

SCIENCE

## Is Ehlers-Danlos Syndrome really so rare—or is it misdiagnosed?

Chronic pain. Extra-flexible joints. Stretchy skin. These are just some of the symptoms of the debilitating genetic disorder that's incredibly hard to diagnose.

presentations of EDS. PHOTOGRAPH BY LIA, ALAMY STOCK PHOTO BY ERIN BLAKEMORE

such as skin, joints, and the walls of blood vessels. Hypermobility is one of the most common

PUBLISHED FEBRUARY 6, 2024

For 41-year-old Baltimore physician Alissa Zingman, the first confusing symptoms—dislocated kneecaps and chronic pain—began when she was a child; by age 19 she had already undergone two orthopedic surgeries. Without a firm diagnosis for what was causing her varied symptoms, Zingman doubted her own experiences and suffered through medical school, worrying she might be a hypochondriac. "For many years, I felt like the fact I was in pain all the time was something to be ashamed of," she says.

But after suffering for years with joint problems, chronic pain, and repeated illnesses, Zingman finally received a diagnosis in 2017: Ehlers-Danlos Syndrome, a genetic disorder that affects her body's ability to produce the collagen necessary to support her body's connective tissues. Zingman isn't alone: Ehlers-Danlos is a growing watchword among a

community of patients with a variety of health issues that range from unusually bendy joints to strange scars and chronic fatigue. Here's what's behind the wide range of syndromes—and why the genetic disorder can be so difficult to diagnose and treat. What is Ehlers-Danlos Syndrome?

### Ehlers-Danlos was first described by Danish physician Eduard Ehlers and French physician Henri-Alexandre Danlos in the early 20th century. Since

then, the name has been extended to a host of inheritable connective tissue disorders with a variety of symptoms and severities. Though often referred to simply as "Ehlers-Danlos" or "EDS," the term officially covers 13 genetic connective tissue disorders. Most forms of EDS are characterized by hypermobile joints and stretchy, velvety skin, but symptoms of the disorders vary. The most common

subtype, hypermobile EDS (hEDS), involves joint instability, dislocations,

Other subtypes affect different bodily systems: In brittle cornea syndrome (BCS), for example, patients' corneas become thin and fragile; in periodontal EDS (pEDS), the tissues that support patients' teeth break down. EDS syndromes cover everything from the skin to the skeleton and the internal organs, and the conditions can range from annoying to lifethreatening.

## patients typically wait years and even decades after symptom onset to

An elusive diagnosis

joint pain, and fatigue.

learn they have EDS—an average of 14 years, concluded one 2019 study; the same study noted a quarter of the patients waited more than 28 years for an EDS diagnosis. Misdiagnosis is also common, and sex disparities plague EDS patients; the same 2019 study, which looked at a cohort of patients in Wales, found that

men were diagnosed 8.5 years earlier on average than women.

Zingman's experience isn't rare: Despite the importance of early diagnosis,

Often, the joint issues, pain, and fatigue associated with many cases of EDS are only the beginning: The disorders are commonly associated with other conditions including POTS, digestive disorders, and sleep and anxiety orders. For Zingman, an immune system disorder made her EDS diagnosis that much more complicated. When she finally received a diagnosis of hEDS, she says, it was a relief—and an explanation for all of

affected her ability to walk. "Getting a diagnosis changed everything," she says. "I now knew that my symptoms were real and that there had to be a way to get myself better." A rare disease?

the orthopedic surgeries, disc herniations, and pelvic instability that

Self-advocacy and integrated health care made it possible for Zingman to finish her medical residency, and after watching her slowly rehabilitate

## herself, Zingman's EDS physician suggested she start her own practice

questions than answers.

devoted to treating the conditions. Today, Zingman is a physician specializing in orthopedics and preventive medicine, and her private practice in Silver Spring, MD treats many patients with EDS. For Zingman, injury prevention, provider education, and coordinated health care are all key to managing EDS. But she's among a tiny subset of providers who specialize in the suite of genetic syndromes. Even among

the small, but committed EDS community, the condition can present more

For example, the prevalence of the conditions are hotly contested; though

some estimate that 1 in 5,000 people have an EDS subtype, it's still considered a rare disease. One 2019 estimate of the hypermobile subtype found that 1 in every 500 people in Wales has that syndrome. But "since misdiagnosis is common," a spokesperson for the Ehlers-Danlos Syndrome Research Foundation says, "we believe the actual number is much higher." Nor is there a single treatment or cure for the condition, and awareness

can be lacking even among medical professionals. But the tide is slowly

turning in the world of EDS research and awareness. Today, the Ehlers-

Danlos Society recognizes 18 "Centers of Excellence" nationwide—facilities that meet strict criteria for patient-centered care, proficiency in the condition, and specialized EDS services. And as research on the conditions slowly mounts, more and more providers are becoming proficient at caring for patients with EDS. That wouldn't be possible without grassroots advocacy from EDS patients and caretakers committed to pushing research and treatment forward. Peer support ranges from a 50,000-user-strong subreddit to in-person

groups at hospitals and clinics. Patients who went without diagnoses or

effective treatments for years can direct one another to providers and

provide empathy and anecdotal evidence from their own experiences. But Zingman notes that without systemic changes in diagnosis, treatment, and patient-centered care, many patients with Ehlers-Danlos are likely to remain in the shadows. Nevertheless, Zingman, her colleagues, and many with EDS diagnoses note that even though EDS has no cure, it's both survivable and treatable. "Patients can live really productive, healthy lives," she says. One day, she hopes, medicine will catch up to patients' everyday experiences—and help

**SHARE** EMAIL TWEET

READ THIS NEXT

them thrive, one small step at a time.



Not enough is known about how the disease affects women, who are more likely than men to be overlooked—and more likely to develop the disease in mi... SCIENCE An aspirin a day may do

SCIENCE MIND, BODY, WONDER

in women is so

misunderstood

Why schizophrenia





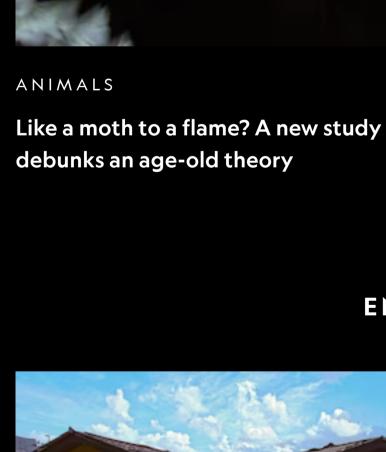


more harm than good

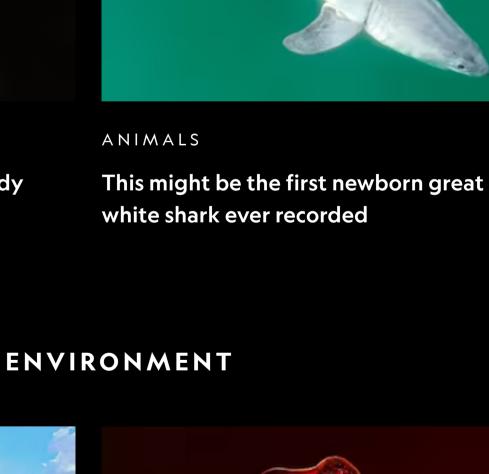
# **ANIMALS**

GO FURTHER

## ANIMALS These dragons don't breathe fire-but they're very real









ANIMALS



ΑI



Should we be preparing for Category 6 **HISTORY & CULTURE** 



These plants are beguiling—and they

ENVIRONMENT

have a taste for meat



# HISTORY & CULTURE



HISTORY & CULTURE Tollund Man: What we know about Europe's most famous bog body





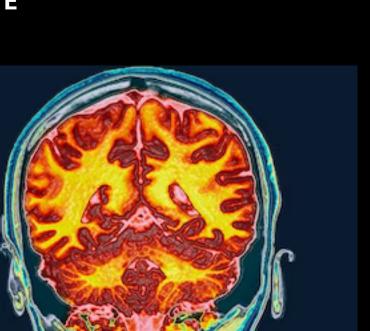
Dry winter skin? These 4 natural

ingredients can help.

SCIENCE



SCIENCE

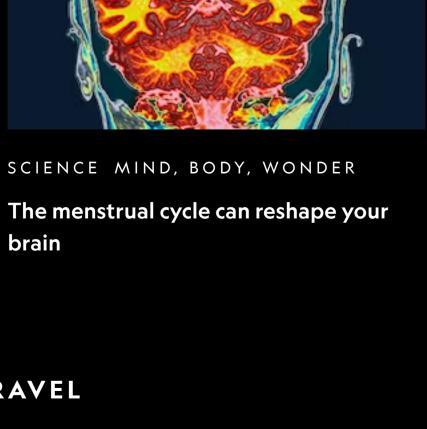








Saturn's 'Death Star' moon was hiding a **TRAVEL** 







Terms of Use



**OUR SITES** 

Nat Geo Home

Attend a Live Event



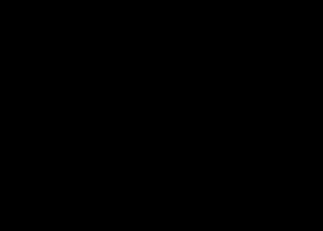


United States (Change)

Privacy Policy Your US State Privacy Rights Children's Online Privacy Policy Interest-Based Ads **About Nielsen Measurement** 

Book a Trip Inspire Your Kids Shop Nat Geo Visit the D.C. Museum Watch TV Learn About Our Impact **Support Our Mission** Masthead **Press Room** Advertise With Us

**Renew Subscription** Manage Your Subscription Work at Nat Geo Sign Up for Our Newsletters Contribute to Protect the Planet



FOLLOW US

Copyright © 1996-2015 National Geographic Society Copyright © 2015-2024 National Geographic Partners, LLC. All rights reserved

JOIN US

Subscribe

**Customer Service**