scratching the skin.

Most times, hives are short-lived. These are called acute hives. An individual hive usually disappears within 24 hours, but new ones may continue to appear. The outbreak typically resolves within a few days to a few weeks.

When hives persist for six weeks or longer, they're considered chronic. Chronic hives may last for months or even years, and most of the time these hives are not linked to classic triggers. Research is ongoing to help understand the immune mechanism behind this type. Hives can be a sign of several different autoimmune or autoinflammatory conditions.

Finding comfort

Hives often go away without treatment. When you know the cause, avoiding the trigger is the best prevention. However, if you're uncomfortable or the hives don't seem to be resolving, there are several management strategies.

Antihistamines

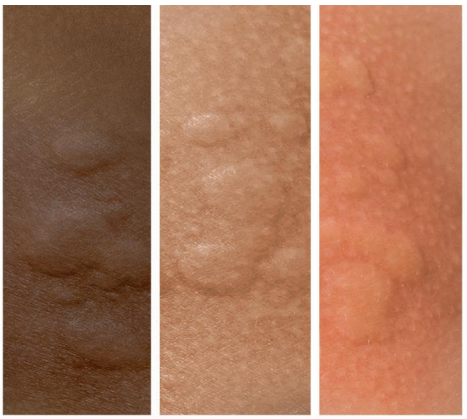
Nonsedating antihistamines — including cetirizine (Zyrtec), loratadine (Claritin) or fexofenadine (Allegra) — are the first line treatment. You take one pill daily. These drugs block histamine and relieve itching and swelling. In adults, these antihistamines are generally safe and are preferred over older, sedating antihistamines, such as diphenhydramine (Benadryl), which have significant risks such as confusion, sedation and falls.

When hives persist, your healthcare team may advise you to increase the dose or add other medications. For severe or chronic hives, that may involve options such as omalizumab (Xolair), short-term corticosteroids or other immunosuppressive drugs.

Home remedies and lifestyle measures

You can take several steps at home to ease discomfort and reduce your risk of flare-ups:

- *Use cool compresses* — Applying a cool, damp cloth to the affected area can soothe itching.
- *Wear loose clothing* — Soft, loose clothes can limit skin irritation.



On Black or brown skin, hives may appear slightly lighter or darker than your natural skin color. On white skin, hives typically appear pink or red.

- *Avoid hot showers* — Heat can worsen itching and swelling.
- *Manage stress* — Stress can trigger or worsen hives. Relaxation techniques such as meditation may help.
- *Resist the urge to scratch* — Scratching can make irritation worse and lead to infection. Instead, gently tap or apply cool compresses.
- *Watch what pain relievers you use* — Drugs such as aspirin and ibuprofen are common triggers. If you have pain, take acetaminophen (Tylenol, others) instead.

To help your care team identify potential triggers, try tracking your diet, activities and exposures.

Hives can be uncomfortable and unpredictable, but with the right approach, it may be possible to find relief and control. If your hives last more than a few days or recur frequently, consult your care team. There may be an underlying condition that's causing your skin issue.

Sometimes, hives can accompany deeper swelling under the skin, called angioedema. This swelling often occurs around the eyes, lips, hands or feet. If you have swelling of the face, tongue or throat or you have trouble breathing, dizziness or fainting, seek emergency medical care. This can signal that a life-threatening allergic reaction called anaphylaxis is developing. ■

Second opinion

Q It seems like everyone, from my granddaughters to my oldest friends, are buying LED face masks. What are the actual benefits of red light therapy, and is it really worth trying?

A Colors on the visible light spectrum all contain different wavelengths. Certain colors, such as red — when concentrated — can potentially benefit the skin. There are ever-expanding reasons that red light is being used, including for treating acne, warts, psoriasis and scars. Red light also may help with regenerating collagen, decreasing muscle pain and reducing inflammation of the skin. Some dermatology offices now offer red light therapy as a cosmetic treatment for wrinkles, age spots or other skin concerns. In a medical office, a chemical may be applied to the skin first to increase the light's effect.

However, according to Mayo Clinic dermatologists, the types of red light therapy you can buy for home use — including LED face masks or face wands — are not equal to those used in office procedures and unlikely to be worth the expense for the result you get. Red light therapy used in a medical setting is stronger than at-home red light units. There, a dermatologist can clarify your skin concerns and goals and recommend appropriate, targeted treatment.

Home masks range in price from hundreds to thousands of dollars, and their effectiveness is mild at best. Results you might see likely depend on your reason for using the device. Age, skin conditions and frequency of use can all affect the changes you may notice.

While generally considered safe if approved by the Food and Drug Administration, most of these products are not as carefully regulated as office medical equipment. Always follow the product instructions, especially because overuse can cause redness or irritation. It's particularly important to protect your eyes during red light treatment with specialized goggles or glasses. If you are sensitive to light, avoid red light products. Be aware of medicines that could make you photosensitive, including vitamin C serums or retinols. Also be cautious if you have a sunburn or plan to be out in the sun. ■

Q I was excited to replace my bicycle seat, but since then my rides have been uncomfortable — knee pain, numbness and chafing on my backside. How can I fix this?

A It sounds like you're on the right path regarding a possible cause of your discomfort. A bicycle seat that's not the right fit for your body or isn't positioned correctly can strain joints and place excess pressure on sensitive tissue. As a result, you may experience pain in the buttocks and the area between the genitals and anus, called the perineum. You may even have pain in more distant sites, such as the knees and lower back. Chafing or "saddle sores" also are common when your bike seat isn't fitted properly.

To find the right seat, consider the type of bike you have and the type of riding you'll be doing. Try out different shapes and widths to see what feels best. Some research suggests that wider seats may be more comfortable for women because of their pelvic structure. Seats with cutouts or pressure relief channels can help reduce discomfort.

To check that your seat is at the proper height, sit on your bike, wearing the shoes or cleats you plan to use on your rides. Place your heel on the pedal at its lowest point. If the seat is at the right height, your leg should be straight. Most seats are best ridden in a level position, but some people find that tilting the seat down slightly toward the front wheel can relieve pressure.

Additional remedies for buttock discomfort include wearing high-quality padded cycling shorts and using a lubricating chamois cream on the seat to reduce friction. Stand up briefly every 10 to 15 minutes during longer rides to relieve pressure and improve circulation. Aim to keep your spine in a neutral position, and don't go too hard or too long on your rides.

There are many other tweaks that can ensure a good bike fit and relieve pain — adjustments to handlebars and seat setback, as well as modifications to your form and pedaling, to name a few. Consider asking a professional for help. Check with your local bike shop about bike-fitting services or for a recommendation. The bike shop may have more tips and offer test seats to try before committing.

For some people, underlying musculoskeletal issues can make it hard to get a good fit or cause pain when riding. If discomfort persists, consider talking to a physical therapist or sports medicine specialist familiar with cycling. Persistent pain is a sign that something needs adjustment. ■

Have a question or comment? We appreciate every letter sent to Second Opinion but cannot publish an answer to each question or respond to requests for consultation on individual medical conditions. Editorial comments can be directed to:

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