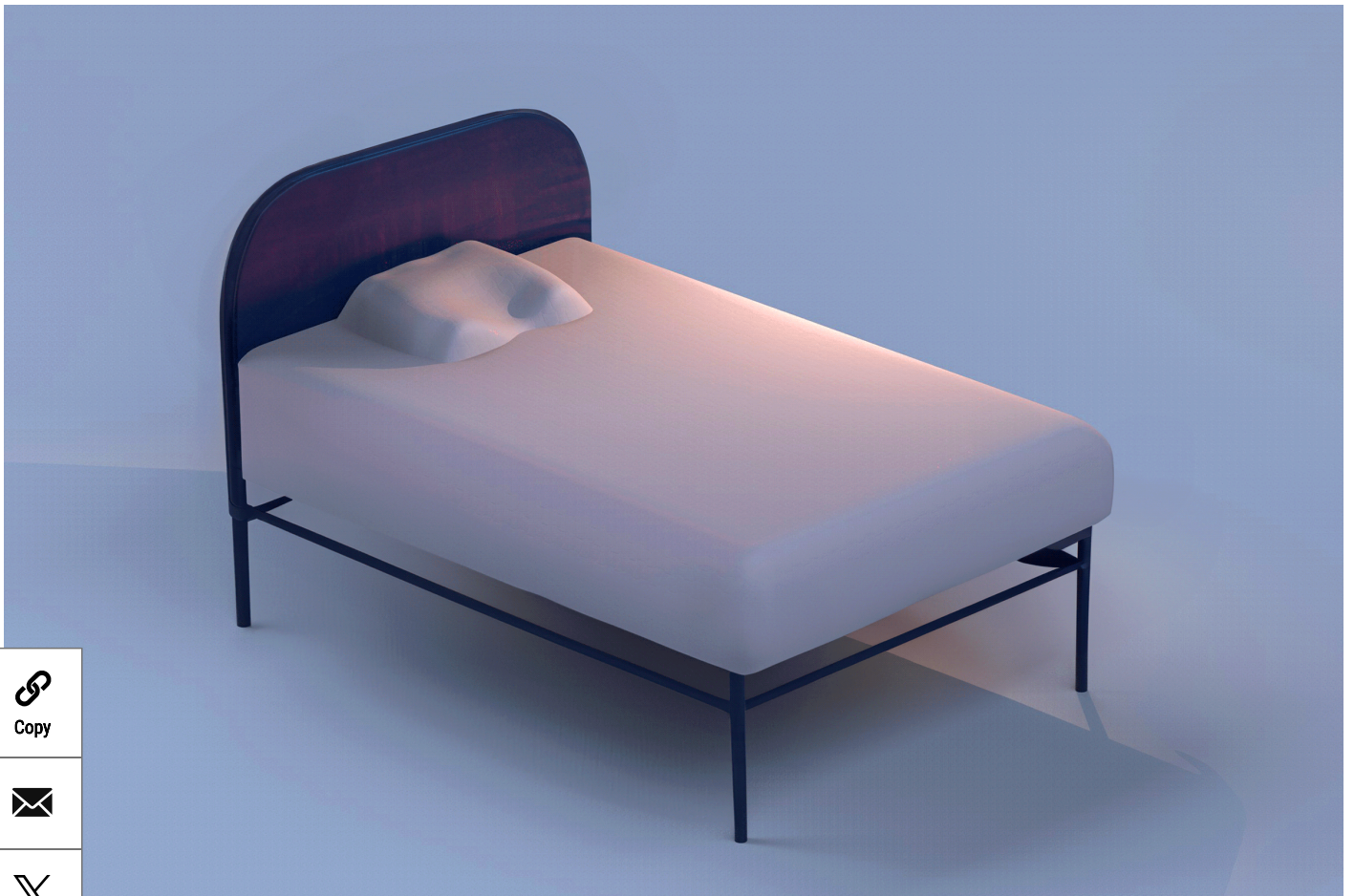


HEALTH PREMIUM REPORTS

# Your Old Mattress May Be the Cause of Nagging Symptoms —Here’s How

People may not realize that many of their discomforts can be linked to what they are sleeping on.

 0  0  Play  Save



Copy

Share

on by The Epoch Times, Shutterstock

**By Flora Zhao** | October 12, 2024 Updated: October 12, 2024

A friend of mine who is a magazine editor shared a story with me: She had been experiencing persistent discomfort, including neck and back pain, that would not resolve despite her trying various remedies. One day, on a whim, she decided to replace her 10-year-old mattress. To her surprise, her symptoms disappeared within a few days.

“A lot of people wake up in the morning and they will have a stiff back or a sore back. That may be a sign that the mattress is getting older,” Bert Jacobson, M. B. “Bud” Seretean endowed professor and regents professor at the School of Kinesiology, Applied Health, and Recreation at Oklahoma State University, told The Epoch Times.

Over the past two decades, Jacobson has led and participated in a series of studies on mattresses. He has [identified](#) a common

phenomenon: When people switch to a new mattress, the symptoms that once troubled them often disappear. In his research, many individuals reported [no longer](#) experiencing stiffness and pain upon waking, feeling more refreshed and having less psychological stress.

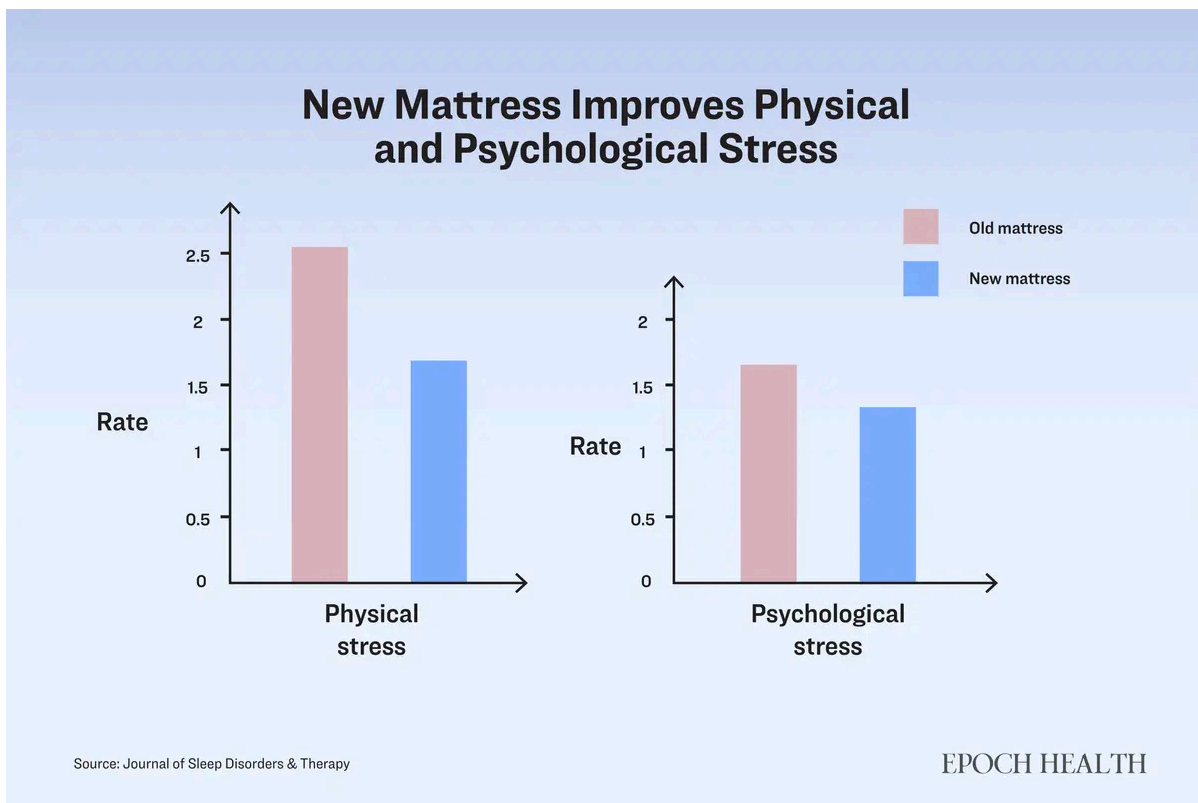
He noted that people may not realize that all these discomforts are related to “what you sleep on.”

## The Lifespan of a Mattress

“The average age of a mattress is around 10 years old,” Jacobson said.

In one of his earlier studies, 59 healthy participants who used the same mattresses for an average of 9.5 years reported mild sleep-related pain and compromised sleep quality. After switching to a new medium-firm mattress for four weeks, they experienced a 48 percent reduction in back pain, a 55 percent improvement in sleep quality, and an approximately 20 percent decrease in stress.

Another study involved participants whose mattresses had been in use for 11.3 years. They exhibited significant health improvements after switching to new mattresses. Their physical stress scores dropped significantly from 2.57 to 1.73, psychological stress decreased from 1.70 to 1.37, and they slept longer.



A new mattress leads to a decline in stress. The Epoch Times

How a mattress supports your body can even influence mood. A new [study](#) published in April 2024 showed that middle-aged individuals with occasional insomnia who switched to a medium-firm grid mattress experienced significant improvements in self-reported sleep duration, fatigue, and daytime mood, including tension, anger, esteem, and vigor.

Heather A. Hausenblas, the study's corresponding author and a professor of exercise science at the Brooks Rehabilitation College of Healthcare Sciences at Jacksonville University, told The Epoch Times that replacing a mattress is a simple change yet can have a profound impact.

The improvements observed in the study prompted her to replace her own old mattress with a new one over a year ago. "I find it extremely comfortable," she said.

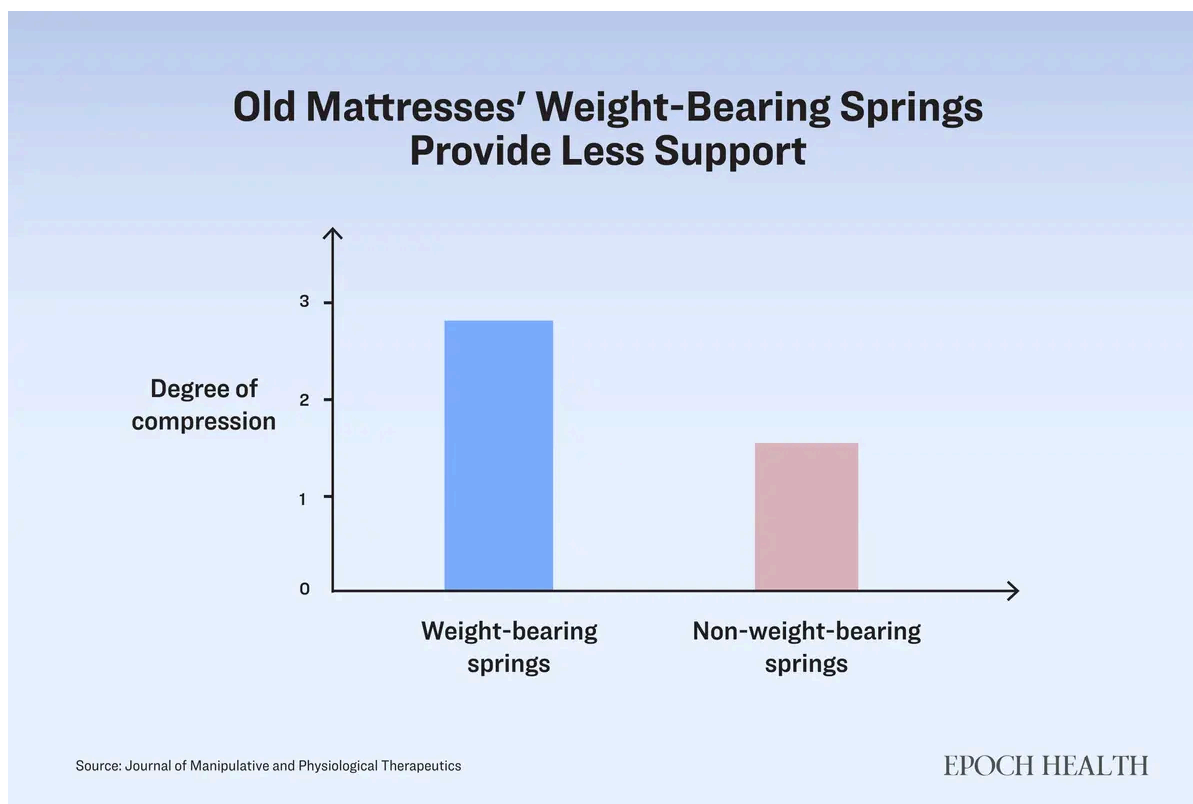
Recognizing that simply replacing a mattress can alleviate or eliminate pain and discomfort, Jacobson designed a [study](#) to examine



the wear and tear of old mattresses, focusing on the most commonly used spring mattresses.

He and his colleagues collected 32 old mattresses, the average age of which was nine years. By extracting and testing the weight-bearing springs from the center of the mattresses, as well as the non-weight-bearing springs from the head and foot, they found that although the mattresses appeared flat and the springs looked normal, the weight-bearing springs were weaker than the non-weight-bearing springs due to years of compression.

Specifically, when approximately 2.2 pounds of weight was applied to both types of springs, the weight-bearing springs were compressed by an average of 1.09 inches. In contrast, the non-weight-bearing springs were compressed by little more than half an inch, highlighting a significant difference.



It only takes a small amount of weight to distort the mattress's structure. The Epoch Times

Some people believe that their mattresses, despite years of use, are still in good condition, but this is just an illusion. Jacobson explained

that non-weight-bearing areas of the mattress can appear visually flat, and since a bedspread always covers them, the mattress may even look relatively new. However, even a small amount of weight can cause significant deformation in the weight-bearing springs, potentially compromising their original structural support. This can result in poor sleep posture and a decline in sleep quality.

## Factors at Play

How often a mattress should be replaced varies by material.

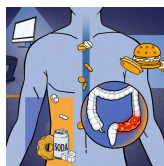
“Innerspring mattresses usually need replacing quicker than other mattresses due to wear and tear on the springs, while memory foam and latex mattresses may last longer because of their more resilient materials,” Shelby Harris, director of Sleep Health at Sleepopolis and a licensed clinical psychologist who specializes in behavioral sleep medicine, told The Epoch Times. “The replacement interval also depends on the quality of the mattress and how well you take care of it.”

### Premium Picks

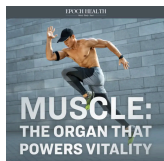
---



Widely Used and Deemed Safe, These Food Additives Are More Harmful Than Thought



Colorectal Cancer Is Striking Young People, and ‘Some New Exposures’ May Be Fueli...



Muscle: The Organ that Powers Vitality

It also depends on its condition. “If it is no longer comfortable and is implicated in sleep disturbance,” it’s time to replace it, said Moira

Junge, CEO of the Sleep Health Foundation in Australia, adjunct clinical associate professor at Monash University, and health psychologist, during an email interview with The Epoch Times.

It is worth noting that even mattresses made from the same or similar materials can vary in lifespan. For example, low-density memory foam mattresses tend to have shorter lifespans than high-density ones. Similarly, synthetic latex mattresses generally do not last as long as natural latex ones.

For an average-quality mattress, most experts who are asked generally agree on a replacement time of seven to 10 years.

However, heavier individuals tend to wear out a mattress more quickly. “I once had a new customer who weighed 300 pounds and told me he had to replace his mattress every year,” Lee Carter, president of Sleep Essentials, Inc., told The Epoch Times. Carter then recommended one of his high-quality latex mattresses to the customer. “It has been several years now, and he is still using that mattress without needing to come back for a replacement.”

When people consider how long their mattress will last, they often think of the 20- or 25-year warranty offered by the retailer at the time of purchase. However, these warranties mainly cover the mattress’s core structure and specific components. They do “not guarantee the comfort or the support,” Jacobson emphasized. The wording of these warranty contracts or guarantees is often subtle, if not vague. The key details are typically hidden in the fine print, where exclusions or specific conditions are outlined.

However, he also noted that mattresses with an extended warranty period are likely better than those with no warranty at all.

## **Other Threats Within Old Mattresses**

## Dust Mites and Allergens

An old mattress not only compromises support for your body but can also lead to other problems.

For example, dust mites can thrive in an old mattress. Human skin renews itself constantly, shedding an average of [1.5 grams](#) of dead skin cells each day. This amounts to roughly 1.1 pounds of skin flakes annually, most of which becomes “house dust.”

The continuous shedding and accumulation of skin cells in the environment is not a problem in and of itself. The real problem is that these skin cells serve as food for dust mites. Old mattresses often harbor large populations of these mites. They are microscopic, measuring about 0.4 millimeters in length, invisible to the naked eye. They thrive in warm, humid conditions with ample food, making mattresses their ideal habitat.

Dust mites carry various allergens in their droppings, exoskeletons, and eggs. [Over 20](#) known mite-related allergens can trigger allergic reactions and contribute to the development of atopic dermatitis. One [study](#) found that approximately half of U.S. households have dust allergen levels at or above the presumed allergy sensitization level (>2 micrograms per gram of dust).

Dust mite allergens at levels exceeding 10 micrograms per gram ( $\mu\text{g/g}$ ) of dust are considered likely to induce allergic symptoms. A [study](#) conducted on mattresses in a dormitory for hospital staff in Thailand showed that, after nine months of regular use, the average dust mite allergen level in sponge-like polyurethane mattresses increased to 11.2  $\mu\text{g/g}$  of dust. By the 12th month, this level had doubled.

The type of mattress can also influence dust mite density. An early [study](#) conducted by Norwegian scientists on over 100 mattresses found that foam mattresses were about three times more likely to

harbor dust mite droppings than spring mattresses, and foam mattresses without covers were five times more likely to have them.

Researchers in Brazil found that dust collected from the lower surface of mattresses was [significantly more](#) infested with dust mites than the upper surface—3.5 times higher.

## Bacteria and Mold

Mattresses can absorb sweat, saliva, and other bodily fluids, creating an environment conducive to the growth of fungi and bacteria. Common microorganisms found in mattresses [include](#) mold and bacteria such as Staphylococcus, Bacillus, Micrococcus, and Pseudomonas.

These microorganisms can cause a range of symptoms, including headache, fatigue, chest tightness, coughing, asthma, allergies, eye and nasal irritation, rash, and muscle pain. For individuals with weakened immune systems or chronic lung disease, bacteria can infect the lungs, potentially leading to [hypersensitivity pneumonitis](#).

Bacterial growth in mattresses is also thought to be [linked](#) to certain cases of sudden infant death syndrome (SIDS). A [case-control study](#) conducted more than 20 years ago in Scotland over 4.5 years found a significant association between the routine use of old infant mattresses, particularly those from other households, and an increased risk of SIDS.

Certain types of mold can trigger excessive inflammation and adversely affect the nervous system, [resulting in](#) cognitive and emotional dysfunction and behavioral problems.

Mold spores thrive in environments with adequate moisture. Maintaining indoor humidity below 50 percent can effectively control mold growth. Dehumidifiers and air conditioners can help achieve and sustain this level of humidity.



## Flame Retardants

Since the 1970s, regulations have mandated the addition of [flame retardants](#) to consumer products. These substances are known for their persistence, bioaccumulation, and toxicity. From 2004 to 2017, regulatory controls on these chemicals were gradually included in the [Stockholm Convention](#), a global treaty that protects people from persistent organic pollutants. Today, many of the controversial flame retardants have been phased out in most countries.

However, households may still be using mattresses containing these potentially hazardous substances. Flame retardants typically comprise about 3 percent to 7 percent of the weight in polyurethane foam. Although the U.S. Consumer Product Safety Commission (CPSC) approved a petition in 2017 to stop requiring flame retardants, it will take years to eliminate these toxic substances from household environments.

A 2022 [study](#) showed that mattress covers were found to contain flame retardants despite certifications for the foam. In four newly purchased mattress covers tested by researchers, two contained more than 50 percent fiberglass—a common flame retardant used in mattresses—in the inner layers. The fiberglass fragments, ranging from 30 to 50 micrometers in diameter, could be inhaled into the nose, mouth, and throat.

Some materials, like natural rubber and wool, are naturally flame-resistant. Opting for mattresses made from these materials can help minimize exposure to flame retardants.

## How to Slow Mattress Aging

### Rotating and Flipping

Rotating your mattress every three to six months can help reduce body impressions and the formation of irregular shapes, thereby extending its lifespan. However, be aware that some mattresses with zoned or layered constructions—such as those with a memory foam top and a spring base—may not be suitable for flipping and should only be rotated 180 degrees horizontally, Carter added.

The specific methods for rotating and flipping mattresses are illustrated in the diagram below:



## Proper Cleaning Methods

First of all, regular vacuuming of mattresses is essential. One [study](#) demonstrated that daily vacuum cleaning can reduce the total dust in the mattress by 78 percent after eight weeks. Dust mite allergens, bacteria, and fungi were also significantly reduced.

Vacuuming is [more effective](#) at removing dust mites than using a brush to clean the mattress.

Another cleaning method to follow is washing bed linens in hot water weekly. Dust mites are sensitive to heat, and washing bedding items in water at temperatures above 130 Fahrenheit (54 Celsius) can effectively eliminate them and their allergens.

Lastly, deep clean the mattress twice a year. Begin by using a vacuum cleaner to thoroughly clean the mattress surface, paying particular attention to crevices and seams. Next, tackle any stains and sweat buildup: Mix 1 teaspoon of dish soap with 1 cup of warm water, spray the solution onto the mattress (for stubborn stains, a paste mixture of baking soda and water can be used), let it sit for a few minutes, and then scrub with a damp cloth. Afterward, sprinkle baking soda over the mattress to absorb moisture and neutralize odors. Then, vacuum the mattress thoroughly after the baking soda has been left for at least an hour.



Vacuuming, deep cleaning, and using a dust mite protector (if you have an allergy) are effective ways to reduce dust mites and dust accumulation in the mattress. LightField Studios, Isaeva Studio, waheedaslam/Shutterstock

## Mattress Protectors

When it comes to preserving mattresses, many people immediately think of using a protector, particularly dust mite-proof or waterproof—options that have gained widespread popularity. However, Carter noted that buying a protector requires careful consideration.

Carter personally recommends that people without allergies to dust mites or dust maintain their mattresses by washing sheets weekly. He pointed out that mattress protectors can somewhat reduce comfort—especially for memory foam mattresses, where a rigid protector can hinder the mattress’s ability to conform to the body.

He suggests consumers try sleeping on a mattress with and without a protector to determine which option suits them best. He chooses not to use a mattress protector to ensure maximum comfort.

For people with dust mite or dust allergies, it is important to select a mattress protector with a pore size of 0.5 micrometers or smaller. These protectors typically have a shorter lifespan than the mattress itself, lasting about two to three years.

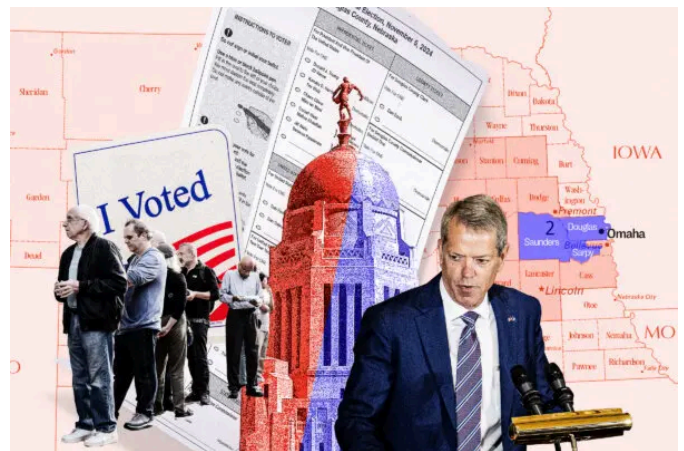
**Sign up for the Epoch Health: Premium Picks.** A rich, diverse selection of premium, in-depth articles, and exclusive content to enhance your overall well-being. [Sign up with 1-click >>](#)

## More Premium Reports

See More



**Where Harris and Trump Stand on Ukraine**



**How a GOP-Led Effort to Change Nebraska’s Electoral College Voting Failed**

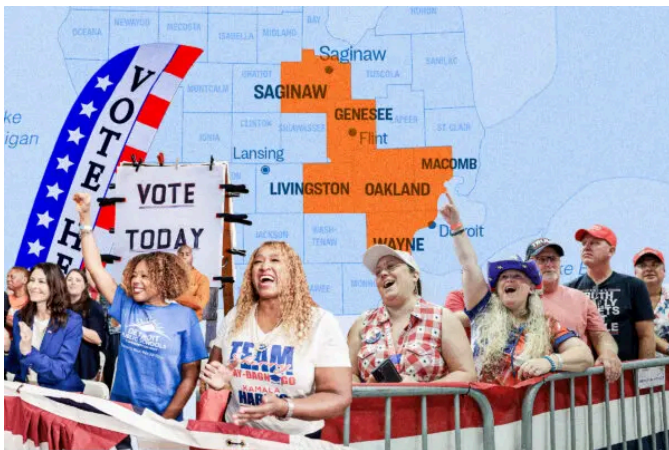




**In Wake of Roe Reversal, Abortion-Related Legal Battles Increase**



**From Hawaii to Florida, Tracing Ryan Routh's Path to Attempted Trump Assassination**



**These 6 Michigan Counties Could Decide Who Wins 2024 Presidential Election**



**'It's Our Hurricane Katrina': Asheville Residents Describe Death, Destruction, Danger After Hurricane Helene**



**California Faces Wave of Lawsuits Over Gender Identity Notification in Schools**



**New Mexico's Nuclear Town Has Big Housing Problem**





**How Viral Videos of Death and Violence are Traumatizing Children**



**6 Things to Watch in the Upcoming Supreme Court Term**

## EPOCH HEALTH



### Explore Our Health Newsletters

Get the best in health and wellness. See all of our inspiring newsletter.

CHOOSE YOURS NOW

#### Newsletters

Health: Rise & Shine

Wellness: Mind, Body & Soul

21-Day Super Immunity Challenge

Gut Health

Arthritis & Chronic Pain

Vaccine Investigation

#### The Essential Guide

Heart Disease

Parkinson's Disease

Cancer

Tinnitus

Arthritis

Alzheimer's Disease

#### Special

Original Series

The Essential Guide

Books

Brain Games

Challenge

**Integrative Medicine**

**Anxiety**

**Nutrition & Supplements**

**Migraines**

**Aging Well**

**Kidney Disease**

THE CONTENT IN EPOCH HEALTH IS NOT INTENDED TO BE A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE, DIAGNOSIS OR TREATMENT. NEVER DISREGARD PROFESSIONAL MEDICAL ADVICE, OR DELAY IN SEEKING IT, BECAUSE OF SOMETHING YOU HAVE READ IN THIS PUBLICATION. NEVER RELY ON INFORMATION IN THIS PUBLICATION IN PLACE OF SEEKING PROFESSIONAL MEDICAL ADVICE. EPOCH HEALTH DOES NOT RECOMMEND OR ENDORSE ANY SPECIFIC TESTS, PRODUCTS, PROCEDURES, OPINIONS OR OTHER INFORMATION THAT MAY BE PROVIDED IN THIS PUBLICATION. [SEE ADDITIONAL INFORMATION.](#)

[Contact Us](#) [Media Statements](#) [About Us](#) [RSS Feeds](#) [Terms of Services](#)

[Privacy Policy](#) [Copyright Policy](#) [Data Disclaimer](#) [Digital Newspaper](#)

[Our Story](#) [Subscribe](#) [Careers](#)

---

Copyright © 2000 - 2024 The Epoch Times Association Inc. All Rights Reserved.

[Cookies Settings](#)