The onset of cold weather or rain can be detected by joint pain—just ask a patient suffering from arthritis. Can medical science explain this mystery?

If you’ve ever had an eccentric family member predict the rain simply by the pain of an arthritic knee, you’re probably not alone. As far as health-related myths go, there may not be one more infamous than the supposed connection between arthritic symptoms and the weather conditions.

But from a scientific view, how does the theory hold up? According to Dr. James Fant, associate professor of medicine and director of rheumatology at the School of Medicine’s University Specialty Clinics, there appears to be a definite connection. “It’s one of the most common questions that patients will ask,” said Fant. “At first I doubted it because there was not a lot of scientific evidence to support the correlation between arthritic symptoms and the weather. But I’ve been practicing for nearly 20 years, and I’ve heard it so often from so many patients that I know there’s something to it.”

Although it remains a vague science, Fant explains the connection in simple terms. “I may not be able to explain the exact source—whether its humidity or differences in the barometric pressure and how they translate into causing
Change your mind.

Change the way you eat.

The key to eating healthy and long-term weight loss is not just about changing what’s on your plate; it’s also about changing your entire lifestyle.

Lose weight. Eat healthier. As far as New Year’s resolutions go, these are probably the most popular—and most broken—promises we make to ourselves. The simple truth is that most of us want to look and feel better. But with the endless and, most typically, conflicting diet plans, meal schemes, and nutritional advice on the market, how do we really make healthy diet changes that can last a lifetime?

According to Alison Hanna, registered dietitian with the University Specialty Clinics, most fail diet plans are not only temporary fixes, but they are exclusionary ones. “Most of the media-hyped diets you hear about have a narrow focus and temporary fixes, but are also exclusionary ones. “Most of the meal schemes, and nutritional advice on the market, how do we deal with the endless and, most typically, conflicting diet plans,” Hanna said. “The key to eating healthy and long-term weight loss is not just about changing what’s on your plate; it’s also about changing your entire lifestyle.”

Joyce Dunn went from a size 20 to a 12, while her husband, Al, reduced his waist size from 38” to 33”.

“People are afraid of having to make big behavioral changes,” said Hanna. “ThePyramid is the most user-friendly way to teach people about eating healthier.”

According to Hanna, one of the easiest ways to learn about healthy eating habits is by looking at the U.S. Department of Agriculture’s food pyramid. As many people might remember from grade school, the food pyramid suggests nutritional guidelines for each food group along with suggested servings for healthy eating.

“If you look at the food pyramid and then compare it to the key diets recommended by the American Diabetes Association or the American Heart Association, you’ll see they are very similar,” said Hanna. “The pyramid suggests high fiber, less refined carbohydrates, more whole grains, leaner meats, moderate fats—but healthy fat. If you’re looking for the best way to lose weight and eat healthy, just follow the recommendations of the food pyramid,” said Hanna.

“We are afraid of having to make big behavioral changes,” said Hanna. “ThePyramid is the most user-friendly way to teach people about eating healthier.”

For more information on establishing lifelong healthy eating habits, check out the U.S. Department of Agriculture’s food pyramid at www.mypyramid.gov.

LIFESTYLE CHANGE DUNN RIGHT

Joyce Dunn first noticed how out of shape she had become when she couldn’t find the energy to play with her granddaughter. “She would ask me to play, and when she threw the ball past me, I would say, ‘I wish I could get it,” Joyce recalled. “Grandma’s tired. Can we do it sitting down?”

It was only one year ago when the Dunns decided to do something about their weight issues and joined a class that promoted the science and philosophy of weight loss. “The main thrust of the program was that by reducing 500 calories a day, you would lose 1,500 calories in seven days, or one pound a week,” said Al. “The main example was an order of French fries. If you don’t eat that order of French fries, you can save 500 calories for that day.”

Al and Joyce, both employees with the School of Medicine, had slid into a self-described “sedentary lifestyle” and usually ate anything they wanted. But along with being unable to keep up with her granddaughter, Joyce also had some medical issues that spurred them into action.

“One of the keys to our weight loss was that we did it together. It was critical to our success,” said Al. “We can inspire and compete with one another even though it’s not really a competition.” “Yes it is,” Joyce interjected with a laugh, noting that she has gone from a size 20 to a size 12.

As their friends and coworkers started noticing their dramatic weight loss, Al, who went from a 38” to a 33” waist, soon came up with a slogan to encapsulate everything the two had learned: “Cook, cleanse, and share,” said Al. “Cook meals more often with as many vegetables as you can. Cleanse and hydrate yourself by drinking 48-96 ounces of water a day, and, when out, thor, you’ll never have a meal that is completely possible.”

As frequent restaurant patrons, the Dunns learned to order only one entrée or cut the portions in half. “If you don’t have a partner to share your food with, ask the restaurant server to only serve half the portion and put the other portion in a sleeve box to take home. It’s not on your plate, you won’t eat it,” said Al.

Along with drinking more water and learning to eat less and more healthy, the Dunns also discovered they didn’t have to give up their favorite guilty pleasures like desserts. “Don’t deprive yourself if there’s something you really like,” said Al. “Have it as a treat. If we say we’re going to try to lose 20 pounds over the next three to four months, when we hit that, we have a little celebration with something like a piece of cake.”

But according to Joyce, their weight loss and dietary changes added, there is a much more personal reason—besides new clothes—to celebrate their weight loss and new lifestyle. “Now when it comes to being active,” said Joyce, “I’m the one that says to my granddaughter, ‘Come on, Bingo. Let’s play’.”

Dr. James Fant, Internal Medicine

FANT explains that there are different theories about why weather would affect arthritic conditions—the most common theory concerning atmospheric pressure as indicated by a barometer. “Suppose you have an inflamed joint that is subject to swelling,” said Fant. “If the barometric pressure is decreased, then that would allow the inflamed tissue to swell more, simply because there is less atmospheric pressure holding the tissue back. If there are nerves in that tissue, then those nerves would be stimulated by that swelling, and that would translate into pain.”

Cold weather is another mechanism that could cause arthritic symptoms, according to Fant. In the same way that a decrease in barometric pressure decreases swelling of an inflamed joint, cold weather would have the opposite effect. Fant said that if cold temperatures shrink tissue down, it pulls on nerves, thereby causing pain.

Although there is still not a specific source that shows how weather affects arthritis, Fant says that cold weather tends to create lifestyle conditions that can lead to arthritic symptoms. “A lot of the rheumatic conditions I treat become worse with a sedentary lifestyle—a condition that is more prevalent in the winter months,” said Fant. “During winter, many people lead a less active lifestyle, and their joints tend to stiffen up. This is commonly referred to as gelling, where your joints become ‘gelled’ because you are sitting in one position too long, and it causes pain and stiffness.”

Beyond rheumatoid arthritis or osteoarthritis, Fant also says that the patients he sees for lupus can be directly affected by weather conditions. “I’ve treated lupus patients with a condition called Raynaud’s syndrome,” said Fant. “Raynaud’s causes cold-induced vasospasms—or decreased blood supply in the hands—and it can definitely worsen in colder conditions.”

Fant says the sun’s warmth can provide some relief. “With the more prevalent arthritis types like osteoarthritis or rheumatoid arthritis, sun exposure, because it provides warmth, can make you feel better. There’s no evidence that it actually changes the condition, but it can affect symptoms in a positive way.”

Beyond weather-related symptoms, Fant says there are more than 120 diagnosed conditions that result in arthritis or joint pain. For more information, contact the University Specialty Clinic’s Division of Rheumatology at 803-540-1000.
Brain Surgery Gives Teens a New Lease on Life

Misdiagnosed blackouts and seizures threatened to take away Omar’s dreams of life-saving surgery that gave him a chance to see his dreams fulfilled.

At 16 years old, Omar Oliphant of Columbia, S.C., was looking forward to many of the typical hallmarks associated with being a healthy teenage boy, such as playing high school football and learning to drive. But due to an unknown arterial venous malformation (AVM) in his brain, Omar’s life would soon take a very different direction.

“I was on vacation with my family, and I was swimming in the pool when all of a sudden my arms locked up,” Omar said. “Soon after, I started having a series of blackouts.” Omar and his parents sought immediate medical attention, but his condition was initially attributed to dehydration due to his active lifestyle. Ironically, while standing at his high school water fountain several weeks later, Omar had what would be the first of many unexplained seizures.

His physician at the time told him to watch his vitamins. But while training for the upcoming football season, Omar’s seizures returned and were worse than ever. “That’s when my parents knew there was something much more serious going on. But every time they took me to the doctor, they said I was fine,” Omar said. Finally, after another seizure during football practice, Omar received a CT scan that helped diagnose the source of his seizures.

The results of his CT scan revealed that Omar had an arterial venous malformation in the back of his brain—a collection of abnormal vessels,” said Webb. “Some- describes an AVM as a “big bag of worms.” “An AVM is a tri- angular collection of abnormal vessels,” said Webb. “Our other option was Gamma Knife radiosurgery treatment, a more efficient treatment for deeper, smaller AVMs, but one that takes two to three years to take full effect.”

Although frightened at the prospect of brain surgery, Omar and his parents felt that radiation therapy was not a viable option. “They said I couldn’t exercise for two years or play sports, and I could have gotten cancer from the radiation,” Omar said. As a family, Omar and his parents decided to take Webb’s advice for a total surgical removal of his AVM.

“It’s one of the most challenging surgeries we do,” said Webb. “It’s very meticulous and the main purpose is to stay outside of the AVM. Because once you get into it, there’s a lot of bleeding,” said Webb. “You’re also dealing with abnormal vessels that don’t want to stop bleeding in spite of the use of electrocautery.”

Webb said that because Omar’s AVM was still relatively close to the eloquent part of his brain, she did have a slight concern that he may suffer from temporary side effects from his surgery. “Because of the area where his AVM was, I wasn’t sure what we would be dealing with when he woke up,” said Webb. “We were still looking at the possibility of weakness or some decrease in the coordination of his motor skills.”

However, Omar pulled through with motor skills intact. “I prayed to God that everything would be fine,” Omar said. “I had a mindset that I would recover fast. They said I would be in recovery for a week, but I was out in less than three days. They were amazed I recovered so fast.”

Today, Omar is not only free of seizures, but he is finally getting back to the typical life of a teenager. “It’s so rewarding to help Omar, to know that we could help him get better and to see him go on to college,” said Webb. “Now that his seizures are gone, he’s getting back to a normal life and doing the things he wants to do—like driving.”

Dr. Sharon Webb performed life-saving surgery that gave him a chance to see his dreams fulfilled.
The Reconstructive Side of Plastic Surgery

Plastic surgery is not all about vanity, but is most often a necessity.

Many people tend to associate plastic surgery with vanity, or cosmetic procedures such as face-lifts, nose jobs, and breast enhancements. But when it comes to the reconstructive side of the business, plastic surgeons are charged with reshaping and remodeling the human body for reasons that go way beyond cosmetics.

Dr. Elliott Chen, assistant professor of surgery in the division of plastic and reconstructive surgery at University Specialty Clinics, said that although he performs many cosmetic procedures, the core of his work involves reconstructive surgery. “The reconstructive side of what I do involves everything from reshaping skulls due to diseases and genetic conditions to fixing children with cleft palates,” said Chen. According to the American Society of Plastic Surgeons, there were nearly five million reconstructive surgeries done last year in the United States. The top five procedures were tumor removal, laceration repair, hand surgery, scar revision, and breast reduction. In Chen’s practice, he typically performs many of the same procedures, including breast reduction and tumor removal, but he also specializes in treating a large number of cases involving birth defects, particularly those involving craniofacial surgery, pediatric plastic surgery, and cleft palate care.

“I serve as a medical director on all of our cleft palate cases,” said Chen. “But I’m just part of a large team of physicians that includes everyone from pediatricians to speech language pathologists, orthodontists, and audiologists. We all play a different role, but our main goal is to help make these children live as normal a life as possible.”

When it comes to the term “normal,” Chen said he operates under the philosophical question of “What is normal? For me, normal is whatever the patient thinks it is. I try to ensure they have realistic expectations of what the result of their surgery will be,” said Chen. “Our goal is to help these patients get back to a normal appearance, with the concept of ‘normal’ being something that is unique to the individual patient.”

Although the types of surgery he performs are all challenging in their different ways, Chen emphasizes that his guiding surgical principle is one of maintaining simplicity and consistency. “As a plastic surgeon, it’s my job to help that patient,” said Chen. “All cosmetic plastic surgeons do reconstructive surgery, and all reconstructive surgeons do aesthetic surgery. But I tend to get more satisfaction in helping someone who just needs a hand. When you are helping a child with a cleft lip, it doesn’t take that much time, but after you’re finished, you know you did something good.”

For more information on reconstructive or cosmetic surgery procedures, contact the University Specialty Clinic’s Division of Plastic and Reconstructive Surgery at 801-236-2657.

“Expert Answers” features commonly asked questions and the responses of our expert physicians, scientists, and health care providers. For more information about concerns you may have, contact your health care provider.
University Specialty Clinics Welcome New Full-Time Clinical Faculty

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Interest(s): Heart failure and management
803-540-1000

Chitra Lal, MD
Pulmonary, Critical Care, and Sleep Medicine
Interest(s): Sleep disorders, COPD and Asthma
803-799-5022

Meghan S. Arant, MD
Pediatrics
Interest: General Pediatrics
803-434-7961

Richard Lehman, MD
Neurosurgery
Interest(s): Surgery of the spine, peripheral nerves and brain tumors
803-434-8323

Elliott H. Chen, MD
Surgery
Interest(s): Craniofacial surgery, pediatric plastic surgery, cleft care, facial trauma, adult reconstruction, and wound healing
803-254-0821

Kristiana D. Neff, MD
Ophthalmology
Interest(s): Cornea, cataract, and refractive surgery
803-434-1561

James R. Howe, MD
Neurosurgery
Interest(s): Functional neurosurgery, deep brain simulation for Parkinson’s Disease and other movement disorders
803-434-8323

Andrea K. Mass, MD
Pulmonary, Critical Care, and Sleep Medicine
Interest(s): COPD, septic shock, pulmonary function and cardiopulmonary exercise testing
803-799-5022

Sylvia S. Kim, MD
Surgery
Interest(s): Anorectal disease, colorectal cancer, and laparoscopic colon surgery
803-929-0492

Andrew Sides, MD
General Internal Medicine
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Richard A. Hoppmann, MD
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Charise D. Bell
Director, Marketing and Communications
HealthWise Editor
Robbie Robertson
Contributing Writer

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Send comments and suggestions to charise.bell@uscmed.sc.edu, call 803-253-5898, or FAX 803-733-3335.