HeadWise™

A Voice for People with Migraine and Headache Disorders
From the National Headache Foundation

Through the Lens

Serene Branson a year after her Grammy-night migraine attack

6 WAYS TO SEIZE THE DAY—WITH CAUTION

Extreme Makeover

How to migraine-proof your home

Testing, Testing

The risks and benefits of clinical trials

PLUS

THE FIBROMYALGIA-MIGRAINE CONNECTION

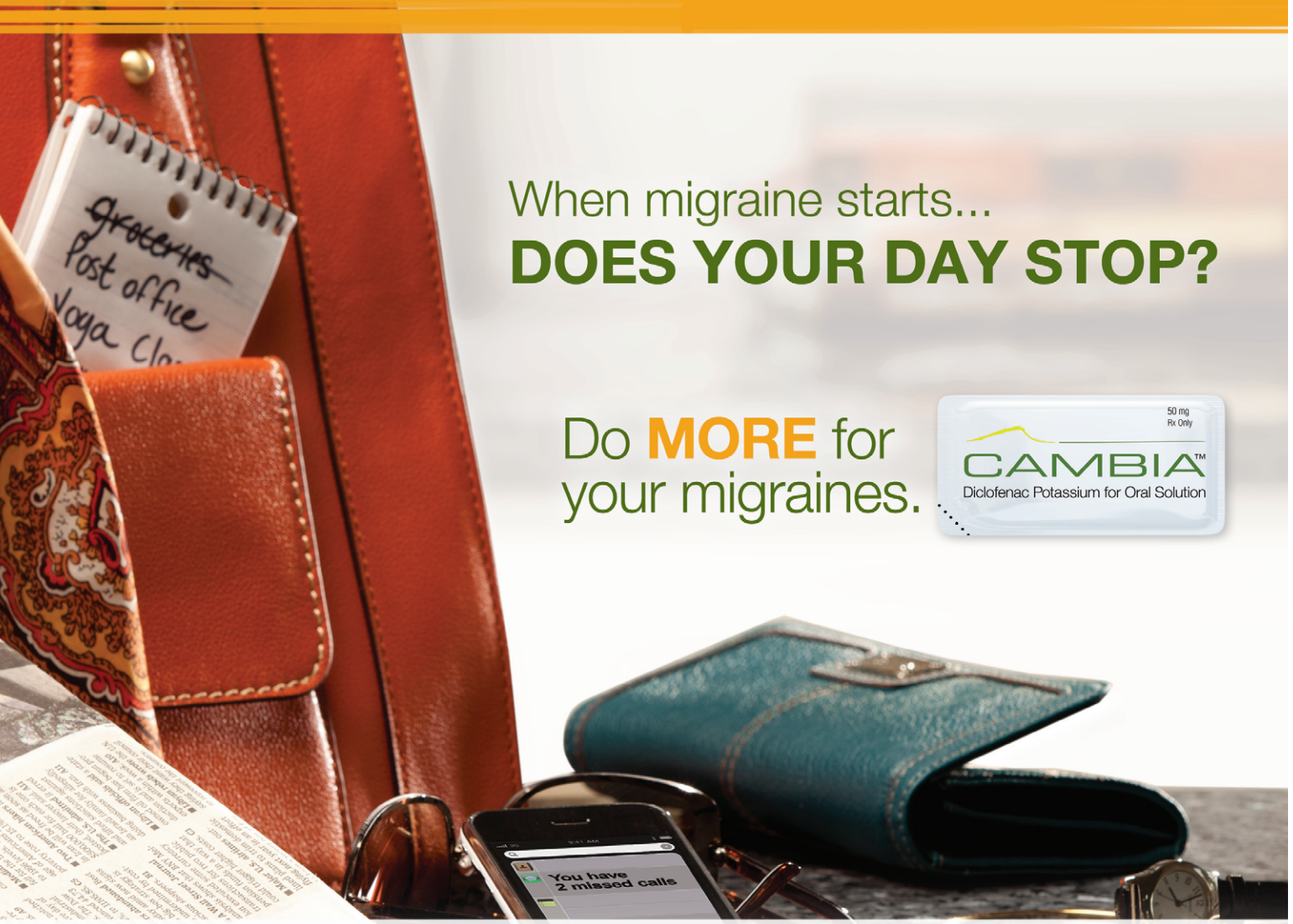
YOUR DOCTOR ON CALL, ONLINE

HEADACHES ON THE BATTLEFIELD

$6.99

Volume 2, Issue 1 • 2012
www.headaches.org

NATIONAL HEADACHE FOUNDATION



Ask your doctor about CAMBIA. To learn more visit www.CambiaRx.com.

CAMBIA is a prescription medicine for migraine attacks in adults. It does not prevent or lessen the number of migraines you have, and it is not for other types of headaches.

Important Safety Information

CAMBIA is a non-steroidal anti-inflammatory drug (NSAID). NSAIDs may increase your chance of a heart attack or stroke that can lead to death. This chance is higher with longer use of NSAID medicines and in people who have heart disease. CAMBIA should never be used right before or after certain heart surgeries.

NSAID medicines can also cause stomach and intestine problems, such as ulcers and bleeding, which can happen without warning and may cause death. This risk increases with use of steroids (corticosteroids), blood thinners (anticoagulants), smoking, alcohol use, older age, and for those in poor health.

CAMBIA should be used at the lowest dose possible and for the shortest time needed.

Tell your doctor if you:

- Are pregnant or may become pregnant, or are breast-feeding
- Have asthma, hives, or other allergic reactions with aspirin, diclofenac, other NSAIDs, or any medicines
- Suffer from "aspirin triad," ie, aspirin allergy, nasal polyps, and asthma
- Have a history of stomach ulcers or bleeding in your stomach or intestines
- Have kidney or liver problems
- Have chest pain, shortness of breath, irregular heartbeats, fluid retention, high blood pressure, or have a headache different from your usual migraine

Also tell your health care provider about all the medicines you take, such as prescription and nonprescription medicines, including acetaminophen, diuretics, ACE inhibitors, thiazides, antibiotics, antiepileptics, aspirin, or any anticoagulant medicines (such as warfarin, Coumadin®, or Jantoven®). Also tell your health care provider about all the vitamins and herbal supplements you take. CAMBIA and other medicines may affect each other, causing side effects or altering the way each medicine works.

Possible serious side effects of CAMBIA include heart attack, stroke, high blood pressure, heart failure from body swelling (fluid retention), kidney problems including kidney failure, bleeding and ulcers in the stomach and intestines, low red blood cells (anemia), life-threatening skin reactions, life-threatening allergic reactions, liver problems including life-threatening liver failure, and asthma attacks in people who have asthma. Common side effects of CAMBIA include nausea and dizziness.

Get emergency help right away if you have any of the following symptoms of heart attack or stroke: shortness of breath or trouble breathing, chest pain, swelling of your face or throat, weakness in one part or one side of your body, or slurred speech. Stop CAMBIA and call your health care provider right away if you experience nausea that seems out of proportion to your migraine, stomach pain, sudden or severe pain in your belly; if you vomit blood; if you have blood in your bowel movement or it is black and sticky like tar; if you experience itching, skin rashes, or blisters with fever, yellow skin or eyes, swelling of your arms and legs or hands and feet, unusual weight gain, flu-like symptoms; if you are more tired or weaker than usual; or if you have any other side effects that bother you or do not go away.

These are not all the side effects with NSAID medicines. Talk to your health care provider for more information about NSAID medicines, and consult the Medication Guide and Prescribing Information for additional information about CAMBIA's risks.

The health information provided here is not intended to replace discussions with a health care provider. Your health care provider weighs the risks and benefits based on your individual characteristics to determine whether CAMBIA is right for you.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Please see accompanying Medication Guide on the next page.

NAUTILUS Neurosciences

CAMBIA
Diclofenac Potassium for Oral Solution

MEDICATION GUIDE
CAMBIA (Cam-be-ā or Cam-bē-a)
(diclofenac potassium for oral solution)

Read the Patient Information that comes with CAMBIA before you start taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with your doctor about your medical condition or your treatment.

What is the most important information I should know about CAMBIA?

CAMBIA, which contains diclofenac, (a non-steroidal anti-inflammatory drug or NSAID), may increase your chance of a heart attack or stroke that can lead to death.

This chance is higher:

- with longer use of NSAID medicines
- in people who have heart disease

NSAID medicines, such as CAMBIA, should never be used right before or after a heart surgery called a "coronary artery bypass graft" (CABG).

NSAID medicines, such as CAMBIA, can cause ulcers and bleeding in your stomach and intestines at any time during treatment.

Ulcers and bleeding:

- can happen without warning symptoms
- may cause death

The chance of a person getting an ulcer or bleeding increases with:

- the use of medicines called steroid hormones (corticosteroids) and blood thinners (anticoagulants)
- longer or regular use
- smoking
- drinking alcohol
- older age
- having poor health

CAMBIA should only be used:

- exactly as prescribed
- at the lowest dose possible for your treatment
- for the shortest time needed

What is CAMBIA?

CAMBIA is a prescription medicine used to treat migraine attacks in adults. It does not prevent or lessen the number of migraines you have, and it is not for other types of headaches. CAMBIA contains diclofenac potassium (a non-steroidal anti-inflammatory drug or NSAID).

How should I take CAMBIA?

Take CAMBIA exactly as your healthcare provider tells you to take it.

Take 1 dose of CAMBIA to treat your migraine headache:

- remove one single dose packet from a set of three packets
- open packet only when you are ready to use it
- empty contents of packet into 1 to 2 ounces (2 to 4 tablespoons) of water
- mix well and drink the water and powder mixture
- throw away empty packet in a safe place and out of the reach of children
- taking CAMBIA with food may cause a reduction in effectiveness compared to taking CAMBIA on an empty stomach
- do not take more CAMBIA than directed by your healthcare provider. In case of overdose, get medical help or contact a Poison Control Center right away

Who should not take CAMBIA?

Do not take CAMBIA:

- right before or after heart bypass surgery. See "What is the most important information I should know about CAMBIA?"
- if you have or have had an asthma attack, hives, or other allergic reaction with aspirin, diclofenac, or any other NSAID medicine

Before you take CAMBIA, tell your healthcare provider about all your medical conditions, including if you:

- have a history of stomach ulcer or bleeding in your stomach or intestines
- have kidney or liver problems
- have any allergies to any medicines
- have chest pain, shortness of breath, irregular heartbeats
- are pregnant, think you might be pregnant, or are trying to become pregnant. CAMBIA should not be used by pregnant women, especially during the last 3 months of pregnancy unless directed by your healthcare provider to do so. CAMBIA may cause problems in your unborn child or complications during your delivery
- are breastfeeding or plan to breastfeed. It is not known if CAMBIA passes into your breast milk. You and your doctor should decide if you will take CAMBIA or breastfeed. You should not do both
- have a headache that is different from your usual migraine

Tell your doctor about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements.

CAMBIA and other medicines may affect each other, causing side effects. CAMBIA may affect the way other medicines work, and other medicines may affect how CAMBIA works.

Especially tell your doctor if you take:

- aspirin
- any anticoagulant medicines (warfarin, Coumadin, Jantoven)

Know the medicines you take. Keep a list of your medicines and show it to your doctor and pharmacist when you get a new medicine.

What are the possible side effects of CAMBIA?

Serious side effects include:

- heart attack
- stroke
- high blood pressure
- heart failure from body swelling (fluid retention)
- kidney problems including kidney failure
- bleeding and ulcers in the stomach and intestine
- low red blood cells (anemia)
- life-threatening skin reactions
- life-threatening allergic reactions
- liver problems including life-threatening liver failure
- asthma attacks in people who have asthma

Get emergency help right away if you have any of the following symptoms of heart attack or stroke:

- shortness of breath or trouble breathing
- chest pain
- swelling of your face or throat
- weakness in one part or one side of your body
- slurred speech

Common side effects include:

- nausea
- dizziness

Stop CAMBIA and call your healthcare provider right away if you have any of the following symptoms:

- nausea that seems out of proportion to your migraine
- stomach pain
- sudden or severe pain in your belly
- vomit blood
- blood in your bowel movement or it is black and sticky like tar
- itching
- skin rash or blisters with fever
- yellow skin or eyes
- swelling of your arms and legs, hands and feet
- unusual weight gain
- more tired or weaker than usual
- flu-like symptoms

Tell your healthcare provider if you have any side effects that bother you or do not go away.

These are not all the side effects with NSAID medicines. Talk to your healthcare provider or pharmacist for more information about NSAID medicines.

Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store CAMBIA?

- store CAMBIA in a dry place at room temperature between 59° to 86°F (15° to 30°C)
- keep CAMBIA and all medicines out of reach of children

General information about CAMBIA

- medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use CAMBIA for a condition for which it was not prescribed
- do not give CAMBIA to other people, even if they have the same problem you have. It may harm them
- this Medication Guide contains the most important information about CAMBIA. If you would like more information, talk with your healthcare provider. You can ask your healthcare provider for information written for healthcare professionals
- for more information call Nautilus Neurosciences, Inc. at 877-874-2440 (weekdays 9 AM to 5 PM EST) or through our web site at www.nautilusneurosciences.com

What are the ingredients in CAMBIA?

Active ingredients: diclofenac potassium

Inactive ingredients: aspartame (equivalent to 25 mg phenylalanine), flavoring agents (anise and mint), glyceryl behenate, mannitol, potassium bicarbonate, and saccharin sodium

Rx only

Issued June 2009

Nautilus Neurosciences, Inc.
Bedminster, NJ 07921
United States of America

This Medication Guide has been approved by the U.S. Food and Drug Administration.

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NAUTILUS Neurosciences

Thank You to Our Organizers

ON APRIL 14, THE NHF HOSTS ITS 26TH ANNUAL FUNDRAISING BENEFIT AT THE ADLER PLANETARIUM IN CHICAGO. This year's event, titled "Galaxy of Hope: Raising Headache Awareness to New Heights" features an elegant dinner, silent auction, cocktails and dancing. The winner of the raffle for a 2012 automobile will also be announced (see page 6 to enter). The NHF would like to acknowledge the co-chairs of the event, June Barnard and her daughter, Katie S. Biggs.

Mrs. Barnard was born and raised in Chicago. She is married to Ronald Barnard, executive director of the Driskill Foundation. After 20 years of banking experience in the city, June Barnard became the owner of a business specializing in props and décor from fake food to fake snow. She dedicated her leadership skills and passion to serve for two consecutive years as co-chairperson of the City Lights Gala sponsored by the Fourth Presbyterian Church of Chicago. In addition she has served as chairperson of the Rita Hayworth Gala supporting efforts to cure Alzheimer's disease. Barnard believes that, although leadership is important to the success of a benefit, it is passion for the people who are suffering and awareness of the cause that will make the difference.

Mrs. June Barnard and Ms. Katie S. Biggs

Ms. Biggs was born and raised in Chicago. Educated at Southern Illinois University, she spent her early career in marketing/public relations and event planning. After 10 years and when her two children were still very young, she decided to change directions and acquired a Master's in Teaching from National Louis University and later a Master's in Administration from Benedictine University. Over the past 12 years, Biggs has taught English, directed plays and handled the Performing Arts Center marketing at Naperville North High School in Naperville, Ill. Biggs currently lives in Naperville with her two children, Katelyn and Nathan.

To learn more about the benefit, visit www.headaches.org or contact the NHF at 888-NHF-5552.

Search and Rescue

You already spend a good portion of your day online. Why not make it count? GoodSearch.com can help you turn your everyday searches and shopping sprees into donations to the NHF.

GoodSearch is a Yahoo-powered search engine that donates half of its sponsored search revenue to user-designated charities, nonprofit organizations or schools. It works just like any other search engine, and it is free for users.

All you have to do is go to the GoodSearch home page and choose the NHF as your favorite cause. Then, whenever you search or shop online, 50 percent of the revenue generated by sponsored search advertisers will go to the NHF.

Turn your searches into NHF donations at www.goodsearch.com.

Volunteer as a Patient Advocate

Headache disorders are one of the most pervasive neurological issues seen by health care professionals worldwide. According to the World Health Organization, tension-type headaches alone affect about 70 percent of adult males and 80 percent of adult females.

In contrast, the NHF has just 8 employees and 16 board members. To bridge this numbers gap and connect with the millions of headache sufferers who are desperate for information about the spectrum of headache disorders, the NHF is calling on community-based volunteerism, or patient advocates.

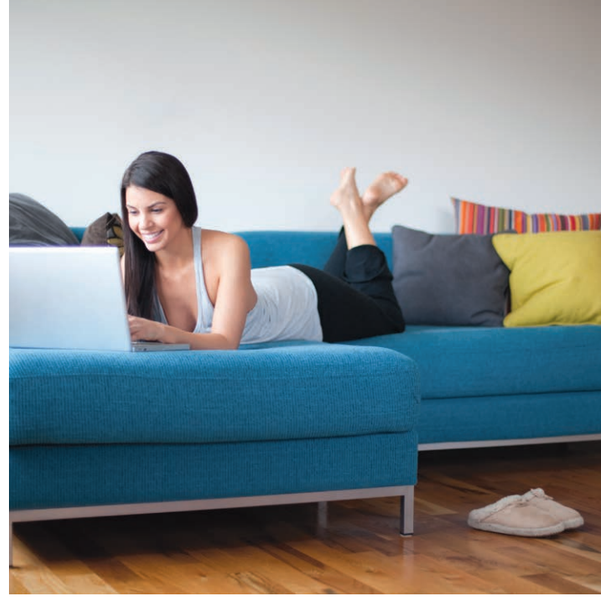
In 2012, the NHF will start building volunteer groups in cities where the organization has held regional conferences and in locations where patients have contacted the NHF asking for help. The goal of these groups is to de-stigmatize headache disorders by increasing general awareness and aiding advocacy efforts.

"Migraine impacts the community as a whole, whether through lost time as a parent, spouse or friend, or loss of profits from a sick employee," says Heather Zanitsch, St. Louis patient advocate coordinator for the NHF. "I would like to see the community work with migraineurs peacefully instead of rolling their eyes every time someone must necessarily 'complain' of an attack and go home to rest or wait for their medications to take effect."

The NHF is looking for more volunteers to help spread the word about headache disorders. This can include working with insurance companies or reaching out to headache sufferers with positive support and encouragement.

"I think it's important to build a relationship with the public that is geared toward patients as active participants in their own care and knowledge," Zanitsch says. "That's what we need—a patient base that stands firm in their knowledge of what they are dealing with."

If you want to become an NHF patient advocate, contact the (888) NHF-5552 or e-mail Abraham Penrod at apenrod@headaches.org.



Chat with a Headache Specialist

The NHF is hosting several live chats in 2012, offering members and visitors to the NHF website a chance to interact with headache specialists in an online environment. In December and January, the NHF hosted three chats, which drew 20 to 30 participants per session. Each chat is assigned a topic and a headache specialist who answers the questions in real-time. So far chats have featured such topics as cluster headache and stroke. Remaining topics for 2012 include:

- Sinus and tension headache
- Sports and headache
- Pregnancy and headache
- Sleep and headache
- Sexual headache
- Medication overuse
- Fibromyalgia
- Daily chronic migraine
- Eye and headache
- And more!

The number of participants for each chat is limited. To be a part of an upcoming chat, register on the NHF website at www.headaches.org/content/nhf-chat-room.

HELPING HAND

If you or someone you love is experiencing a headache disorder and doesn't know where to turn, try the NHF Physician Finder. Just go to **www.headaches.org/physicians**, and you can search by name, location or certification.

Head Wise™

The National Headache Foundation • www.headaches.org

Mission
The National Headache Foundation exists to enhance the healthcare of individuals with headache. It is a source of help to their families, physicians and allied healthcare professionals who treat them, and to the public. The NHF accomplishes its mission by providing educational and informational resources, supporting headache research, and advocating for the understanding of headache as a legitimate neurobiological disease.

Vision
The National Headache Foundation is the premier educational and informational resource for individuals with headache, their families, physicians, allied healthcare professionals, and health policy decision makers. The NHF advocates for those experiencing headache. The organization employs the most effective means to disseminate information and knowledge about headache.

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Send Us Your Feedback
We welcome your comments. Please indicate your name, address and phone number. Letters may be edited for clarity and space.

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Executive Chairman
National Headache Foundation
820 North Orleans, Suite 411
Chicago, IL 60610
Email: sdiamond@headaches.org

Head Wise is sent to members of the National Headache Foundation. For information on membership, call 888-NHF-5552.

Check out additional *Head Wise* and NHF content at www.headaches.org.

Robert Dalton has resigned his position with the National Headache Foundation. Dr. Seymour Diamond, in his role as executive chairman, has temporarily undertaken the duties of the executive director.

NATIONAL HEADACHE FOUNDATION

Buy A Raffle Ticket Today

Support the National Headache Foundation

Only 700 tickets are available!

The winner will have a choice of:

2012 Chevy Equinox ~ The crossover, a 2012 Jeep Wrangler, a 2012 Ford Escape
(base prices are approximately $23,556 - $24,875), or $15,000 cash!

NATIONAL HEADACHE FOUNDATION CAR RAFFLE OFFICIAL RULES
The winning ticket will be drawn and announced at the NHF Annual Fundraising Benefit on Saturday, April 14, 2012. The winner need not be present to win. Winner has the choice of a 2012 Chevy ~ Equinox, a Jeep ~ Wrangler, or a Ford ~ Escape. Cash option (in lieu of car) is $15,000.00. To purchase a ticket, please complete this form. You must indicate your full name, address and daytime telephone number. Mail this form to NHF, 820 N. Orleans Street, Suite 411, Chicago IL 60610-3132, or fax to 312-640-9049.

Remember to include your credit card information, check, or money order for $100 per ticket made payable to the National Headache Foundation. If you prefer you may call 1-888-NHF-5552 with your credit card information to reserve your ticket. (Credit cards accepted are Amex, Discover, MC, and VISA.)

ELIGIBILITY: You must be 18 years or older to purchase a raffle ticket and a resident of the United States. Only one individual (1) may be identied as the purchaser of a raffle ticket. Federal, state and local laws and regulations apply. Void where prohibited. All purchases are final and non-refundable. By entering the raffle, the ticket purchaser acknowledges that he/she is aware of and agrees with the Raffle Official Rules.

DRAWING: A maximum of 700 tickets will be sold. All entries must be RECEIVED by 5:00pm CT on Friday, April 13, 2012. In the event there are remaining tickets that have not been sold, they will be available for purchase at the NHF's Benefit to be held at the Adler Planetarium on Saturday, April 14, 2012 up until 30 minutes prior to the random drawing that will occur at or about 10:00pm CT.

TAXES: The winner is solely responsible for all state and local costs and charges, including taxes, title, transfer fee and registration. The winner is also responsible for any and all federal, state and local income or excise taxes, fees, assessments and like charges associated with the prize. The IRS has taken the position that amounts paid for chances to participate in raffles, lotteries or similar programs are not gifts and, therefore, the price of the ticket does not qualify as a deductible charitable contribution.

You have a 1-in-700 chance of winning! These are great odds, so complete this entry now!

Name _____ Daytime Phone _____

Address _____ Email Address _____

City _____ State _____ Zip _____

Enclosed is my payment for _____ ticket (s) at $100 each = _____

Method of Payment:

❒ Check ❒ Money Order (made payable to National Headache Foundation) ❒ AmEx ❒ Discover ❒ MasterCard ❒ VISA

Card # _____ Expiration Date _____

Signature _____

National Headache Foundation, 820 N. Orleans, Suite 411, Chicago, IL 60610
Toll-Free: 888-NHF-5552 Fax: 312-640-9049 Email: info@headaches.org

By submitting this form you represent that you accept the official rules and certify that you are 18 years or older and that you are a resident of the United States.

National Headache Foundation, 820 N. Orleans, Suite 411, Chicago, IL 60610
Toll-Free: 888-NHF-5552 Fax: 312-640-9049 Email: info@headaches.org

NATIONAL HEADACHE FOUNDATION

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DEPARTMENTS

IN EVERY ISSUE

COVER PHOTOGRAPHY BY ANDREAS LARSSON

DID YOU KNOW?
Mark Twain knew the value of headache relief. A headache sufferer himself, he wrote in *Following the Equator*, "While (headache) is at its sharpest, (treatment) seems a bad investment; but when relief begins, the unexpired remainder is worth $4 a minute."

Head2Head

There's strength in numbers. Connect with the NHF online community on Facebook and Twitter.

Found on Facebook

We have to pick and choose what's important to us. What are you unwilling to sacrifice with chronic illness?

Jessica P. – Family. I've had to reduce the rest of my social circle, but I save any good energy I have left for my husband. He spends so much time taking care of me that he deserves all the good moments.

Drew N. – Family and friends. I will drag myself through pain, nausea etc., to give my kids a normal existence.

Rebecca L. – Giving my kids as normal of a childhood as possible. That means [pushing myself] to pick them up from school, making sure they get to afterschool activities, going to school functions and making sure we can still eat together as a family. Thank God for my supportive husband who helps me make these things a reality for us.

Pam D. – Reading. It hurts, but I can't live without it.

How are you feeling right now?

Deb B. – This is the first day in five days that I haven't had a migraine. I am afraid to move around too much but I gotta get stuff done.

Dawn B. – Five weeks and two days with a migraine. I went back to my neuro this morning, and they don't know what else to do. They're going to send me to physical therapy for my neck and back and see if that helps my head.

Kelly W. – I have chronic tension headaches, but really good the last week, strangely. I'm on holiday, drinking lots, exercising and relaxing.

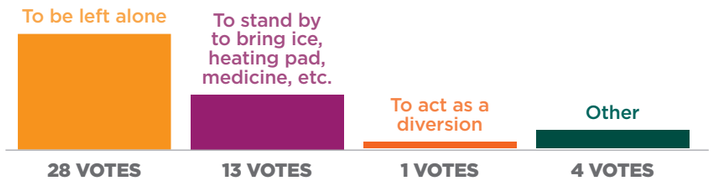
Overheard on Twitter at #Migraine

@nikkivargs Tomorrow I shall be productive. I SHALL TRY. But nevermind because I never will anyway. Good Night. **#migraine**

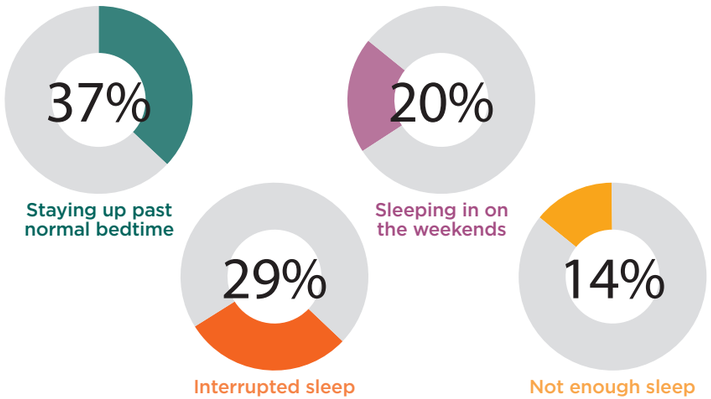
@yosoythandie About to take a Nyquil & knock myself out. **#migraine**

@extemporaneous My very last **#migraine** pill. Tried to hold off, but have to take it now. It's like leaving me without a net.

When you are in the middle of an attack or in extreme pain, what would you most like from your friends or family members?



Sleep can sometime affect changes in headache. Which of the following has the strongest impact on your headache?



Looking for answers? Try an NHF expert. Email info@headaches.org to send us your question, and it might appear in our Reader Mail section.

By the Numbers

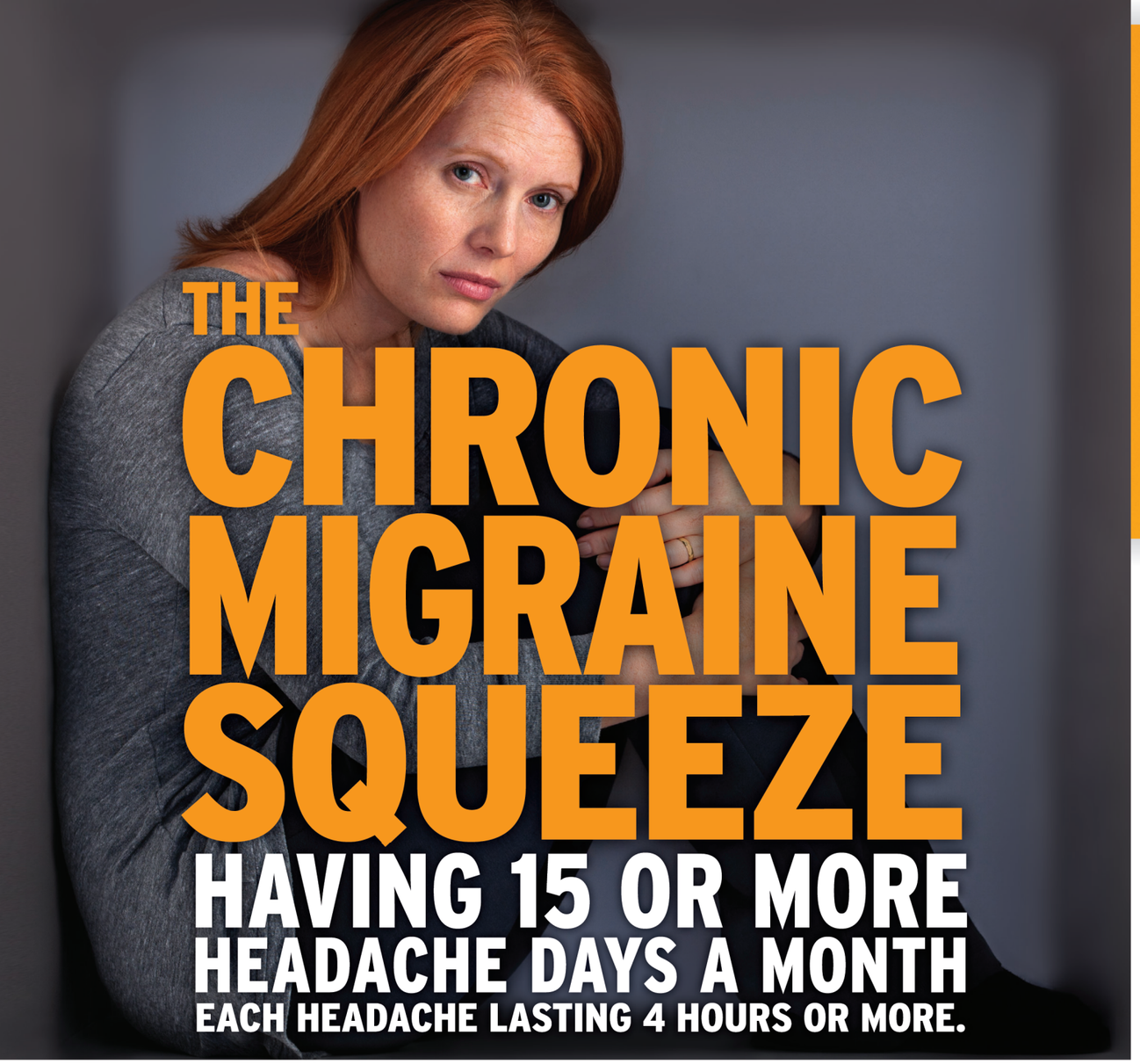
4,239 people like the NHF on Facebook

1,060 people are following the NHF on Twitter

Follow us on Twitter: http://twitter.com/NHF

Like us on Facebook: www.facebook.com/pages/National-Headache-Foundation/26557489636

Visit the NHF: www.headaches.org



IMPORTANT SAFETY INFORMATION

BOTOX® may cause serious side effects that can be life threatening. Call your doctor or get medical help right away if you have any of these problems any time (hours to weeks) after injection of BOTOX®:

- **Problems swallowing, speaking, or breathing,** due to weakening of associated muscles, can be severe and result in loss of life. You are at the highest risk if these problems are pre-existing before injection. Swallowing problems may last for several months.
- **Spread of toxin effects.** The effect of botulinum toxin may affect areas away from the injection site and cause serious symptoms including: loss of strength and all-over muscle weakness, double vision, blurred vision and drooping eyelids, hoarseness or change or loss of voice (dysphonia), trouble saying words clearly (dysarthria), loss of bladder control, trouble breathing, trouble swallowing. **If this happens, do not drive a car, operate machinery, or do other dangerous activities.**

There has not been a confirmed serious case of spread of toxin effect away from the injection site when BOTOX® has been used at the recommended dose to treat chronic migraine.

Do not take BOTOX® if you: are allergic to any of the ingredients in BOTOX® (see Medication Guide for ingredients); had an allergic reaction to any other botulinum toxin product such as *Myobloc*® (rimabotulinumtoxinB), *Dysport*® (abobotulinumtoxinA), or *Xeomin*® (incobotulinumtoxinA); have a skin infection at the planned injection site.

ALLERGAN

ISN'T IT TIME TO REDUCE THOSE HEADACHE DAYS?

BOTOX® IS PROVEN TO SIGNIFICANTLY REDUCE HEADACHE DAYS EVERY MONTH.

- BOTOX® is the first and only FDA-approved, preventive treatment for people with Chronic Migraine.
- BOTOX® prevents up to 9 headache days a month (versus up to 7 for placebo).
- BOTOX® is injected every three months by your doctor.

BOTOX® may be right for you if you have migraine with 15 or more headache days a month with each headache lasting 4 hours or more. BOTOX® is not approved for adults with migraine who have 14 or fewer headache days a month.

Learn more at BOTOXChronicMigraine.com and find a doctor who treats Chronic Migraine patients. Because every day is important.

BOTOX® is a prescription medicine that is injected to prevent headaches in adults with chronic migraine who have 15 or more days each month with headache lasting 4 or more hours each day in people 18 years or older. It is not known whether BOTOX® is safe or effective to prevent headaches in patients with migraine who have 14 or fewer headache days each month (episodic migraine).

BOTOX® onabotulinumtoxinA

The dose of BOTOX® is not the same as, or comparable to, another botulinum toxin product.

Serious and/or immediate allergic reactions have been reported. These reactions include itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Tell your doctor or get medical help right away if you experience any such symptoms; further injection of BOTOX® should be discontinued.

Tell your doctor about all your muscle or nerve conditions such as amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), myasthenia gravis, or Lambert-Eaton syndrome, as you may be at increased risk of serious side effects including severe dysphagia (difficulty swallowing) and respiratory compromise (difficulty breathing) from typical doses of BOTOX®.

Human albumin and spread of viral diseases. BOTOX® contains albumin, a protein component of human blood. The potential risk of spreading viral diseases (eg, Creutzfeldt-Jakob disease [CJD]) via human serum albumin is extremely rare. No cases of viral diseases or CJD have ever been reported in association with human serum albumin.

Tell your doctor about all your medical conditions, including if you: have or have had bleeding problems; have plans to have surgery; had surgery on your face; weakness of forehead muscles, such as trouble raising your eyebrows; drooping eyelids; any other abnormal facial change; are pregnant or plan to become pregnant (it is not known if BOTOX® can harm your unborn baby); are breastfeeding or plan to breastfeed (it is not known if BOTOX® passes into breast milk).

Tell your doctor about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal products. Using BOTOX® with certain other medicines may cause serious side effects. **Do not start any new medicines until you have told your doctor that you have received BOTOX® in the past.**

Especially tell your doctor if you: have received any other botulinum toxin product in the last 4 months; have received injections of botulinum toxin such as *Myobloc*®, *Dysport*®, or *Xeomin*® in the past (be sure your doctor knows exactly which product you received); have recently received an antibiotic by injection; take muscle relaxants; take an allergy or cold medicine; take a sleep medicine; take anti-platelets (aspirin-like products) or anti-coagulants (blood thinners).

Other side effects of BOTOX® include: dry mouth, discomfort or pain at the injection site, tiredness, headache, neck pain, and eye problems: double vision, blurred vision, decreased eyesight, drooping eyelids, swelling of your eyelids, and dry eyes.

For more information refer to the Medication Guide or talk with your doctor.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please refer to full Medication Guide including Boxed Warning on the following page.

Learn more and find a doctor near you, BOTOXChronicMigraine.com

MEDICATION GUIDE

BOTOX® and BOTOX® Cosmetic (Boe-tox) (onabotulinumtoxinA) for Injection

Read the Medication Guide that comes with **BOTOX** or **BOTOX Cosmetic** before you start using it and each time it is given to you. There may be new information. This information does not take the place of talking with your doctor about your medical condition or your treatment. You should share this information with your family members and caregivers.

What is the most important information I should know about BOTOX and BOTOX Cosmetic?

BOTOX and BOTOX Cosmetic may cause serious side effects that can be life threatening, including:

- **Problems breathing or swallowing**
- **Spread of toxin effects**

These problems can happen hours, days, to weeks after an injection of BOTOX or BOTOX Cosmetic. Call your doctor or get medical help right away if you have any of these problems after treatment with BOTOX or BOTOX Cosmetic:

1. Problems swallowing, speaking, or breathing. These problems can happen hours, days, to weeks after an injection of BOTOX or BOTOX Cosmetic usually because the muscles that you use to breathe and swallow can become weak after the injection. Death can happen as a complication if you have severe problems with swallowing or breathing after treatment with **BOTOX** or **BOTOX Cosmetic**.

- People with certain breathing problems may need to use muscles in their neck to help them breathe. These people may be at greater risk for serious breathing problems with **BOTOX** or **BOTOX Cosmetic**.
- Swallowing problems may last for several months. People who cannot swallow well may need a feeding tube to receive food and water. If swallowing problems are severe, food or liquids may go into your lungs. People who already have swallowing or breathing problems before receiving **BOTOX** or **BOTOX Cosmetic** have the highest risk of getting these problems.

2. Spread of toxin effects. In some cases, the effect of botulinum toxin may affect areas of the body away from the injection site and cause symptoms of a serious condition called botulism. The symptoms of botulism include:

- loss of strength and muscle weakness all over the body
- double vision
- blurred vision and drooping eyelids
- hoarseness or change or loss of voice (dysphonia)
- trouble saying words clearly (dysarthria)
- loss of bladder control
- trouble breathing
- trouble swallowing

These symptoms can happen hours, days, to weeks after you receive an injection of **BOTOX** or **BOTOX Cosmetic**.

These problems could make it unsafe for you to drive a car or do other dangerous activities. See "What should I avoid while receiving **BOTOX** or **BOTOX Cosmetic**?"

There has not been a confirmed serious case of spread of toxin effect away from the injection site when **BOTOX** has been used at the recommended dose to treat chronic migraine, severe underarm sweating, blepharospasm, or strabismus, or when **BOTOX Cosmetic** has been used at the recommended dose to treat frown lines.

What are BOTOX and BOTOX Cosmetic?

BOTOX is a prescription medicine that is injected into muscles and used:

- to treat leakage of urine (incontinence) in adults with overactive bladder due to neurologic disease.
- to prevent headaches in adults with chronic migraine who have 15 or more days each month with headache lasting 4 or more hours each day.
- to treat increased muscle stiffness in elbow, wrist, and finger muscles in adults with upper limb spasticity.
- to treat the abnormal head position and neck pain that happens with cervical dystonia (CD) in adults.
- to treat certain types of eye muscle problems (strabismus) or abnormal spasm of the eyelids (blepharospasm) in people 12 years and older.

BOTOX is also injected into the skin to treat the symptoms of severe underarm sweating (severe primary axillary hyperhidrosis) when medicines used on the skin (topical) do not work well enough.

BOTOX Cosmetic is a prescription medicine that is injected into muscles and used to improve the look of moderate to severe frown lines between the eyebrows (glabellar lines) in adults younger than 65 years of age for a short period of time (temporary).

It is not known whether **BOTOX** is safe or effective in people younger than:

- 18 years of age for treatment of urinary incontinence
- 18 years of age for treatment of chronic migraine
- 18 years of age for treatment of spasticity
- 16 years of age for treatment of cervical dystonia
- 18 years of age for treatment of hyperhidrosis
- 12 years of age for treatment of strabismus or blepharospasm

BOTOX Cosmetic is not recommended for use in children younger than 18 years of age.

It is not known whether **BOTOX** and **BOTOX Cosmetic** are safe or effective to prevent headaches in people with migraine who have 14 or fewer headache days each month (episodic migraine).

It is not known whether **BOTOX** and **BOTOX Cosmetic** are safe or effective for other types of muscle spasms or for severe sweating anywhere other than your armpits.

Who should not take BOTOX or BOTOX Cosmetic?

Do not take **BOTOX** or **BOTOX Cosmetic** if you:

- are allergic to any of the ingredients in **BOTOX** or **BOTOX Cosmetic**. See the end of this Medication Guide for a list of ingredients in **BOTOX** and **BOTOX Cosmetic**.
- had an allergic reaction to any other botulinum toxin product such as *Myobloc®*, *Dysport®*, or *Xeomin®*
- have a skin infection at the planned injection site
- are being treated for urinary incontinence and have a urinary tract infection (UTI)
- are being treated for urinary incontinence and find that you cannot empty your bladder on your own (only applies to people who are not routinely catheterizing)

What should I tell my doctor before taking BOTOX or BOTOX Cosmetic?

Tell your doctor about all your medical conditions, including if you:

- have a disease that affects your muscles and nerves (such as amyotrophic lateral sclerosis [ALS or Lou Gehrig's disease], myasthenia gravis or Lambert-Eaton syndrome). See "What is the most important information I should know about **BOTOX®** and **BOTOX® Cosmetic**?"
- have allergies to any botulinum toxin product
- had any side effect from any botulinum toxin product in the past
- have or have had a breathing problem, such as asthma or emphysema
- have or have had swallowing problems
- have or have had bleeding problems
- have plans to have surgery
- had surgery on your face
- have weakness of your forehead muscles, such as trouble raising your eyebrows
- have drooping eyelids
- have any other change in the way your face normally looks
- have symptoms of a urinary tract infection (UTI) and are being treated for urinary incontinence. Symptoms of a urinary tract infection may include pain or burning with urination, frequent urination, or fever.
- have problems emptying your bladder on your own and are being treated for urinary incontinence
- are pregnant or plan to become pregnant. It is not known if **BOTOX** or **BOTOX Cosmetic** can harm your unborn baby.
- are breast-feeding or plan to breastfeed. It is not known if **BOTOX** or **BOTOX Cosmetic** passes into breast milk.

Tell your doctor about all the medicines you take, including prescription and nonprescription medicines, vitamins and herbal products. Using **BOTOX** or **BOTOX Cosmetic** with certain other medicines may cause serious side effects. **Do not start any new medicines until you have told your doctor that you have received BOTOX or BOTOX Cosmetic in the past.**

Especially tell your doctor if you:

- have received any other botulinum toxin product in the last four months
- have received injections of botulinum toxin, such as *Myobloc®* (rimabotulinumtoxinB), *Dysport®* (abobotulinumtoxinA), or *Xeomin®* (incobotulinumtoxinA) in the past. Be sure your doctor knows exactly which product you received.
- have recently received an antibiotic by injection
- take muscle relaxants
- take an allergy or cold medicine
- take a sleep medicine
- take anti-platelets (aspirin-like products) and/or anti-coagulants (blood thinners)

Ask your doctor if you are not sure if your medicine is one that is listed above.

Know the medicines you take. Keep a list of your medicines with you to show your doctor and pharmacist each time you get a new medicine.

How should I take BOTOX or BOTOX Cosmetic?

- **BOTOX** or **BOTOX Cosmetic** is an injection that your doctor will give you.
- **BOTOX** is injected into your affected muscles, skin, or bladder.
- **BOTOX Cosmetic** is injected into your affected muscles.
- Your doctor may change your dose of **BOTOX** or **BOTOX Cosmetic**, until you and your doctor find the best dose for you.
- **Your doctor will tell you how often you will receive your dose of BOTOX or BOTOX Cosmetic injections.**

What should I avoid while taking BOTOX or BOTOX Cosmetic?

BOTOX and **BOTOX Cosmetic** may cause loss of strength or general muscle weakness, or vision problems within hours to weeks of taking **BOTOX** or **BOTOX Cosmetic. If this happens, do not drive a car, operate machinery, or do other dangerous activities.** See "What is the most important information I should know about **BOTOX** and **BOTOX Cosmetic**?"

What are the possible side effects of BOTOX and BOTOX Cosmetic?

BOTOX and BOTOX Cosmetic can cause serious side effects. See "What is the most important information I should know about **BOTOX** and **BOTOX Cosmetic**?"

Other side effects of BOTOX and BOTOX Cosmetic include:

- dry mouth
- discomfort or pain at the injection site
- tiredness
- headache
- neck pain
- eye problems: double vision, blurred vision, decreased eyesight, drooping eyelids, swelling of your eyelids, and dry eyes.
- urinary tract infection in people being treated for urinary incontinence
- inability to empty your bladder on your own and are being treated for urinary incontinence.
- allergic reactions. Symptoms of an allergic reaction to **BOTOX** or **BOTOX Cosmetic** may include: itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Tell your doctor or get medical help right away if you are wheezing or have asthma symptoms, or if you become dizzy or faint.

Tell your doctor if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of **BOTOX** and **BOTOX Cosmetic.** For more information, ask your doctor or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

General information about BOTOX and BOTOX Cosmetic:

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide.

This Medication Guide summarizes the most important information about **BOTOX** and **BOTOX Cosmetic**. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about **BOTOX** and **BOTOX Cosmetic** that is written for healthcare professionals. For more information about **BOTOX** and **BOTOX Cosmetic** call Allergan at 1-800-433-8871 or go to www.BOTOX.com.

What are the ingredients in BOTOX and BOTOX Cosmetic?

Active ingredient: botulinum toxin type A

Inactive ingredients: human albumin and sodium chloride

Issued: 08/2011

This Medication Guide has been approved by the U.S. Food and Drug Administration.

Manufactured by: Allergan Pharmaceuticals Ireland a subsidiary of: Allergan, Inc.
2525 Dupont Dr.
Irvine, CA 92612

U.S. Patents 5,437,291; 5,714,468; 6,667,041; 6,683,049; 6,896,886; 6,974,578; 7,001,602; 7,429,387; and 7,449,192

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ALLERGAN

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reader mail

You ask. We answer.

Tired of searching the Internet for answers? It's time to learn from those in the know. In every issue of *Head Wise,* our experts respond to reader-submitted questions about migraine and headache disorders.

THE NIACIN VERDICT

Can you tell me if niacin supplements help migraineurs? I've also heard of others taking magnesium but don't know anything about it.

– Karen F.

Niacin, or vitamin B3, which is widely used for lowering cholesterol, has been also reported to help both migraine and tension-type headaches. At least nine groups of researchers have published their findings. However, none of these researchers conducted rigorous scientific studies, which typically compare the effect of an active substance with a placebo or a sugar pill. Some of these researchers gave niacin intravenously and some orally, some just to migraine patients and some to groups with various types of headaches. All these reports found niacin to be free of serious side effects, although many people report a flushing sensation. A flush-free preparation is also available. The bottom line is that it may be worth trying niacin after trying other supplements, such as magnesium, CoQ10 and riboflavin, which have stronger scientific evidence for their efficacy.

– Alexander Mauskop, MD, New York Headache Center, New York City

EAT YOUR BANANAS

Does a shortage of potassium cause migraine headaches?

– Phil W.

Potassium deficiency can cause headaches, and in those who are prone to migraines, it can cause migraines. Potassium deficiency is a much less common cause of migraines than a deficiency of another mineral: magnesium. Many foods contain potassium and it is much better absorbed than magnesium. Potassium deficiency can occur as a side effect of taking certain drugs, such as diuretics (e.g., water pills) and other blood pressure medications, certain antibiotics, and painkillers (e.g., ibuprofen). In addition to headaches, potassium deficiency can cause fatigue, constipation, muscle cramps and abnormal heart rhythms. Too much potassium can also cause problems, including stomach pain, irregular or slow heart beat, muscle weakness and chest pains. A routine blood test can tell you if you have a deficiency of potassium and if taking a supplement will help your headaches.

– Alexander Mauskop, MD, New York Headache Center, New York City

FROM THE NECK UP

I have been on Depakote and amitriptyline for migraines since about 1996. I kept the headaches reasonably under control (I've had them since 1985) with those two preventive medications and strict lifestyle management (strict diet, regular exercise, enough sleep and stress management). I do, however, have moderately severe arthritis of the neck at C3, C4 from a motor vehicle accident in the 1970s.

For the past year I have had a migraine every day except four intermittent days; I can't figure out what I could be doing wrong. I avoid rebound headaches by alternating my use of Norgesic forte with Tylenol 500, or when necessary, Imitrex or Amerge. I'm careful not to take more than the prescribed amount of any medication.

Would Neurontin be of help to me? Has Depakote ceased to be effective? Or could the arthritis in my neck have finally won the battle I've been having with it? My neck pain is excruciating at the end of a workday, especially if I've had a headache. Neck pain is one of the precursors to a migraine for me.

– Marlys B.

There may be several contributing factors to the deterioration you've noticed in your migraine control. Occasional patients do "get used" to their preventive medications, a condition we call "tachyphylaxis." In the time that you've been on these medications, Depakote has also been released in generic forms, and some patients recognize a difference between the brand and generic medications via headache escalation. Despite your rotation of acute anti-migraine medications, you may still be experiencing "rebound" headaches, which we now refer to as medication overuse headaches, if you are treating more frequently than 10 to 12 days per month with any acute medication, including Imitrex and Amerge. The potential development of arthritis in your cervical spine may also be driving your headache frequency higher. Gabapentin (Neurontin) may be a reasonable choice if the neck is a contributing factor, and although the data supporting its benefits in migraine prevention are not as extensive as that with either Depakote or amitriptyline, you might benefit from a change. Regardless of a change in preventive medication, it is imperative that the sum total of acute headache treatments be limited to 10 to 12 days per month.

Could the arthritis in my neck have finally won the battle I've been having with it?

– Robert G. Kaniecki, MD, University of Pittsburgh

POST-PREGNANCY PUZZLER

I'm writing to seek some insight or advice about where to go next. Seven months ago, I gave birth to twins. About five weeks after their delivery, I got a headache that still hasn't gone away. The headache is with me 24/7. It varies in intensity and usually isn't severely painful. More often, it's actually weird feelings in my head—pressing, tightening, but nothing like a "traditional" headache. It's more horribly annoying than painful. I'm able to function as I have to, but it's diminishing my quality of life. I've gone to two headache specialists and both have tried treating me with nortriptyline at various doses; I am now about to start 75 mg/daily.

My original thought was that this was somehow related to my pregnancy and IVF that I used to become pregnant. However, I've seen an endocrinologist and spoken with my reproductive endocrinologist, and it doesn't appear to be a hormonal

issue. I have also seen an ear, nose and throat specialist; eye doctor; and acupuncturist but have not found any answers or relief. I've had an MRI and CT scan and both appear normal. I've also been tested for Lyme disease (negative). Obviously, I'm extremely frustrated and fearful that I am going to be living with this forever. Do you have any advice on where to go next? Have you heard of anything like this?

– Hilary M.

Although we certainly do not have great detail on your headache, it is most likely that you suffer from either chronic tension-type headache or new daily persistent headache (NDPH). Both conditions are characterized by global or bilateral dull, pressing, tightening pain that is mild to moderate in intensity. Both are otherwise relatively featureless, without nausea, vomiting, visual or sensory changes, or significant sensitivities to light or noise. Both are poorly responsive to preventive medication, with NDPH failing all medical options. The difference often lies in the onset: Chronic tension-type headache typically develops in individuals who possessed a prior history of at least some tension-type headaches, with evolution into a daily pattern occurring over months or even years; NDPH arises abruptly in those without prior headache history and plateaus within 72 hours into a 24/7 phenomenon. Headache specialists are indeed your most appropriate avenue for care with either of these conditions.

– Robert G. Kaniecki, MD, University of Pittsburgh

BOTOX BUSTER

I have suffered from chronic paroxysmal hemicranias (CPH) for six years. Although I do get relief from indomethacin, I am wondering if there are any other treatment options that have shown success in CPH patients. My doctor suggested calcium channel blockers, but because they cause constipation and low blood pressure, it is not an option for me.

I saw the recent letter about daily headaches in the Sept. 16 NHF *News to Know* member e-newsletter. Botox was a suggestion. Could this work for CPH?

– Cindy W.

Botox has been shown to be effective in patients with one subset of chronic daily headache, specifically chronic migraine. Another subset of chronic daily headache, chronic tension-type headache, has not shown any benefit from Botox administration. There is no significant data for Botox in CPH, and we have no clinical experience with its use in this condition either. Indomethacin responsiveness is a hallmark of CPH, and in fact is required to arrive at that diagnosis. It has been my experience that indomethacin works dramatically for this disorder while other medical treatments are almost always ineffective.

– Robert G. Kaniecki, MD, University of Pittsburgh

Do you have a question for the NHF experts? Send it to info@headaches.org, and it could appear in our next issue.

Hormone Helper

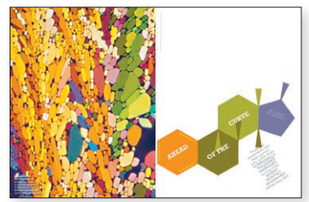
I'm a long-time subscriber to NHF newsletters and I've just received *Head Wise*. I was so excited to read two of your lead articles: "The Perfect Complement" and "Ahead of the Curve." I have been a migraine sufferer for over 37 years, worked with a headache specialist for over 20 and now I'm in menopause, which was always dangled as a carrot in front of me—the promise that menopause would bring migraines to an end. Well, they just got worse.

In 2009, I was miserable, having 16 migraines a month and being on and off steroids. A friend told me about a seminar she attended by a local doctor who had left years of traditional medicine behind to study holistic medicine. I made an appointment and had my first consultation. As we talked, I told him that the only time I had been headache free was when I was pregnant and nursing my three children. He said that this could be a key. Hormones, like progesterone, go way up during pregnancy and nursing; as you wean, they start to go down to a new normal. As you stated in your article, a woman's hormones fluctuate constantly during the month.

I had lab work done and it proved the doctor's theory: My hormone levels were in the basement, so low. He prescribed natural, bioidentical hormone therapy and within one month I saw dramatic improvement. I have continued this therapy for 18 months now and am so excited to report that I'm averaging about four migraines per month and those I've noted were triggered by weather changes (barometric actually, which is hard because I live in Cleveland, Ohio). I want to help others with migraines. I know the pain and I've lived only half my life because of migraines.

– PAT H.

HW: Hey, Pat, glad you like the mag. If you're interested in helping other migraineurs, consider becoming a patient advocate (see page 3 for details).



If you have comments or suggestions about *Head Wise,* send them to info@headaches.org or post them on the NHF Facebook page.

Screen Play

Rural patients receive access to headache specialists through "teleheadache" technology

By Jackie Walker Gibson

IMAGINE EXPERIENCING painful daily headaches, knowing something isn't quite right, but the primary care physician in your rural town isn't sure how best to treat your pain, and the nearest headache specialist is six hours away. For residents of rural areas, this scenario is, unfortunately, a common one.

"We have patients who come from as far away as the Upper Peninsula which is 4 to 6 hours away—that's a problem," says Edmund Messina, MD, director of the Michigan Headache Clinic in East Lansing, Mich.

Timothy Smith, MD, a headache specialist at the Mercy Clinic Headache Center, is vice president of research at Mercy Health, a system that includes both large metropolitan hospitals and small rural clinics. He says that many small towns in the health system don't have a neurologist, let alone a headache specialist. "These patients suffer a lot and don't have much access to specialty care," Smith says.

To ensure that his rural residents get the best possible headache treatment and maximize their time in the office, Dr. Messina uses a video nurse to take patients' medical history remotely, prior to an office visit. The technology called Arbor Medicus®, which Dr. Messina developed, utilizes an artificial intelligence language which simulates an expert's reasoning, to better ask detailed and personalized questions.

For patients with a long medical history, the program could take up to two hours to complete—but it gives the patient time to sit and think about their condition, unlike an office visit in which the patient has little time to remember all relevant information. Data is stored in a secure server, and the patient receives a form with their answers at the end, which he or she can then e-mail to his or her doctor. When the patient visits the office for a neurological exam, Dr. Messina goes through his or her answers in person.

"Right now we still have them come in to see us face-to-face for that initial visit, but in the future we hope to use the same technology to automate return visits so they don't have to come in to have that follow-up conversation," Dr. Messina says.

In St. Louis, Dr. Smith uses remote video technology (which he calls "teleheadache" technology) to do consultations with patients at a rural clinic in Rolla, Mo., using two-way streaming video.

"I'll be the first to say that in an ideal world, the best medical care involves a face-to-face meeting," Dr. Smith says. "But in some of these remote places where face-to-face isn't possible, this turns out to be the best way to do consultations. Otherwise, these patients would have to drive 120 miles to St. Louis to find treatment."

The process goes something like this: A physician in Rolla orders the consultation with a headache specialist at Mercy Health in St. Louis. The patient then goes to the community clinic in Rolla where a nurse checks her in, checks her vital signs, takes her medical history and assigns her to an exam room. Instead of the specialist walking into the room, a screen is turned on and the patient can see the specialist. The headache physician has access to the patient's medical record electronically and, with the assistance of a nurse at the Rolla clinic, can listen to the patient's heart and lungs using a stethoscope and other equipment hooked up to the telemedicine unit. At the end of the visit, the specialist can electronically submit a prescription to the patient's community pharmacy and can send educational information to the patient that will print out in the patient's exam room.

"I just consulted on a case using remote technology this week," Dr. Smith says. "The woman was desperate and didn't have headache resources in her community. When we hung up the connection she was very encouraged, and I think we have a good chance at helping her recover."

Dr. Smith says many patients question why he doesn't just use Skype or other available video chat services for consultations. Although the use of Skype for health care interactions is an evolving issue, Dr. Smith points out that for medical consultations, a more secure service must be employed. Mercy's teleheadache system uses encrypted pathways to ensure patient privacy. And all of this is at virtually no extra cost to the patient. In most cases, a facility charge of $20 to $25 is billed to insurance so there is no extra cost to the patient to use the technology.

The National Headache Foundation funded Mercy's research analysis and seeks to learn from Mercy's use of the equipment to see if it's an effective way to treat rural patients. Such projects could be expanded to other communities in the future, though Dr. Smith says it would likely require staff in a rural clinic reaching out to larger hospitals for alliances.

Dr. Messina says patients are hungry for these types of systems, particularly headache patients who are desperate for information and willing to go online if it means they can connect with a physician. But, he warns, "the technology is less important than getting the right content out of the conversation." If an online visit or virtual history taker can help a patient share the right information and help a physician to make a proper diagnosis, it could be worthwhile.

"This is going to be the functionality of the future," Dr. Smith says, "and it's just starting to take hold." HW

To access Arbor Medicus, go to www.headaches.org, click "Resources," and select "Tools for sufferers."

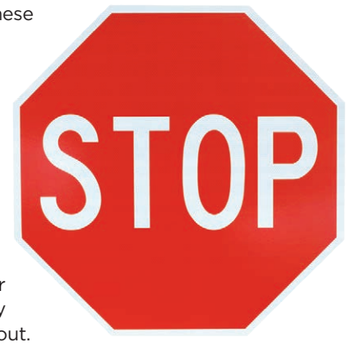
DID YOU KNOW?

Headache affects 37 to 51 percent of elementary age children and 57 to 82 percent of high school students.

STOP AND GO

THERE ARE TWO WAYS A MIGRAINE CAN STOP—through abortive means (e.g., medication) or naturally. But for most migraineurs, there is a clear stopping point when a migraine ends, according to Andrew H. Ahn, MD, PhD, and K.C. Brennan, MD, who discussed the disorder in the January 2012 issue of *Headache*.

So how does it stop on its own? Ahn and Brennan reference findings from the October 2010 issue of the *Journal of Neuroscience,* which points to the very structures involved in forming migraines. These structures are part of "feedback loops," or circuits on which the pain comes and goes. The circuits play a game of opposites, bringing the pain closer and further away based on migraine triggers. If stress is a trigger for you, then your migraine may stop when the stress is relieved. On the opposite end, if the release of stress triggers your head pain, then the migraine may stop when you're most stressed out.

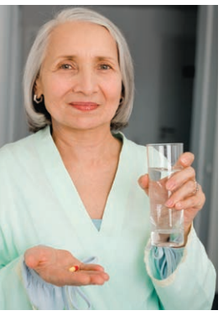


While researchers know of a variety of triggers that will bring the pain closer and further away, they are only aware of a few activities that can stop the pain altogether. Two of these are natural responses to pain, the most common being sleep. "The most striking (because the effects can be almost instantaneous) is [vomiting]," write Ahn and Brennan. While researchers haven't yet figured out why these involuntary actions bring a cessation of pain, Ahn and Brennan hope that soon the "circuits may reveal their secrets."

The Sugar Pill Effect

You've heard of placebos. They're the sugar pills, the magic crackers—capsules or foods that contain no medication and are used as the control in clinical trials. Scientists in the past have debated the ethics and efficacy of allowing people to think they are receiving medication when they are not.

But recent research suggests there is a true psychological and neurophysiological response to placebos even when the patient knows he or she is being duped. Studies say placebos work because 1) it involves a physician caring for a patient, a relationship that patients need in order to feel they've received help, 2) positive beliefs about outcomes can lead to good outcomes and 3) repetition works—if we think the sugar pill worked the first time, we'll get relief each time we use it. According to commentary published in the December 2011 issue of *JAMA*, "developments in research on placebos suggest that the time has come to translate the science of placebo effects and knowledge regarding techniques for promoting placebo responses into clinical practice and medical education."



BY THE **NUMBERS**

Girls who experience a traumatic brain injury (TBI) are more likely to have headaches following the injury than boys, according to a December 2011 study published in the journal *Pediatrics*. Adolescents are also more likely to have headaches following such an injury compared to younger children.

43% of children reported headaches three and 12 months after mild TBI

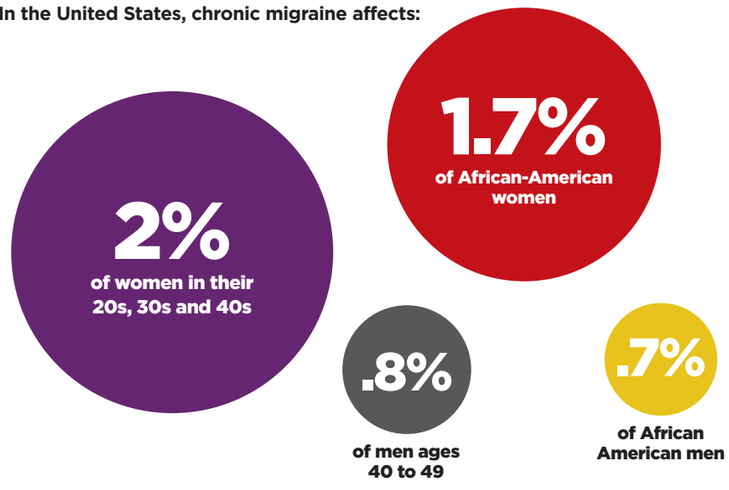
37% of children reported headaches after moderate to severe TBI

59% of girls reported headaches after mild TBI

FAST FACT:
Younger patients are more likely to experience pain relief after receiving a placebo than older patients, according to a study published in the July 2009 issue of the journal *Cephalalgia*.

DEMOGRAPHICS MOST AFFECTED BY CHRONIC MIGRAINE:

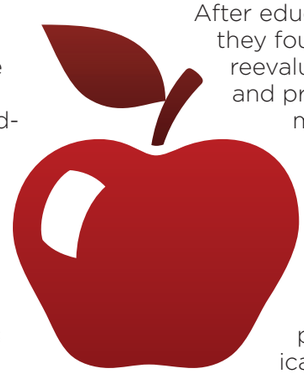
In the United States, chronic migraine affects:



Source: Dawn C. Buse, PhD study funded by a National Headache Foundation grant from Ortho-McNeil Neurologics (http://www.headaches.org/content/nhf-news-know-january-2012#four).

An Ounce of Prevention

IN THE NETHERLANDS, where 25 percent of patients with migraine are eligible for preventive treatment, only 8 to 12 percent use preventive medications, according to a recent study published in the January 2012 issue of the *Canadian Medical Association Journal*. Researchers set out to examine whether educating primary care physicians about headache disorders would cause the doctors to proactively address head pain (rather than just prescribe triptans as pain relievers).



After educating the primary care physicians, they found that many of the physicians reevaluated their headache patients and prescribed appropriate preventive medications. But the change in prescribing habits had little effect on patients. They still had headaches, and they still took triptans.

The conclusion? Although education seemed to help the primary care physicians with their prescribing habits, preventive medications did not seem to effectively reduce headaches for patients.

HIV AND HEADACHE

Complaints of headache among HIV/AIDS patients are common. According to research published in the November 2011 issue of the journal *Headache*, more than 50 percent of HIV/AIDS patients experience headache. Of those with headache, 85 percent meet the criteria for migraine.

The research suggests that HIV/AIDS patients are 13 times more likely to experience chronic migraines than the general population. For patients with HIV, researchers found a correlation between an increased number of infected CD4 cells—which is how HIV severity is measured—and increased severity of the headaches those patients experienced. Researchers wrote that they hope these findings will lead to improved treatment and reduced medical costs for HIV/AIDS patients with headache.

Migraine-Proof Your Home

How to create a trigger-free haven

By Kelly Rehan

HOME SHOULD BE A REFUGE—and that's especially true for migraine sufferers. Unfortunately, your abode can also house a host of migraine triggers, from harsh fluorescent lights to rooms coated in thick air fresheners. By keeping a few simple tips in mind, your home can go from being your worst enemy to your best defense against migraine pain.

KILL THE LIGHTS

Bright light is the biggest household harm for migraine sufferers, according to Edmund Messina, MD, director of the Michigan Headache Clinic in East Lansing, Mich. If you live in a place that gets plenty of bright sunshine, you may want to consider covering your windows with dark, heavy drapes that can block out aggravating light.

"Having a light-free room is really useful when you're in the middle of a bad migraine," Dr. Messina says.

But natural lighting isn't the only migraine trigger. Among the first steps to creating a migraine-free zone is banishing all fluorescent lighting from your house. Soft lighting is best, Dr. Messina says. He suggests swapping blinding fluorescents with warmer incandescent light bulbs.

Like Messina, Gary Ruoff, MD, who practices at Westside Family Medical Center in Kalamazoo, Mich., says lighting is the most important factor to consider when creating a migraine-free space. Dr. Ruoff, who authored a patient education book titled *Knock Out Headaches*, to be released in September, has two simple rules for lighting in the home: not too bright and not flashing.

"You need lighting that isn't too bright, and you don't want chandeliers with 15 different bulbs that are flashing," Dr. Ruoff says. "Christmas tree bulbs that flash are bad, too."

Another trigger is the flickering lights on television, movie and computer screens, according to Seymour Diamond, MD, executive chairman of the National Headache Foundation and founder and director emeritus of the Diamond Headache Clinic in Chicago.

AIR FRESHENERS ARE NOT YOUR FRIEND

Odors are a major migraine trigger. A scent that might come across as perfectly pleasant for someone who doesn't have migraine can send a migraineur into a world of pain. Air fresheners, room deodorizers and scented candles shouldn't cross your threshold if you are a migraine sufferer, Dr. Messina says. And don't forget to rid your home of heavily fragrant soap, hand lotion, body wash, cologne and perfume.

Megan Downey, a web editor in Chicago, suffers chronic migraines. She says her migraines are primarily caused by sudden weather changes, but scents are another major culprit. "Certain scents do cause my migraines, but I think it differs for everyone," Downey says. "For me, it's really strong floral scents. So I never get really flowery candles, perfumes or lotions."

In addition to perfumes and lotions, you'll want to be careful if your child comes home asking for help with an art project: Glues and paints can upset people with migraine, Dr. Messina says.

Cleaning products also pose a minefield of problems for migraine sufferers. Choose products that are unscented or very lightly scented. Carpet cleaners are notorious for causing problems, Dr. Messina says, as they are typically put into the carpet and then vacuumed out—which causes the product to erupt into the air, leaving a strong fragrance behind.

If this year's spring cleaning involves home renovations, keep your head in mind. The glue and formaldehyde used in new carpet and the odor of a fresh coat of paint can quickly cause pain, Dr. Messina says. "Home renovations can bother migraineurs, so they may need to arrange to stay somewhere else to avoid the triggers," he says.

Rob Melnychuk/Taxi/Getty Images

CREATE YOUR OWN ESCAPE

The first thing Downey does when she has a migraine is seek out the one place in her home where she can shut the world away.

"Depending on what kind of migraine I get, I can be really sensitive to light, so I tend to stay in our darkest room of the condo, which happens to be the bedroom," she says. "Any movement can set off pangs and pangs of pain, so I stay laying down as much as possible. If none of that works, sometimes just sitting in the shower under hot water helps."

Having a place to escape to when you have a migraine is essential, Dr. Messina says. It should be a place that's free of bright light, loud noises and activity, he says. It could be a bedroom, den, basement—anywhere where you can get away from the world and its many migraine triggers to appropriately deal with your pain. Think of this place as your personal relaxation room. "If you can take refuge in a room, block out bright light, put on headphones and listen to music," Dr. Messina says, "you can emerge from your cave refreshed and ready to take on the world again." HW

Anatomy of a Relaxation Room

A relaxation room should be a room where a migraineur can go and not be bothered for 30 minutes a day, Dr. Ruoff says. "A relaxation room is a haven for the person to be away from activity," he says. "To make it really work, the family has to buy into this—spouse, kids, everyone."

To create the ideal relaxation room, Dr. Ruoff makes the following recommendations:

Essential Features:

- Easy chair
- Heavy drapes, shades or Venetian blinds to block out harsh light
- A lamp with three-way incandescent bulbs to appropriately control light
- A "do not disturb" sign for the door
- A music player to play soothing sounds

Off Limits:

- Cell phones
- TVs
- Computers

Off-the-Beaten-Path Home Fixes

Light, sound and smell are obvious fixes in your quest to migraine-proof your home, but Dr. Ruoff has some lesser-known ways to create a truly healthy space:

Make friends with Mozart. If you suffer from migraines and are a fan of rap, hip-hop or any music with a strong beat, you might want to embrace a new musical genre—classical. "Chopin and Mozart's beats are very soothing," Dr. Ruoff says, "and music therapy is good for the migraine patient."

Paint in pastels. Consider covering your walls in pastel paints, as glaring white paint can irritate migraineurs. Dr. Ruoff recommends green and yellow tones because of their happy feel (which can help combat depression, a common comorbidity of chronic migraine). But before you pick up a brush, remember that the smell of paint is a migraine trigger, so it's best to hire someone to do the job and stay out of the house until the fresh paint odor subsides.

Create a friendly fire. If you have a fireplace, make sure it's well ventilated to prevent heavy, ashy odors from filling your home. Also, opt for a gas-operated fireplace instead of a wood-burning model, as the strong smells created by wood can trigger a migraine.

By Jackie Walker Gibson

Headache on the Front Lines

Amid a war zone's disruptors and stressors, military servicemen and women find it tough to avoid headache.

WAR ZONES ARE RIFE WITH HEADACHE TRIGGERS. Migraineurs and headache sufferers are taught to maintain a consistent lifestyle. But on the front lines, it may not be possible to keep a regular sleep schedule or bury your face in a pillow when headache appears.

For military servicemen and women "in theater" (in the war zone), prevention and early treatment are key to avoiding chronic headache pain and staying on tour.

WAR ZONE WOES

There's no doubt that a war zone can trigger new headaches and worsen existing pain. According to research published in the June 2008 edition of *Headache*, 19 percent of troops surveyed during the last three months of a one-year combat tour in Iraq screened positive for migraine. Another 17 percent had probable migraine and 11 percent had non-migraine headache. Of those, only 5 percent had been diagnosed with migraine prior to deployment.

On the front lines where triggers are extreme, the threshold that puts one at risk for migraine "can get pushed lower and lower to where things that would never have triggered a headache back on Main Street are now triggering migraines," says Anne Calhoun, MD, CAPT/MC/USNR-Ret, partner and co-founder of the Carolina Headache Institute in Chapel Hill, N.C.

Dr. Calhoun says three of the most common factors that can transform episodic migraine into chronic daily headache or migraine are:

Stress: From the trauma of seeing someone injured to the emotional turmoil of being away from family, stress is a constant trigger in active duty. "If someone wanted to provoke a migraine, I couldn't think of better conditions than in a war zone in Afghanistan," says Marc Husid, MD, chief of neurology at Dwight D. Eisenhower Army Medical Center in Fort Gordon, Ga.

Insufficient sleep: Sleep disrupted by stress, noise, mortar attacks and early awakening can trigger migraine and chronic headache, Dr. Calhoun says.

Medication overuse: According to Dr. Husid, an army medic's first response to headache pain is often to treat the service member with painkillers. But frequent use of such pain meds can lead to medication overuse headache. Dr. Calhoun stresses another often-overused drug: caffeine. "It can convert the occasional episodic migraine stateside to chronic daily headache in theater," she says.

Miss Maggie/Flickr/Getty Images

40 PERCENT
Increase in migraine diagnosis after a group of soldiers completed a tour of duty in Iraq or Afghanistan

16 PERCENT
Percentage of women who developed migraine, among a group of soldiers in the war zone with a history of anxiety or depression

< 1/3
Number of soldiers who return to active duty after they are sent home due to headache

$2.4 MILLION
Amount of congressional funds invested in four Department of Defense projects specific to migraine and post-traumatic headache since 2007

Sources: Cephalalgia, *U.S. Department of Defense,* Washington Post

According to Dr. Husid and Dr. Calhoun, other headache triggers on the front lines include exposure to extreme temperatures, irregular meal times, explosions at close proximity, burning pits of trash or bodily waste, carrying heavy packs and body armor, and wearing helmets that put pressure on the head.

AVOIDING EVACUATION

Unfortunately, military culture tends to dissuade headache sufferers from getting the help they need. "There are some infantry units where any complaint is a sign of weakness," Dr. Husid says. Dr. Calhoun notes that when she was in active duty, going on sick call could put a "black mark on your career."

But Dr. Calhoun and Dr. Husid agree that if your head pain is worsening, it is best to find treatment to avoid turning an episodic headache into a chronic condition that may result in eventual disqualification from active service. Headaches are among the top reasons for medical evacuation of military personnel from Iraq and Afghanistan according to research from the journal *Cephalalgia*, published online in October 2011.

To help reduce the effect of stress, Dr. Husid suggests learning relaxation techniques prior to deployment that can be used during downtime. "There are myriads," Dr. Husid says, "mindful breathing, various meditation techniques, tai chi or yoga, listening to quiet music—any way to invoke relaxation as opposed to going out and getting a couple of drinks with the guys."

Dr. Calhoun adds that lying on your back in bed should be reserved for sleeping, and earplugs could be used to block out noise. To preserve the sleep environment, it's best to avoid watching TV or reading while lying in bed during the day. Naps should also be avoided so as to keep sleep schedules consistent.

As for treating chronic headaches, Dr. Calhoun recommends soldiers eliminate caffeine intake, avoid treating mild headaches so that more intense pain will respond to treatment, and avoid overuse of acute headache medication by limiting use to no more than two days a week. Dr. Husid suggests soldiers ask about other treatments such as acute and preventive medications, Botox injections, and acupuncture, which some medics are now providing in theater.

"There's always been this gung-ho, all in it sort of attitude in the military, which is an important part of readiness and a fighting spirit—but there needs to be some middle ground where people who are truly having problems can mention it, get those problems treated, and get back to duty," says Dr. Calhoun. Ultimately, Dr. Calhoun says she hopes headache sufferers in war zones will remember that many historical military leaders had migraine, from Julius Caesar and Napoleon to Ulysses S. Grant, and "we don't think of them as whiners." HW

If you are a soldier looking for help, visit the NHF War Veterans Resource Initiative at www.headaches.org/warveterans.

By Richard Wenzel, PharmD

Rhyme and Reason

Q How do I know which preventive medication is appropriate for migraine prevention?

MORE THAN 20,000 PRESCRIPTION DRUGS are currently available in the United States. Based on my experience, 50 to 75 of these medications are commonly used to treat migraine. These drugs can be divided into two basic groups: "acute" medications, which patients consume only when they experience a migraine attack; and "preventive" drugs, which patients ingest every day in an effort to decrease attack frequency, severity and duration.

Virtually every day someone asks me, "Why did my doctor prescribe this drug for me?" What patients really want to know is why their physician picked *this* particular medication, as opposed to some other drug. Patients are typically most concerned about preventive drugs because these agents are used every day, which increases awareness about the drug including adverse effects, costs, effectiveness and other factors. I encourage all patients to discuss with their doctor the reason(s) why a specific drug is prescribed, because only the physician knows the precise answer.

Nevertheless, physicians take a number of common principles into account when selecting a drug, especially when it comes to preventive medications. It is important for physicians treating headache conditions to start by reviewing the patient's complete medical history. This information can help illuminate which medications are suitable or inappropriate.

Ideally, physicians can prescribe one drug to treat more than one illness. For example:

- High blood pressure is one of the most common risk factors for heart disease and one of the most common chronic illnesses in the United States. It affects millions of people, including migraineurs. It is appropriate for these patients to be prescribed migraine medications that also help lower blood pressure and improve heart function; such medications include beta-blockers (e.g., propranolol or timolol) or calcium channel blockers (e.g., verapamil).
- If a person suffers with seizures and migraines, then anti-seizure drugs (e.g., topiramate or divalproex) would be excellent choices.
- People with depression and migraine are candidates for numerous anti-depressant drugs (e.g., venlafaxine or fluoxetine).
- A person with insomnia and migraine could benefit from a sedating medication such as the tricyclic antidepressant agents (e.g., amitriptyline).
- Conversely, someone who is sleepy throughout the day and has migraine might benefit from a drug that causes anxiousness (e.g., buproprion).
- Individuals with depression, insomnia and migraine could benefit from a drug that reduces depression and causes sedation (e.g., nortriptyline or amitriptyline).

I have highlighted some of the scenarios frequently encountered when treating migraine, but the list of possible illnesses is lengthy. The basic goal is to maximize the number of diseases treated with each prescribed drug.

It is equally important for physicians to avoid certain medications based on the patient's condition. For example, the majority of migraine sufferers are women of childbearing age. If a woman is planning to get pregnant or becomes pregnant, then drugs incompatible with pregnancy must not be prescribed. The Food and Drug Administration assigns a pregnancy category rating to all medications (A, B, C, D or X). Ideally, only drugs ranked A or B would be used during pregnancy, with C drugs used only if the benefits outweigh the risks. Drugs ranked D (e.g., topiramate and divalproex) should be avoided during pregnancy except in extreme situations, while drugs ranked X (e.g., dihydroergotamine) are never to be used during pregnancy.

In another scenario, someone who needs high exercise tolerance, such as a marathoner, should avoid agents that lower blood pressure (e.g., beta-blocker or calcium channel blockers). If an individual already has problems with alertness and staying awake, then sedating drugs are not the best choice. Similarly, if someone suffers with anxiety, medications that can cause anxious feelings (e.g. buproprion) are poor choices. Again, numerous situations can exist, and I have only highlighted some frequent problems.

Physicians must also consider duration of action, or how often a drug must be consumed. People are more successful at consistently taking medication once a day than taking a drug that needs to be consumed two, three, or even four times per day. The majority of headache preventive drugs are available as once-a-day (some twice-a-day) formulations. To promote convenience, ask your physician to prescribe once-a-day medications whenever possible.

And of course, cost is an important factor. All medications cost money, although this cost can vary greatly. Your insurance coverage (if any) is important and this information should be shared with the physician. Ideally, the physician will ensure that your insurance agency will pay for the drug *before* you leave the physician's office with a prescription for the pharmacy; correcting insurance-coverage problems at the pharmacy counter is often a time-consuming and frustrating process that is best avoided. If you lack the ability to pay for medications, talk to a health care professional such as a physician or pharmacist—many pharmaceutical companies offer patient-assistance programs. Generally speaking, generic medications are equally effective but cheaper than brand name options. Use these if possible. Your health care professional can help direct you toward a medication that is less expensive but will help improve your illness.

Ultimately the question "Why did my doctor prescribe this drug for me?" is still best answered by your physician. But it's important to understand that a drug may or may not be selected based on how it can benefit (or worsen) your current condition. HW

RICHARD WENZEL, PharmD, is the staff pharmacologist at the Diamond Headache Inpatient Unit, Saint Joseph Hospital, Chicago, Ill.

Have a medication-related question? Send an e-mail to info@headaches.org and we may answer it in the magazine!

MAKING THE GOOD DAYS COUNT

How do you manage your good days and keep headache pain at bay? **Here are six simple strategies to make your pain-free days even better.**

By Jim Distasio

CHRIS WISE can count on experiencing up to five migraines per month, but it's the two dozen or so pain-free days that often push him to the brink.

The 24-year-old online marketing director for Guideline Central has two young children, too few triptans covered by his medical insurance, and a career that demands long hours in front of a computer and performance benchmarks—regardless of his condition.

"If I don't show results, I'm on the chopping block," Wise says. So when he encounters a day without a migraine, he overcompensates with 16-hour work marathons and weekends with his kids at Disney World or Universal Studios, both hour-long drives from his Daytona Beach, Fla., home.

"We're doing all of this crazy activity—going to a water park or theme park or museums—to make up for the fact that [my kids] are going to be stuck inside my house one day because I feel like crud," he says.

There's a temptation for migraineurs to do too much, to push too hard, to toss more fiery torches into the juggling act just because today is a day without pain. But there's always the danger of getting burned by overdoing it physically or mentally, and subsequently putting yourself at greater risk for migraine.

There's a temptation for migraineurs to do too much, to push too hard, to toss more fiery torches into the juggling act just because today is a day without pain.

For some people with migraine, there is a desire to push too hard on pain-free days to prove that they are not milking their situations on the days they physically can't live up to expectations, says Robert A. Nicholson, MD, a clinical psychologist with the Mercy Clinic Headache Center in St. Louis. "People with migraine have active, busy lives, trying to balance family responsibilities, social responsibilities and work responsibilities," Dr. Nicholson says. "On a day when they have a migraine, it is easy for them to become frustrated because of the migraine's impact on their lives. In turn, on days when they are migraine-free, they want to accomplish as much as possible."

But migraineurs should resist the urge to over-schedule themselves, and treat a good day as if it were delivered to their front door with a label reading, "Fragile: Handle with Care." Here are six strategies you can implement into your life to maximize quality time without veering into the danger zone.

1 Stay the Course

A day off from a migraine is a lot like one of those snow days you wished for when you were in school: Sure, it's a blast, but that doesn't mean you can stay outside in the cold all day building a snowman. To manage their condition, migraine sufferers fastidiously arrange their lives to avoid potential dangers, so even a much-needed reprieve shouldn't be an excuse to throw out your plan.

Dr. Nicholson likens migraineurs to diabetics who need to keep their bodies in balance even on days when their blood sugar is under control. "People with migraines may think it's OK to not think about lifestyle choices on the days they don't have migraine," Dr. Nicholson says. "But I tell patients that, given the way the body is designed and has adapted to the environment around them, it's important they be consistent with the way they live their lives."

That means remaining vigilant of potential triggers—such as stress, lack of sleep or certain foods—and recognizing your limitations.

Previous page photo by Lori Adamski Peek/The Image Bank/Getty Images

2 Dine, Don't Just Dash

When you're migraine-free and making the most of it by barreling through a shopping mall with bags in one hand and a cell phone pressed against your ear, don't neglect a trip to the food court for lunch. Or, if you're pumping numbers through an Excel spreadsheet like a CPA on Red Bull®, be sure to power down for 30 minutes to grab a turkey wrap.

Missing meals is one of the most common ways to spark a migraine, but this is easily forgotten by migraineurs who keep themselves too busy to stop and refuel. "There are some times when I recognize, 'Hey, this is probably not going to be good for me if I skip this meal,'" Wise says. "That's not always the case, though."

MaryAnn Mays, MD, a physician with the Neurological Center for Pain at Ohio's Cleveland Clinic, suggests patients eat a healthy breakfast in anticipation of a busy day. Consider packing snacks such as protein-rich almonds, fruits and veggies to nibble on while working to maintain optimal blood sugar levels.

"I often tell them they should eat six smaller, more frequent meals throughout the day," Dr. Mays says. "That way they don't have the big drop off with the decrease in blood sugar, which can stimulate a stress reaction internally and trigger a headache."

SOCIAL HOURS

Perhaps U2's Bono put it best: "It's a beautiful day, don't let it get away." That certainly was the sentiment on the NHF's Facebook wall when we asked migraineurs how they take advantage of a pain-free day without overdoing it.

"Usually playing catch-up on the household chores that never seem to get done by anyone else in the house."
-Patsy C.

"On those days my fiancée always tells me to take it easy and relax, but I don't listen. I feel so empowered and want to accomplish everything when I'm not in pain, I can't help it. When I feel like I'm borderline, then I proceed with caution."
-Janice H.

"My favorite activity is to go to the barn and ride my horses. My least favorite activity is to do nothing because I am forced to do that when I have a migraine."
-Carla J.

"On a weekday? I just try to do my job and remind myself, over and over, that I'm not in pain. You have to appreciate these brief moments."
-Pam D.

"My favorite [activity] is to have a nice hot cup of tea and snuggle with the dachshunds under a blanket. They act like little furry hot water bottles."
-Amber P.

How do you approach your headache-free days? Share your thoughts on the NHF Facebook page.

3 Break a Sweat

You've heard it a thousand times before, but every day is another opportunity to rekindle your on-again, off-again romance with fitness. Like doing laundry on vacation, 30 minutes on the elliptical machine or even an extra-long walk with the dog might not be the most enjoyable way to spend your free time. But, according to Dr. Mays, it can positively impact the neurochemicals that cause headaches.

"If someone has had a day where they've been busy or stressed, later in the day they should end up with some exercises so that the endorphins kick in and you don't get that big drop off in emotions and develop a stress 'let down' headache," she says, adding that exercise early in the day can also help control headache frequency.

They don't have to be Ironman-style workouts either. (In fact, unless you're angling to join the cast of *Jersey Shore*, you should skip muscle-blasting, strenuous exercises and the requisite indoor tanning altogether.) Just keep it simple: When Wise gets active, he focuses on light cardio—some basketball with friends, swimming and bike riding. "It definitely makes me feel better and, in my opinion, doesn't lead to so many headaches," he says.

4 Develop a Migraine Bucket List

Downtime can be fleeting for migraineurs, so be picky about what's worthy of your time. No matter how great you feel, there just aren't enough hours in a day to reorganize the closet, finish those sales projections and trim the bushes. Bottom line: Migraine sufferers need to figure out what can realistically be accomplished in one day and plan accordingly, Dr. Nicholson says.

Migraineur and professional artist Evie Ryland likes to call herself a "spontaneous, free form-type person." But she finds herself rising early and immediately organizing mental lists to fully seize her best days. As a published author and illustrator, Ryland requires a clear head to successfully draw or write, but the one or two migraines she endures each week dampen her creative mojo.

To compensate, Ryland works ahead on household chores and other time-consuming busywork to maximize the unimpeded hours she spends with her muse. "If I'm not feeling good, I'm not going to screw up sorting my laundry," Ryland says. "So I focus on the bigger, more intense goals when I'm feeling good."

Migraine sufferers need to figure out what can realistically be accomplished in one day and plan accordingly.

5 Manage Expectations

Friends, family and coworkers can be tremendous assets for chronic pain sufferers, but missed holidays, last-minute cancellations and commonly held misconceptions about migraines can strain those relationships and become another unnecessary stressor.

"I detest making plans now," says Ryland, who regularly has to reschedule a commitment to help an elderly friend with odd jobs around the house due to pain. "I think migraines are why I do things so spontaneously rather than making plans. You just never know if you're going to make it or not."

And if the neurochemical assault to the system wasn't enough, there's the inevitable guilt that accompanies feeling like you've let down those closest to you. So when migraineurs experience relief, they often feel obligated to overcompensate for their absences and leave little time for themselves.

Since time machines and cloning are the stuff of science fiction, a migraineur's best remedy may be simple, direct communication. Talk with those closest to you about your condition in advance, make contingency plans like a doctor on-call would, and, perhaps most importantly, realize you can't control everything and sometimes have to let go, Dr. Nicholson says.

"You can't let their response cause you to feel guilty, stressed, worried or frustrated," he says. "The fact is the only person you have any control over is yourself, and that's really a hard thing to get. If someone can get to a point where they can appreciate that, the conflicts will go away."

6 Nourish Your Priorities

Twenty-four hours; 1,440 minutes; 86,400 seconds. That's all the time you get in a single, migraine-free day—including sleep—so make it count.

People often spend too much time on things they don't really value, and our technology-energized world makes it easier than ever to engage in activities that provide little satsifaction, Dr. Nicholson says. Before jumping head first into a barrage of activity, Dr. Nicholson says migraine sufferers should take a moment to discover what matters most to them and indulge in those pursuits.

For Ryland, that might mean taking out the sketchpad and doodling a picture of her dog Fuzzy Monster Truck. For Wise, it could mean hanging with the kids and going nose-to-nose with a killer whale at SeaWorld—separated by several inches of glass, of course. Whether it's the siren song of a good book, dinner with old friends, a little work in the garden or scrapbooking those vacation photos, it's up to you to decide how to navigate your mind's calm seas.

"If it's what you really enjoy," Dr. Nicholson says, "at the end of the day, you won't regret that time spent." HW

By Kerry Trotter

The Terri ble Two

Explore the mysterious link between **migraines** and **fibromyalgia**— including eight telltale signs that you might suffer from both.

The National Headache Foundation has a list of headache specialists who may be of help. See www.headaches.org or call 888-NHF-5552.

WHEN THE SERPENTINE GRIP OF A MIGRAINE begins to tighten around her head, Carol Harrison reacts swiftly.

The 52-year-old outdoor and motorcycling enthusiast tosses back a cup of coffee, takes medication for the pain and crawls back into bed, hopeful a four-hour retreat into darkness will leave her with nothing more than a migraine hangover. Every now and again one sneaks up on her, but she can usually stave them off with her coping strategies—strategies she has honed since the onset of her tension- and allergy-triggered migraines in puberty.

But the migraines are hardly the worst of it, she says. In December 2010, Harrison was also diagnosed with fibromyalgia—the full-body pain condition—after a bout of shingles left her with lingering hip pain that spread to other parts her body. Now, the muscle tension that her fibromyalgia brings has a direct impact on her propensity for migraines.

"I'm just day-to-day," she says. "I'm just maintaining, but not getting any real relief."

Harrison is among an unlucky subgroup of migraineurs who suffer from fibromyalgia, a painful one-two punch that can lead to excruciating discomfort and a compromised quality of life. Harrison has curbed her once-active lifestyle. She can no longer work a 40-hour week at her job with a telecommunications company.

"It has really restricted my activity," says the Kansas City, Mo., native. "It totally debilitates you in every way."

Fibromyalgia affects roughly 5 million American adults. Women suffer in disproportionate numbers—as many as 90 percent of those diagnosed are female—and most are in middle age. The cause is murky, but studies indicate that about half of those with fibromyalgia reported its onset after an illness or trauma. Those with a close relative with fibromyalgia have an increased chance of being diagnosed, as do those with pre-existing conditions such as rheumatoid arthritis or lupus.

While symptoms of fibromyalgia can number in the hundreds, the most commonly reported are muscle and joint aches and pains, fatigue, sleep disturbances, irritable bowel syndrome and sensitivity to noise, light and sound.

COINCIDENCE OR CONNECTION?

Some studies show that as many as 75 percent of treatment-seeking fibromyalgia sufferers, like Harrison, also experience migraines, myofascial headaches or tension headaches. While the link between the conditions is tenuous, it may be more than a coincidence.

"The 'migraine brain' is just more sensitive to various stimuli," says Morris Levin, MD, a pain management specialist and co-director of the Headache Center at Dartmouth-Hitchcock Medical Center (DHMC) in Lebanon, N.H. A dog barking? A strong odor? A change in weather? "They are the first ones to notice it," he says.

The pain of a migraine arises from the inflammation of arteries on the surface of the brain, a process known as cortical spreading depression, marked by surges of ionic activity followed by lulls.

"It is something that happens to all brains," Dr. Levin says, "but people with migraines have a much higher propensity for this electrical phenomenon." Dr. Levin sees patients from all over New England reporting a wide array of headaches, but migraines are the most common. Dr. Levin declined to estimate how many of his migraine patients also reported having fibromyalgia, but he did acknowledge that co-occurrences were an unfortunate reality for some.

"A lot of us believe that any pain condition lowers the threshold for another pain condition," Dr. Levin says. Pain, he explains, is essentially a signal telling us to do something, such as pulling a hand out of a fire. It's meant to signal impending damage. It starts in the skin, the organs, the nerves—the signals are received, travel up the spinal cord, and ultimately to the brain, and then? Ouch.

"It's a good system," he says, "until it acts with no real reason."

And therein lies the confusion for patients and researchers: They know something is wrong, but the precise "how" and "why" are elusive. It's not clear one way or the other whether there is a connection, despite all the evidence. "It's a tough issue," says Brian Walitt, MD, a rheumatologist at the Washington Hospital Center and director of the Fibromyalgia Evaluation and Research Center at Georgetown University Medical Center in Washington, D.C.

Carol Harrison, an outdoor and motorcycling enthusiast, has been battling migraines and fibromyalgia since 2010.

Ryan Nicholson/Wonderful Machine

MURKY EVIDENCE

Dawn Marcus, MD, a professor at the University of Pittsburgh Medical Center specializing in fibromyalgia and migraines, conducted a study that shows strong evidence of a link between the two maladies. Published in the journal *Clinical Rheumatology* in 2005, the study examined 100 treatment-seeking fibromyalgia patients at the university's Pain Evaluation and Treatment Institute.

The results were stark: Only 24 percent of the patients evaluated said they did *not* have troublesome headaches. Among 100 transformed migraine patients evaluated, 36 percent had fibromyalgia. Of 70 migraineurs tested, about 40 percent of those reported a significant number of the physical tender points consistent with that of fibromyalgia. "It was really surprising that most of them did have headaches. Most of those were migraines," Dr. Marcus says. "There really seemed to be a link between a migraine and fibromyalgia."

Numerous studies have indicated that fibromyalgia patients have an elevated level of what is known as "substance P," a neuropeptide thought to be a major player in pain transmission. It has also been studied as a possible source of pain associated with migraines.

Fibromyalgia, migraines, depression, anxiety and other conditions have been linked to low levels of serotonin, a neurotransmitter often associated with mood regulation. Yet Dr. Walitt cautions against pinning the cause on one thing—substance P, serotonin or other deficiencies—in patients with fibromyalgia as well as migraines, as the root causes are more complex than one trigger. "I would shy away from overemphasizing those types of results," he says. In other words, substance P and serotonin theories are inconclusive, and pinning the conditions on one or the other could be shortsighted.

While Dr. Walitt says he did not know of a universally accepted study on a possible connection, he contends that the headaches fibromyalgia patients experience tend to be worse than the headaches among those without fibromyalgia. "The way they talk about their headaches, it seems to be more distressing," he says.

LIVING IN UNCERTAINTY

Migraines are tricky to diagnose in fibromyalgia patients, especially those who are not in treatment. The patients might have a battery of symptoms labeled as migrainous, but they don't do well with migraine medication, Dr. Walitt says.

Many of his patients have symptoms consistent with migraines, such as light sensitivity, but the pain "doesn't have the same migrainous course," he says. Experiencing one or several triggers that might set a migraine in motion doesn't necessarily follow a similar pattern in those with fibromyalgia. "They are adding to the misery," Dr. Walitt says, "but they are not the overriding misery."

Fibromyalgia patients "tend to have this nervous system that is more sensitive to pain stimuli," says Dr. Marcus. Like migraineurs, "they tend to identify pain earlier and perceive things as painful quicker." And for those who suffer from both migraines and fibromyalgia, the former tends to have an earlier onset.

Another link between headaches and fibromyalgia is a common comorbidity: depression. In addition to her full-body pain, Harrison has battled depression since her 20s. "A very large percentage of the patients have depression or anxiety and receive treatment for them," Dr. Levin says of migraineurs in his practice.

Dr. Marcus's fibromyalgia and headache study showed that among treatment-seeking headache patients, depression was found in 46 percent, and anxiety in 39 percent. About one-third of fibromyalgia patients studied had major symptoms of both depression and anxiety.

Tricyclic antidepressants have been used in treating both fibromyalgia and headaches, specifically migraines, but they are not a cure-all. Other approaches include physical therapy, massage, acupuncture and aerobic exercise. "The therapies are not wonderfully effective," Dr. Wallit says. "The headaches that are treated in these fibromyalgia approaches are just a symptom of the fibromyalgia patient." Headaches, he says, are not treated as a separate diagnosis, but as just one symptom on the laundry list, not any more or less significant than the others.

In Harrison's case, some of the non-pharmacological treatments, such as exercise, aren't a viable option because they could also exacerbate pain. And her yearlong, twice-a-day regimen of taking 50 milligrams of the antidepressant Sabella, a selective serotonin reuptake inhibitor, hasn't helped much either.

Harrison has been receiving treatment from her general practitioner since her fibromyalgia diagnosis, but she thinks it's time to enlist the help of a specialist. As for whether her fibromyalgia is in some way connected to her migraines? "I'm not certain it's not," she says. "Your nerves are just hypersensitive."

The cause is uncertain. The treatment is elusive. And life with both conditions is unmanageable for so many. "I'm depressed, frankly, and I don't see any way out of it," she says. But if there is any good news to come from this possible connection, it is that the research for a cure to both conditions continues. HW

SYMPTOMS IN COMMON

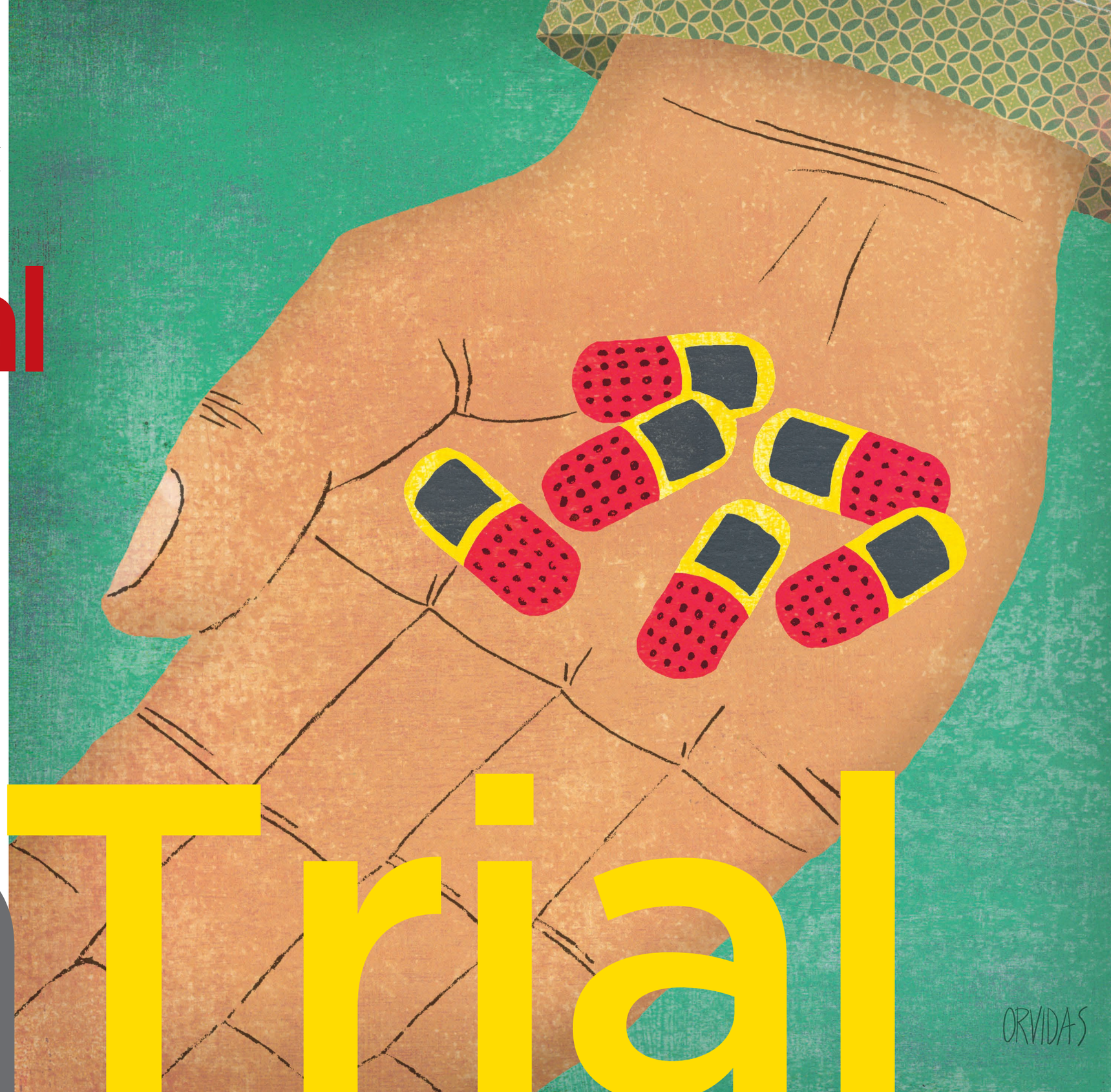
Fibromyalgia and migraines share a number of symptoms and triggers, including:

- >> Feeling as though you are in a fog
- >> Numbness in extremities
- >> Sensitivity to light, sound and touch
- >> Pain instigated or exacerbated by and during menstrual periods
- >> Average onset in adulthood
- >> More common in women
- >> Stress-triggered
- >> Co-morbidity with depression

Are clinical trials right for you?

On Trial

BY JESSICA ROYER OCKEN



Sarah Bohnert was tired of her chronic headaches. So about 10 years ago, she decided to take part in a clinical trial. During the trial, she was diagnosed as a migraineur and given a triptan as a backup medication if the study drug didn't work. The triptan—not the trial drug—worked and gave Bohnert her first real moment of relief from headache. Now the accountant and mom is a 10-year veteran of clinical trials.

"It wasn't the drug for the trial that was effective, but it was exciting for me," she says. "That's what's been valuable: Trial participation keeps me connected with doctors and the headache world."

You've probably seen a flyer in the doctor's office or heard a radio advertisement for a clinical trial. It may sound complicated and complex. But a clinical trial refers to any health-related research that follows a specific protocol. At any given moment, there are hundreds of headache-related clinical trials under way across the nation, says James Banks III, MD, of the Ryan Headache Center in St. Louis. "Clinical trials really advance medical science," Dr. Banks says. "It's how we develop new medications and how we begin to understand a disease more effectively and thoroughly."

The benefit for you: Participating in research can be a great way to get some extra medical attention, as well as contribute to medical science, but they may not be for everybody. Consider these questions about clinical trials to see if participation might be right for you.

What Is a Clinical Trial?

Every drug or therapy seeking approval from the U.S. Food and Drug Administration (FDA) must go through clinical trials. In addition, some studies are conducted that do not include testing of an experimental or unproven therapy. For example, the American Migraine Study uses mail-in interviews to collect and analyze huge volumes of data about migraine patients to identify patterns of diagnosis, quality of life, prescription use, etc.

Funding for clinical trials may come from the federal government, including grants from government agencies such as the National Institutes of Health, the Department of Defense and the Department of Veteran's Affairs.

Independent research foundations, pharmaceutical and medical device manufacturers, or non-profit foundations (such as the National Headache Foundation) may also privately fund clinical trials. "All clinical trials must go through a detailed review by an independent board before beginning, as an assurance that the study is ethical, appropriately designed and will not expose patients to any undue risks," Dr. Banks says. "Ultimately, the patients' health and well-being are of primary importance."

Once the experts give the study the green light, that's where you come in.

How Does a Clinical Trial Work?

If you join a clinical trial, expect to first go through the informed consent process, a time when you will learn the highlights of the trial before you decide whether to participate. The physician or nurse involved in the trial will explain the details and then will provide an informed consent document with the main points as well as an exhaustive list of possible risks or side effects. As of March 7, 2012, the FDA now also requires that researchers let participants know that their clinical trial information will be entered into a databank maintained by the National Institutes of Health/National Library of Medicine. Before you sign your informed consent document, take the information home and read it thoroughly. Keep in mind that you don't have to participate and you can opt out at any time—even after the trial has begun, Dr. Banks says.

"Ultimately, the patients' health and well-being is of primary importance."

Typically, volunteers are assigned to a specific cohort of patients for a "double blind" trial. This means that some will receive the experimental treatment while others will receive an alternative treatment or a placebo, which looks similar to the experimental treatment but doesn't contain any actual medication. Neither the patient nor the researchers know who has received the experimental treatment (thereby creating a "blinded" study) to eliminate the potential for a biased outcome, Dr. Banks says. All participants receive the same level of medical care throughout the study.

For more information about ongoing research or to participate in clinical trials, go to www.headaches.org/Clinical_Trials.

Bohnert says several of her trials have been testing a new application or dosage for a medication. "I just go in for an initial visit, receive the medication and treat one headache with it," she says, "then I come back for a follow up." She's also been a part of longer-term studies that involved treating her headaches and keeping a diary for seven or eight months, along with periodic check-up appointments.

Rachel Stevenson, who works from home for a specialty health care company, is currently involved in a four-month clinical trial examining whether milnacipran, a fibromyalgia drug, might help chronic migraineurs like her. She's been taking the medication and keeping a diary, she says, and she feels like it's helping.

Whatever the parameters, Dr. Banks gives participants the same message as each trial begins: "I can't promise this medication will work."

Usually in regular patient care, when something isn't working, the doctor could change the dose or even the medication to potentially get better results. But not during a study.

"Whether a specific treatment works or doesn't work, either way, that is important information," Dr. Banks says. "A clinical trial is a much more systematic way to evaluate the benefits of a medication."

So you've given researchers hours of your free time, which is already in short supply. You've arranged for other parents to take the kids to soccer practice. You've followed the protocol to a "t." But the trial offers you no relief. Is there anything else in this for you?

Why Would I Want to Do This?

Beyond the opportunity to access a treatment that may help long before it's on the market, a study also puts you in touch with specialists in the headache research community. And it allows you to be evaluated by someone at the forefront of the subject area, Dr. Banks says. Physicians conducting research usually have more time to spend with their subjects than physicians in a clinical setting, and the appointments generally "become much more educational for the patient," he explains. Not only do study participants receive a lot of information and background about their particular condition, but they also get a variety of general health evaluations.

"Each time, the researchers talk to you about how your headaches have been and different prevention possibilities," Bohnert says. "In addition, most studies involve a blood draw and EKG, so I get a mini checkup I don't have to pay for."

Research subjects are often compensated for their time and effort. Bohnert pockets around $35 per doctor visit, although this certainly varies. "It's not a lot of money," Dr. Banks says. "But it compensates them for their time and effort. It can be a lot of work to keep a diary and fill out all the forms."

Stevenson says participating in clinical trials has taught her to take better care of herself. "Migraine doctors encourage patients to track headaches in a diary, and I'm not always that great about doing it. But because I'm doing it for a study, I've been better," she says. "It's important. I know they're looking at the data, and it's helped my own awareness of my headache patterns."

Ultimately, clinical trial volunteers "get to be part of advancing medical science," Dr. Banks says. "Many get a kick out of saying they helped bring a medicine to market. There's a sense of pride in that."

What Are the Risks?

Still, there's an element of the unknown in any experiment. But patient safety and well-being are paramount to the FDA, "so lots of safety measures are built in even before trial enrollment," Dr. Banks says. The health of potential participants is carefully evaluated, and they must meet certain standards before being accepted. Once the trial begins, each time a volunteer sees a doctor he or she is carefully questioned about problems or anything new since the last visit.

There may be more risks associated with earlier phases of clinical trials, which involve a new drug that has not yet been given to many people. Doctors can anticipate some

From Test Tube to Medicine Cabinet

>> Bringing a new drug to market can take 12 to 15 years and cost more than $350 million.

>> About 99 percent of possibilities never make it to market. According to Drugs.com, an independent source for drug information, only one of every 1,000 compounds tested in the lab proceeds to human testing (and most never emerge from there).

>> Some researchers go through their entire career without ever developing a successful medication, reports James Banks III, MD. Their trials may come to a halt because the drug may not work, or it may not be effective in enough of the patient population to make producing it a wise business decision.

The Phases/Types of Clinical Drug Trials

PHASE 1: A small group of healthy human subjects (20 to 80) is used to determine a drug's safety and what's called its "pharmacokinetic" profile—information about how a drug is processed by the body, including absorption, metabolization and excretion. How fast is it absorbed and metabolized by the system? What are its side effects at various dosages? Participants spend 48 to 72 hours at a research center for these tests, where they are closely monitored and their blood drawn frequently. Patients are often well compensated for participation, and there are only a few Phase 1 testing centers in the country. If results are favorable, the drug proceeds to...

PHASE 2: A larger group of patients (usually 100 to 300) is used to gain more specific information about the drug's effectiveness in people who have the disease or condition it is intended to treat. Further information about side effects is also gathered. If the medication seems to be useful and low risk, it may proceed to...

PHASE 3: An even larger study (usually 1,000 to 3,000 patients) in which patients are monitored in clinics and hospitals as they take the drug over a longer period of time. The drug's effectiveness and any adverse reactions are again carefully noted. This phase may also involve drugs that are FDA approved but are now being studied for the treatment of another condition or at a different dosage.

If the results of this trial are positive, the manufacturer submits an application for FDA approval—a process that can take nearly three years and includes a document that's often upward of 100,000 pages. After FDA approval, the drug is marketed for doctors to prescribe.

PHASE 4: Known as Post Marketing Surveillance Trials, these studies continue to gather data about medications and devices on the market. They collect longer-term efficacy, safety and cost-effectiveness information and may help determine optimal dosage levels. Problems discovered in this phase of testing can result in restriction of a therapy's applications or removal from the market.

Sources: James Banks III, MD, drugs.com, centerwatch.com

reactions based on the medicine's chemical properties, but something unexpected may happen. However, patients are monitored very closely, Dr. Banks emphasizes. "And clinical research participation is always voluntary," he says. "You should never feel forced to start or forced to remain."

Other risks are more personal. Some trials allow participants to continue taking medications already prescribed to them, while others might ask them to stop.

"If you have to stop a medication that's working, you may want to think twice about being in a trial where you may or may not get the real medication, or you may get a real medication that doesn't work," Dr. Banks says. The first rule of thumb when deciding if you should participate in a clinical trial? If it's not broken, don't fix it. If your symptoms are under control, "you may not want to mess with your current situation," Dr. Banks says.

Some trials allow participants to continue taking medications already prescribed to them, while others might ask them to stop.

How Can I Get Involved?

Many clinical trial researchers are also practicing physicians who see patients, so you might begin by talking to your regular provider. Perhaps he or she conducts research or could put you in touch with a headache specialist who does. And you'll want your primary care physician to be aware of any trials you participate in anyway, so he or she can be aware of all factors that may affect your overall health.

Many research facilities, including Mercy Health Research in St. Louis, maintain a database of people who are willing to be part of clinical trials. With prior approval from Mercy's Research Ethics Committee to ensure patient privacy, if you agree to share your medical information, they can contact you when a trial comes up for which you might be a good fit.

Other resources include www.clinicaltrials.gov, which is the government's database of trials, and CenterWatch (www.centerwatch.com/clinical-trials/listings/condition/100/migraine-and-cluster-headaches), which provides a list of headache-related trials in every state.

If you still need convincing, consider this: "Migraine affects so many people," Stevenson says. "Even if the drug didn't work for me, at least I tried, and it's more data available. Participating really helps the community of migraine sufferers with future treatment options. It gives us hope." HW

Your Contributions to the National Headache Foundation Help Fund Projects

What's being done to help your headache problem? There is an unprecedented amount of research being done regarding migraine and other headache pain. The National Headache Foundation is involved in this effort with the help of funding from you. Contributions are a key part of the financial support of important headache research. Your gift provides funds for (a) NHF-financed research projects, (b) education for health care providers, and (c) patient-education initiatives. You can help! The National Headache Foundation, the #1 source for headache help, provides these services and many others through the generosity of people like you.

Please select one of the following giving categories:

❒ $250 ❒ $125 ❒ $100 ❒ $75 ❒ Other _____

Name: _____

Address: _____

City: _____

State/Zip: _____

Daytime Phone: _____

Method of Payment:

Check or Money Order payable to National Headache Foundation

❒ Visa ❒ MasterCard ❒ Amex ❒ Discover

Card #: _____ Expiration Date: _____

Leave a Legacy to the National Headache Foundation

With a planned gift to the National Headache Foundation, you can combine your desire to give to charity with your overall financial, tax and estate planning goals. Your planned gift gives you a special connection with NHF: **you will help those suffering from recurring headaches and migraines now and for years to come**.

The following general forms are suggested:

> Specific Bequest in your will or trust – "I give to the National Headache Foundation, whose national office is presently located at 820 N. Orleans, Suite 411, Chicago, IL 60610-3132, [the sum of _____($_____) or describe property] to be used for _____ [describe purpose] or for general purposes."
>
> Residual Bequest in your will or trust: "I give to the National Headache Foundation, whose national office is presently located at 820 N. Orleans, Suite 411, Chicago, IL 60610-3132, [all or _____percent (____%) of the rest, residue and remainder of [my or the trust] estate to be used for _____[describe purpose] or for general purposes."

This information is not intended as legal advice, but is merely suggestions as to content. The specific language should be written or adapted by your legal counsel.

Andreas Larsson

Next, LIVE

By Gary Cohen

Since KCBS-TV reporter Serene Branson suffered an on-air migraine attack on live television last February, she's been learning how to take the good days with the bad—and has found a second act as a spokeswoman for the headache community.

As the anchor in the studio went to Serene Branson for a live update about the 2011 Grammy Awards, everything seemed normal. The Los Angeles reporter smiled, look confidently into the camera and began to report just as she had every handful of live shots she delivered over her 10-year career in broadcast journalism.

But this time, the words wouldn't come.

"Well a very, very heavy..." Branson began, trailing off into gibberish as her face dissolved into fear and panic.

In the days that followed and the video of her attack went viral across the Web, many speculated she had suffered a stroke. But Branson's doctors at the Ronald Reagan UCLA Medical Center told her she had suffered a migraine with aura, often accompanied by the slurred speech Branson experienced.

In an exclusive interview a year after the episode, Branson talks with *Head Wise* about moving on, learning to say no and a newfound appreciation for the close relationships in her life.

Head Wise: Take us back to that night: What happened?

SERENE BRANSON: What many people did not see was before I went live, I did not feel well at all. I had severe nausea, a pounding headache, blurred visions, a lot of fatigue—I just felt awful. But I thought it was a long day. It was the Grammys. I thought I was tired and just going to push through it. Obviously, that was not the case. I was confused. I was scared. Right after that, I dropped the microphone and started to cry.

HW: What was going through your head as this was happening to you?

BRANSON: I've been in the business for about 10 years now. I do live shots every single day—many times three, four, five and six shots in a single day without a problem. I never stumble. I never trip up on my words. I was scared and confused. My mouth, my speech, my vocal chords could not convey the words in my head.

Know Your Headache: Migraine and Aphasia

The loss of speech that Serene Branson experienced is called "aphasia," a term used to describe disorders of language. Symptoms of the disorder differ depending on the area of the brain affected, but typically people who experience aphasia have trouble speaking, writing and otherwise communicating, says Mark W. Green, MD, FAAN, director of headache and pain medicine at Mt. Sinai School of Medicine in New York City. Words may come out as nonsense or they may not come out at all.

Most commonly, aphasia is the result of trauma such as a stroke or head injury. But it can also come about more slowly as a result of dementia, brain tumor and other neurological disorders—including migraine.

"It's common with strokes but not with migraine," says Dr. Green. "Aphasia can look very much like a stroke. But in Serene's case, it should've been pretty obvious to a skilled headache physician that it was a migraine."

Dr. Green says the symptoms that Branson experienced are typical of aphasic migraine. Branson's aphasia was the result of cortical spreading depression, he says, an electrical wave in the brain that causes cells to fire at once and then halt for a period of time. The condition is often accompanied by numbness in both the mouth and hand.

"I saw Serene being interviewed on CBS News about the incident and she said that her cheek and hand got numb and she described a visual disturbance," Dr. Green says. "It's extremely likely that those symptoms together (aphasia, visual disturbances and numbness in the hand and cheek) are what we thought—the result of a migraine."

Depending on the area of the brain affected and the underlying cause, aphasia can go away or persist for a lifetime. Speech often continues to be affected, Dr. Green says.

"Speech therapists may teach you how to compensate for it, but the most important thing is time and recovery," Dr. Green says.

–Jackie Walker Gibson

HW: There was a lot of speculation that you had had a stroke. What were your thoughts when you received the diagnosis of migraine? Were you surprised?

BRANSON: Of course. I spoke to my mother after the broadcast, and that was the first thing that she said to me. She said, "I bet this was a migraine." And I said, "Mom, you're crazy. No—I couldn't talk." And she said, "I had a few of those back in my 20s and 30s where I couldn't talk." And I said, "We'll get the doctor's opinion. There's no way it was a migraine." So when I got the final diagnosis, my mom had a moment when she said, "I told you so." She was right.

HW: Did you know before this incident that you had migraines?

BRANSON: It was total news to me. My mother had never discussed it with me before, because she was one of those people who had several in her 20s, 30s and I think she had one in her early 40s, and then never had them again. I didn't remember her having them. During my late 20s, I started to get these really bad headaches. I never thought they were migraines.

HW: How are you feeling now?

BRANSON: I'm feeling a lot better. I'm definitely trying to monitor my conditions and be really aware of what my body is telling me, and that's one good thing this whole incident has taught me: to listen to my body and not try to push through things when my body is speaking to me. I have had a couple of instances where I've felt the symptoms coming on—the really bad headache, the blurry vision and a little bit of the nausea. I just keep medicine with me that my doctor prescribed. I've tried a couple of homeopathic ones, and together, those pretty much eliminate it from becoming a headache where I can't speak anymore.

HW: Have you figured out what your triggers are yet?

BRANSON: I don't know what my exact triggers are, but I know that for me it tends to be a perfect storm of stress, along with lack of sleep or just change in general. When I fly, I have to be careful. The change in the altitude can trigger it.

HW: Are you doing anything differently now to manage you condition?

BRANSON: I've cut down on the caffeine, and I'm making a concerted effort to sleep eight hours a night. I'm eating regularly every four hours. I've had to learn, I will admit, how to say "no." When I'm asked to do an extra shift on the weekend, if I'm feeling up to it—sure, great. But if there's already something personally in my life that stressing me out, I will say "no."

HW: As a result of that night at the Grammys, how has your life changed in the last year?

BRANSON: I've learned to kind of take a breath here and there and take stock of my health. I've had a lot of really positive things happen this year, and I thought I'd never be in broadcast again. But my personal relationships have grown. I got engaged last year, not too long after the incident. Going through an instance like that really does show you people's true colors, and who is really out there to protect you and who's out to take advantage of you.

That's one good thing this whole incident has taught me: to listen to my body and not try to push through things when my body is speaking to me.

HW: You got involved with the migraine community a little bit in the last year. Tell us about what you've been doing with the NHF.

BRANSON: There was a part of me that was like: I've talked about this. I've put it behind me. No more talking about it. Let's move on. But I kept getting the e-mails and the letters and the phone calls from people saying "thank you for talking about this, I've been a migraine sufferer for years, and no one has ever taken it seriously."

I realized that there was a need for information and education about the topic. I partnered up with the National Headache Foundation and assisted with Migraine Awareness Week. I wanted to get the word out and let people know that they're not alone and that there are resources available.

HW: Have you had any memorable events with migraine sufferers at these events?

BRANSON: There was one woman who came up to me as I was walking out of the restroom and she just started crying. She said "Thank you so much for talking about this. I walked into my boss's office, and I played him the video of what happened to you at the Grammys and I said 'this is what I have.' In my mind, it legitimized my condition to my boss, and ever since then I haven't been afraid to call in sick to work if my condition is that bad."

HW: What are your plans for the future?

BRANSON: Well, I re-signed my contract with CBS, so I plan on being happy there for a while. With the NHF, I look forward to working with them on some conferences next year to educate folks, and make sure people realize how common it is, that it's a legitimate condition. I look forward to a lot of personal adventures as well.

HW: What's the best thing that's happened to you as a result of this?

BRANSON: Professionally, the best thing was giving viewers an insight to me personally—not just seeing that that blonde news reporter, that nameless, faceless person reporting the story anymore. I went through a crisis on live television, and I think people empathize with me and saw that I was human and that I was fallible. Personally, the best thing to come out of it was my impending marriage, and the relationship was really solidified. He was by my side through all of this. We spent Valentine's Day at UCLA Medical Center as I was having blood drawn for 12 hours. He was by me the whole time. HW

Want to hear more from Serene Branson? Access the full podcast at www.headwisemag.org/ExpertAnswers.

wise words

NAME: Klaus Smalls
RESIDENCE: Sumter, S.C.
CONDITIONS: Migraine with aura, cluster headache
FIRST DIAGNOSED: At a Veterans Affairs hospital after leaving the military in 1997

Photography by Morgan Anderson

Submit your own story at www.headwisemag.org/WiseWords.

What's the most frustrating thing about living with migraine?
Promising my kids I'll do something, and then a headache comes up and I'm not able to do it. They don't really understand. Even though they know their father has a medical condition, it's still disappointing to them.

What are you most thankful for?
Being alive and having good days. And when I do have good days, spending them with my kids.

What's your greatest achievement?
Being able to pass on some of the things I know to my kids. I paint and draw and play music. My kids know I love to do these things, so they all do them, too.

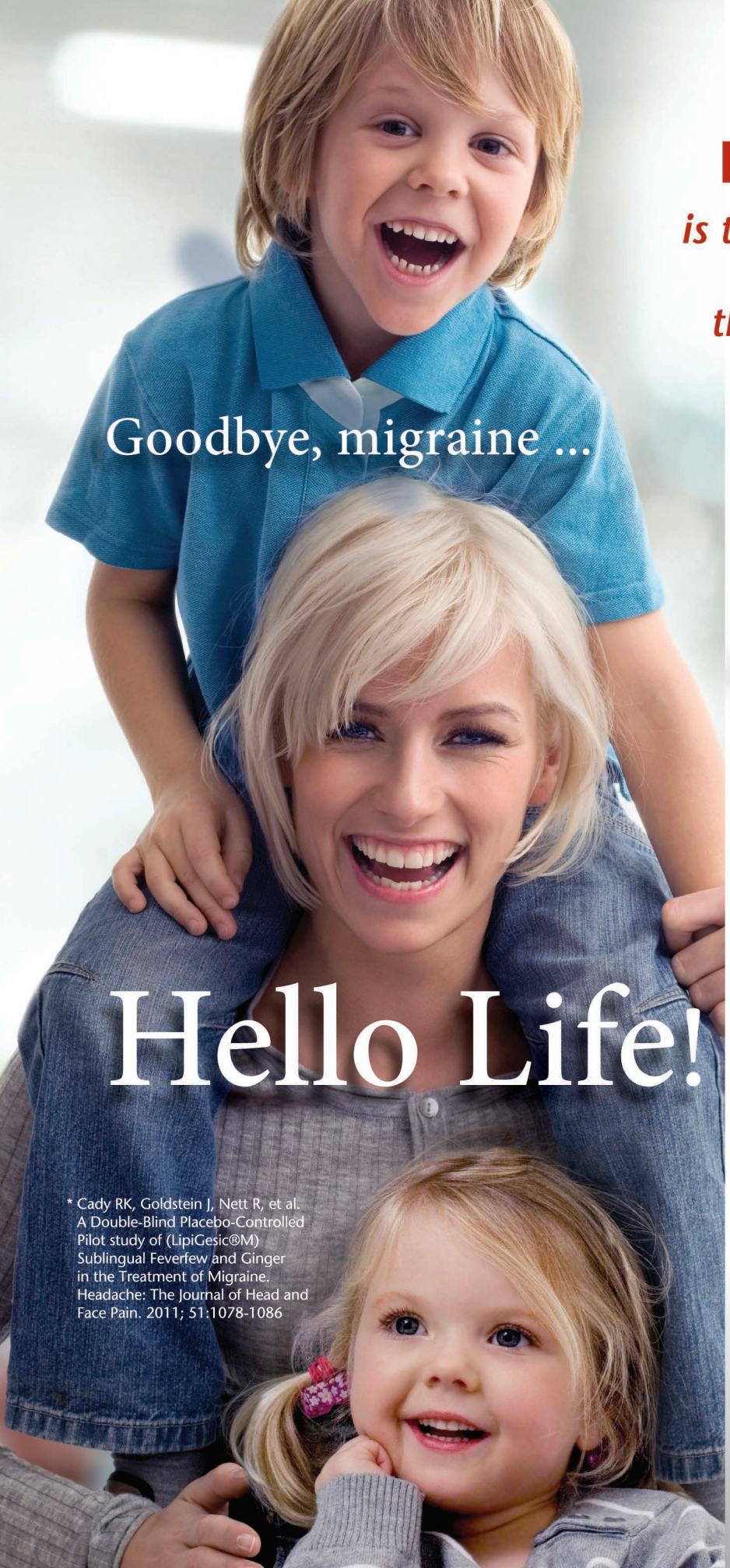
How do you live your day-to-day life?
Precariously. Oftentimes my mind tells me I can still do all these different things, but my body doesn't allow me to. So it's almost like there are two people living the same life. The old Klaus wants to run and gun all day, but the new Klaus is like, "No, you're not going to be able to do that."

What's the best advice you've gotten?
One of the doctors at the Diamond Headache Clinic in Chicago told me, "You'll either grow out of your headaches, or you'll grow into them." I didn't quite understand it at the time, but I do now. There was a time that a three or four on the pain scale would have me bawling like a baby. Now with a three or four, I can do just about anything.

What's your favorite thing to read?
Airbrush Action magazine.

What's your idea of happiness?
That's a very simple question. It's being migraine free and spending as much time as I can with my kids.

Klaus Smalls is a U.S. Marine Corps veteran who spends his free time playing guitar, airbrushing, drawing and rebuilding vintage cars.



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* Cady RK, Goldstein J, Nett R, et al. A Double-Blind Placebo-Controlled Pilot study of (LipiGesic®M) Sublingual Feverfew and Ginger in the Treatment of Migraine. Headache: The Journal of Head and Face Pain. 2011; 51:1078-1086