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Elizabeth Weiss: Joint pain and weather can go hand in hand

By Elizabeth Weiss Special to the Arizona Daily Star
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As a Tucson-based professor of anthropology (who teaches at San José State University) with expertise in osteoarthritis research, I was surprised and disappointed to see the Feb. 11 Medicine Cabinet column and Dr. Robert Shmerling's response to joint pain and weather connections.

Dr. Shmerling stated that “he remains a skeptic about the weather and arthritis connection” although he said that he believes his patients when they state that they can predict the weather by their joint pain.

One of my former students who suffers from rheumatoid arthritis was not so lucky with her doctor; when she moved from a warm and sunny climate to the damp and gray Bay Area (think of the Frank Sinatra song, “The Lady is a Tramp,” where she “hates California; it's cold and it's damp”), she complained to her doctor that her mobility decreased, and she thought it might be due to weather. Her doctor dismissed her and said that she should just lose weight.

To support his skepticism, Dr. Shmerling cited two studies:

1) a study on doctor visits that found that more people go to the doctor for joint pain on sunny days. Yet, people who have arthritis and know that this is what is causing pain may opt not go to see the doctor when pain worsens, especially if they notice that this increased pain is linked to weather.

2) an Australian study relating to back pain; back pain has many causes most of which are not even related to the joints, such as hernias, stress fractures, and muscle strains. Back pain causes are notoriously difficult to diagnose, and even depression can result in back pain, but not usually in knee or hip pain.

A third study he mentions regarding knee osteoarthritis actually found a small correlation with joint pain and climate.

Climate does affect osteoarthritis and rheumatoid arthritis. There are thousands of studies, with experimental, clinical and radiographic data, that have found a link between arthritic joint pain and weather. For example, in an X-ray study of Russians, L. Kalichman and colleagues (2011) found that colder, wetter, and darker climate negatively affected hand osteoarthritis. Also, clinical researchers found a link between osteoarthritis pain and increased humidity coupled with decreased sunshine even in people who did not themselves think their joint pain was weather-related.

And, from Japan, Tokumori and coresearchers (2011) found that joint pain decreased with sun exposure. Furthermore, prehistoric northern populations, such as the Eskimo and Aleut, had far more osteoarthritis than other prehistoric populations (see “Reading the Bones: Activity, Biology, and Culture”).

Why joints are negatively affected by cold and damp weather is not fully understood; some have proposed that vitamin D may play a part in keeping cartilage healthy. This does not mean that climate is the main cause of arthritis; age is, but climate does affect joint pain. And, thus, one reason older individuals may be drawn to Tucson and other Southwestern locations is to reduce their joint pain by enjoying the warm, dry sunshine!



Elizabeth Weiss

Handout

Dr. Elizabeth Weiss is a professor of anthropology at San José State University. She has studied bone health and disease in early human fossils, prehistoric Amerindian collections, historic prisoners-of-war samples and contemporary autopsy collections.
