

Scientists find link between achy joints, weather

By Melinda Beck, Wall Street Journal

The Wolff family of Paramus, N.J., was eyeing the gathering clouds and debating whether to cancel a planned park trip when 6-year-old Leora piped up with an idea: "Let's call Grandma. Her knees always know when it's going to rain!"

Leora's grandmother, Esther Polatsek, says she started being sensitive to the weather in her 20s, when a fracture in her foot would ache whenever a snowstorm approached. Now 66 and plagued by rheumatoid arthritis, Polatsek says she suffers flare-ups whenever the weather is about to change.

"It's just uncanny. Sometimes it'll be gorgeous out, but I'll have this awful pain. And sure enough, the next morning it rains," she says. "It may be just a few drops, but it makes my body crazy."

Do weather conditions really aggravate physical pain?

It is one of the longest running controversies in medicine.

Hippocrates in 400 B.C. noticed that some illnesses were seasonal. The traditional Chinese medicine term for rheumatism (fengshi bing) translates to "wind-damp disease."

But modern scholars have gotten inconsistent results in studies that tried to match weather patterns to reported pain symptoms—leading some to dismiss the connection as highly subjective or all in sufferers' minds.

"People's beliefs about arthritis pain and the weather may tell more about the workings of the mind than of the body," concluded the late Stanford psychologist Amos Tversky in the mid-1990s, after comparing the pain reports of 18 rheumatoid-

arthritis patients with local weather conditions for a year and finding no connection.

Still, other studies have linked changes in temperature, humidity or barometric pressure to worsening pain from rheumatoid arthritis and osteoarthritis, as well as headaches, tooth aches, jaw pain, scar pain, low-back pain, pelvic pain, fibromyalgia, trigeminal neuralgia (a searing pain in the face), gout and phantom-limb pain.

Scientists don't understand all the mechanisms involved in weather-related pain, but one leading theory holds that the falling barometric pressure that frequently precedes a storm alters the pressure inside joints. Those connections between bones, held together with tendons and ligaments, are surrounded and cushioned by sacs of fluid and trapped gasses.

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