

Little evidence supports spices can relieve arthritis

Q I've read that spices can treat arthritis. Is this true? I don't know how valid the literature I read is behind this, but I often prefer natural products over taking medications. Is there any benefit in using spices and herbs? What are the risks? — **RK, Greenville**

A Obum Omerah is a Brody medical student who recently spent time with the nutrition team at ECU Family Medicine and was intrigued by this topic. Here is what he learned.

As a fourth-year medical student, I have heard several claims about how the use of spices or seasonings can act as an anti-inflammatory. Although I am always for the notion of increasing options for relief of pain and stiffness, I find that the knowledge regarding the actual benefits and risks of taking spices and herbs are not completely understood.

There are five main spices that have been researched in looking for non-medicine treatment of osteoarthritis or rheumatoid arthritis. Those include turmeric, ginger, cinnamon, cayenne pepper and garlic powder.

Before answering your question on the use of spices as an anti-inflammatory, the definition of osteoarthritis and rheumatoid arthritis is necessary. Osteoarthritis is a chronic joint condition



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where there is loss of cartilage or joint space, which causes bone-on-bone contact. This results in dull, aching pain for patients, usually of older age. Rheumatoid arthritis is an autoimmune condition that causes inflammation of the synovium (a key part of joints which make a fluid that lubricates the joints), creating a pannus formation, or abnormal growth of tissues, causing inflammation, pain and swelling. Osteoarthritis is usually monoarticular (involving one joint) while rheumatoid arthritis is usually polyarticular (involving multiple joints).

There is some emerging evidence that the spices of interest might provide something of minimal benefit for patients' self-reported pain, mobility and/or tenderness of the joint. All the information regarding the effectiveness of spices I will share is from randomized clinical trials. Discussed here will be the spice, benefit potential, dosage, duration and adverse effects. None of these have enough evidence to lead a physician to suggest using them

as the primary treatment.

■ **Ginger:** The active ingredients of ginger are gingerols and shogaols. These compounds are about 1% available in ginger powder and more concentrated in ginger extract. Research has shown that ginger may affect collagen cells in a way that may help to protect them from cartilage and bone degradation. Dosage from research suggests that 1/8 tsp to 1/3 tsp of extract for three to 12 weeks may reduce pain from knee and hip osteoarthritis. The possible adverse effects of ginger intake are mild stomach upset and unpleasant taste.

■ **Turmeric:** The active ingredient of turmeric is curcumin. It is not well absorbed on its own, so it is generally best to take it with fat. Turmeric extract contains the highest amount of the active component, up to 80-95% curcuminoids (curcumin). Dosage from research suggests that 1/3 tsp of turmeric for four weeks to four months may show improvement in joint function, measured by morning stiffness and mobility, for osteoarthritis and rheumatoid arthritis. Adverse effects of turmeric are liver injury, kidney stones, yellowing of skin, tooth staining and reducing the availability of iron in the body.

■ **Cinnamon:** There are

mainly four types of cinnamon: Mexican (*Cinnamomum zeylanicum*), Indonesian (*Cinnamomum burmanni*), Vietnamese (*Cinnamomum loureiroi*) and Chinese (*Cinnamomum aromaticum*). Cinnamaldehyde is the active ingredient of cinnamon and is readily available in the purchased spice. It has been shown to contain some anti-inflammatory properties. Dosage from research indicates that 3/4 tsp of cinnamon for eight weeks led to a significant decrease in pain scores and tender joint count in women with rheumatoid arthritis. However, the research done for this has been limited. High amounts of coumarin, particularly in Chinese cinnamon, can cause liver injury and increase risk of cancer.

■ **Garlic powder:** The active compound in garlic is allicin. Research indicates that individuals with rheumatoid arthritis who took DMARDs (disease-modifying antirheumatic drugs) and 1/3 tsp of garlic powder for eight weeks experienced decreased fatigue, pain intensity and number of tender joints. Studies suggest that garlic might protect against joint destruction and improve the side effects of rheumatoid arthritis. Garlic can cause bad breath, body odor, GI upset, dizziness, facial flushing,

bleeding and rapid pulse.

■ **Cayenne pepper:** The compound of interest in cayenne pepper is capsaicin. There has not been much research in oral capsaicin or capsaicin, though studies have been conducted regarding topical capsaicin on alleviating osteoarthritis and rheumatoid arthritis symptoms. Therefore, it currently cannot be concluded that cayenne pepper or any spice containing capsaicin can aid in anti-inflammatory relief when taken orally.

Thus, the evidence is overwhelming for these to be considered effective treatment options. Should you decide to try them, we highly recommend you not stop any medicine you are taking for arthritis and consult with your doctor about the safety of using spices and how that can affect your health or interact with other medicines you are taking.

When we use food and spices as medicine, it is important to include them routinely in our daily food plans and, unless recommended by a primary care doctor or registered dietitian nutritionist, not taken as a supplement.

Professor emerita Kathy Kolasa, a registered dietitian nutritionist and Ph.D., is an affiliate professor in the Brody School of Medicine at ECU. Contact her at kolasaka@ecu.edu.

TASTEFOOD

Peppery heat of jerk chicken recipe helps fight the cold

If you can't escape to the Caribbean this winter, then bring its spicy heat and tropical flavor to your kitchen. Jamaican jerk cuisine is a method of dry-rubbing or marinating meat in a jerk spice blend or paste packed with fresh chiles, herbs and spices. The marinade infuses flavor and tenderizes the meat, which is traditionally cooked on a grill.

Jerk seasoning is meant to be hot — very hot — which is typically achieved by adding Scotch bonnet or habanero peppers to the seasoning. If you are familiar with the Scoville scale (the measurement of the heat units of peppers), these peppers are at the top of the scale. This recipe tames the heat



LINDA BALSLEV

won't self-combust. Just remember to carefully seed any peppers that pack heat with gloved hands.

The list of spices and aromatics in this jerk paste is lengthy, but the method is simple. Gather the ingredients and add them all at once to a food processor. Blend to a paste while taking care not to inhale any peppery air that may waft up from the feed tube

a bit by substituting jalapeno or serrano peppers so that you and your dinner companions

while processing. Then slather the paste all over the chicken and let it marinate, ideally overnight.

Jerk chicken is typically cooked on a grill (it's from the Caribbean, after all). If grilling is not an option (for most of us; it's not the Caribbean, after all), then this recipe provides an option to oven roast.

JERK CHICKEN

Active Time: 15 minutes

Total Time: 1 hour plus marinating time

Yield: Serves 6 to 8

Ingredients:

■ 8 whole chicken legs

Marinade:

■ 4 garlic cloves, peeled

■ 3 scallions, chopped

■ 1 medium yellow onion, chopped

■ 2 to 3 jalapeno or



serrano chiles, stemmed (seeded optional)

■ 1 (2-inch) knob ginger, peeled, chopped

■ 2 tablespoons vegetable oil

■ 2 tablespoons fresh lime juice

■ 2 tablespoons soy sauce or tamari

■ 2 tablespoons packed dark brown sugar

■ 1 tablespoon fresh thyme leaves

■ 2 teaspoons ground allspice

■ 2 teaspoons freshly ground black pepper

■ 2 teaspoons kosher salt

■ 1 teaspoon ground coriander

■ 1/2 teaspoon ground cinnamon

Preparation:

Place the marinade ingredients in the bowl of a food processor and process to form a paste.

Make small incisions all over the chicken legs. Arrange the chicken in one layer in a large baking dish. Rub the marinade all over the chicken, under the skin and in the incisions. Cover with plastic wrap and refrigerate for at least 3 hours or preferably overnight. Remove from the refrigerator 30 minutes before grilling.

If using a grill, arrange the chicken on the grates over indirect medium heat. Cook until thoroughly cooked through, about 40 minutes, depending on the size of the legs, turning once or twice. During the last few minutes of cooking, move the chicken to direct heat to char the skin.

If using an oven, roast in a 375-degree oven until thoroughly cooked through, about 40 minutes, depending on the size of the legs. During the last few minutes of cooking, turn on the broiler to char the skin.

Serve garnished with chopped scallions and lime wedges.

Lynda Balslev is an award-winning writer, cookbook author, and recipe developer based in northern California. Visit TasteFood at TasteFood-blog.com.

ASK THE DOCTORS

Walking can lessen depression

Q I saw on TV about a study that says walking helps if you are depressed. I would like to know how the research was conducted and how this conclusion was reached. I get to feeling low every few months and would be happy if taking up walking could break the cycle.

A You are referring to research that found that the farther you walk on a regular basis, the less likely you are to feel depressed. The study appeared last year in Jama Network Open, which is a peer-reviewed medical journal published by the American Medical Association. The study was conducted by researchers in universities located in Spain, Chile and Uruguay. According to the findings, the mental health benefits of walking became apparent when study participants took as few as 1,000 steps per day. This correlated to a 10% decrease in depression. They reached a peak effect among participants who took more than 7,500 steps per day, who were 42% less likely to experience the symptoms of depression.

To arrive at this conclusion, the researchers conducted what is known as a meta-analysis. This entails combining information gathered from multiple existing studies, analyzing the expanded data set and then drawing additional or new conclusions.

In this case, the researchers looked at information collected from more than 96,000 adults who had participated in 33 different studies. Each study focused on the effects of physical activity and included how many steps the participants took each day. Step counts were measured with the use of various types of fitness trackers, pedometers and smartphones. In selecting the studies to include in their new data set, the researchers chose only those that



EVE GLAZIER



ELIZABETH KO

addressed the possible effects of daily walking on the symptoms of depression.

This isn't the first time that regular physical activity has been linked to improved mental and emotional health. A significant body of research has found that people who

exercise regularly experience less anxiety, have better sleep, have a better self-image and have improved mood and concentration. This is due to the release of a range of neurochemicals and hormones, including endorphins and serotonin, which are produced when the body exercises. Regular exercise also bolsters the health and diversity of the gut microbiome, which plays an important role in mental and emotional health.

This walking study is particularly interesting because it focuses on a single activity and quantifies the expected improvements. The data show that walking even short distances benefits mental health. It is also important to note that additional factors play a role in how each person responds to daily walking. These include age, sex, physical health, social connections and genetic risk of mental health disorders. In this study, none of the participants had a diagnosis of major depression. That means the results may not apply to people who are already living with a depression disorder.

As with any new exercise, it's a good idea to start small and build slowly. By choosing reasonable goals and making the activity enjoyable, you increase the likelihood of making walking a permanent part of your life.

Eve Glazier, M.D., MBA, is an internist and associate professor of medicine at UCLA Health. **Elizabeth Ko**, M.D., is an internist and assistant professor of medicine at UCLA Health.

Please recycle this newspaper.



PUBLIC MEETING FOR PROPOSED IMPROVEMENTS TO 15TH STREET BETWEEN U.S. 17 BUSINESS AND U.S. 264 WASHINGTON, BEAUFORT COUNTY

STIP NO: U-5860



WASHINGTON - The N.C. Department of Transportation will host a public meeting to provide information on the proposed improvements to 15th Street between U.S. 17 Business (Carolina Avenue) and U.S. 264 (Pactolus Highway) in Washington, Beaufort County.

Thursday, Feb. 6, 2025
6 to 8 p.m.

Washington 15th Street Church of God
336 E. 15th Street
Washington, NC

To reduce congestion during peak hours, improve safety and provide a complete street for all users, the project proposes to provide four 11-foot travel lanes a 17.5-foot-wide concrete median, curb and gutter, a 5-foot sidewalk on the north side, and a 10-foot multi-use path on the south side of 15th Street.

NCDOT representatives will be available in an informal, open house-style setting to answer questions and gather public input regarding the proposed projects. The opportunity to submit written comments or questions will be provided and is encouraged. Citizens may attend at any time between 6 and 8 p.m. There will be no formal presentation. Project maps and other information can be found on the project website: <https://publicinput.com/15th-street-improvements>

For more information the NCDOT Project Manager Allison Thorburn by email: ext-aemcauliffe@ncdot.gov, phone 984-302-3434 or mail at the address below.

By Mail: Allison Thorburn
NCDOT Highway Division 2
1037 W.H. Smith Boulevard
Greenville, NC 27834

NCDOT will provide auxiliary aids and services under the Americans with Disabilities Act for people who want to participate in this public open house. Anyone requiring special services should contact Diane Wilson at pdwilson1@ncdot.gov or 919-707-6073 as soon as possible so arrangements can be made.

Persons who do not speak English, or have a limited ability to read, speak or understand English, may receive interpretive services upon request prior to the meeting by calling 1-800-481-6494.

Aquellas personas que no hablan inglés, o tienen limitaciones para leer, hablar o entender inglés, podrían recibir servicios de interpretación si los solicitan antes de la reunión llamando al 1-800-481-6494.