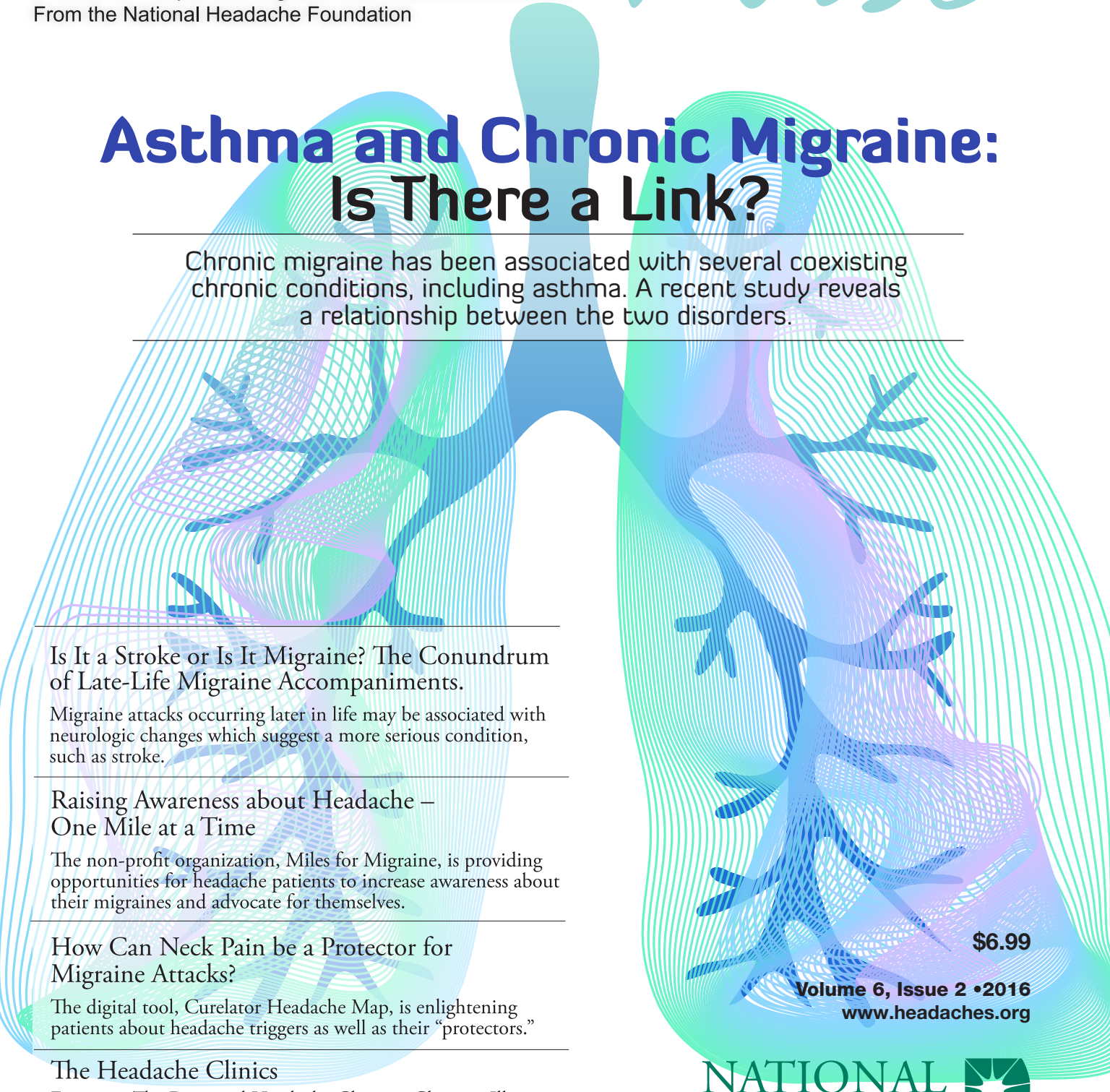
HeadWise®

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

Asthma and Chronic Migraine: Is There a Link?

Chronic migraine has been associated with several coexisting chronic conditions, including asthma. A recent study reveals a relationship between the two disorders.



Is It a Stroke or Is It Migraine? The Conundrum of Late-Life Migraine Accompaniments.

Migraine attacks occurring later in life may be associated with neurologic changes which suggest a more serious condition, such as stroke.

Raising Awareness about Headache – One Mile at a Time

The non-profit organization, Miles for Migraine, is providing opportunities for headache patients to increase awareness about their migraines and advocate for themselves.

How Can Neck Pain be a Protector for Migraine Attacks?

The digital tool, Curelator Headache Map, is enlightening patients about headache triggers as well as their "protectors."

The Headache Clinics

Featuring The Diamond Headache Clinic in Chicago, Illinois.

$6.99

Volume 6, Issue 2 •2016
www.headaches.org

NATIONAL HEADACHE FOUNDATION™

Get HeadWise® at home

NATIONAL HEADACHE FOUNDATION™

If you think a headache is just a headache, think again. Millions of Americans suffer from migraines, cluster headaches, and other serious headache disorders. Chances are, headache disorders affect you or someone you love.

Join the cause by donating to the National Headache Foundation, the world's largest voluntary organization for the support of people with migraine and headache disorders. For 45 years, the NHF has assisted millions of individuals and inspired hope through awareness, advocacy, education, and research.

INDIVIDUAL Subscription: **$20 per year**

PROFESSIONAL Membership:

Physician (M.D. or D.O.)	**$125 per year**
Allied health:	**$75 per year**

With your donation, you'll receive:

- **A subscription to *HeadWise*® magazine**
- **The NHF News to Know monthly e-newsletter:**
  Access to a wealth of headache research, support, and information.
  Plus, your donation will support the NHF and help advance headache advocacy, education, and research.

To join, go to www.headaches.org/become-a-member/ or call 1-888-NHF-5552

FROM THE EXECUTIVE CHAIRMAN:

Throughout my many years of practice, I adhered to the principle of a continuity of care. I learned this concept during my years in Family Practice, and continued it through my work with headache patients. Eventually, this was the guiding principle at the Diamond Headache Clinic by the entire staff.

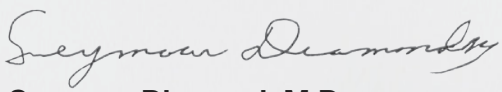
It is essential that when managing headache patients, the health care practitioner is aware of the entire individual – and not just focusing on the headache complaint. Coexisting conditions may impact on both the diagnosis and treatment choices.

In this issue, two articles reflect the need for continuity of care. Asthma and migraine not only can occur together in the same patient, but a recent study at the University of Cincinnati recognized a possible link between asthma and the evolution of chronic migraine. Therapeutic options for both disorders are influenced by the presence of both conditions.

In older patients, some migraine symptoms may suggest a serious neurological condition, such as stroke. These late-life migraine accompaniments highlight the need for a thorough headache history as well as complete neurological examination for migraine patients. The treatment of migraine and other headache conditions in older patients present a complex situation in which many therapeutic options must be considered.

Continuity of care also indicates the need for appropriate follow-up care. The evaluation of headache patients cannot be limited to a one-time consultation. Return visits should be scheduled in order to assess the impact of therapy, and discuss the results of testing (if needed). All of these visits provide an opportunity to enhance patient education and supply the patient with tools to advocate for themselves.

The principle of Continuity of Care establishes a feeling of caring for the patient by the physician. Without this approach, management of any medical problem – whether headache, asthma, hypertension, etc – is at a disadvantage.



Seymour Diamond, M.D.
Chicago, Illinois

HeadWise®

The National Headache Foundation • www.headaches.org

NATIONAL HEADACHE FOUNDATION™

Mission
To cure headache, and end its pain and suffering.

Vision
A world without headache.

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This publication discusses a broad range of headache information in an effort to inform and educate readers, but is not intended to substitute for the advice of your health care provider. Statements expressed herein are not necessarily those of NHF.

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Letters, manuscripts, stories, materials or photographs are welcomed but will not be returned. Submission of letters implies the right to edit and publish all or in part. Submissions may be sent to: mfranklin@headaches.org. Please indicate your name, address and phone number.

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Check out additional *HeadWise*® and NHF content at www.headaches.org.

contents

FEATURED ARTICLES

Asthma and Chronic Migraine: Is There a Link?

Because of the frequent occurrence of asthma in the US population, it is highly likely that many of these patients also experience migraine attacks. A recent study at the University of Cincinnati indicates that those with asthma and episodic migraine have a higher risk of developing chronic migraine.

Is It A Stroke or Is It Migraine? The Conundrum of Late-Life Migraine Accompaniments

As we age, the frequency of migraine attacks decreases and the presentation of migraine also changes. For some older migraine patients, associated neurologic symptoms may resemble a clinical picture associated with stroke. These events may be alarming for the patient, their families, and their health care practitioners.

Raising Migraine Awareness – One Mile at a Time

In 2008, the non-profit organization, Miles for Migraine, was founded to raise public awareness of headache and migraine. The races and their outreach have expanded since that time, and the volunteers continue to champion migraine patients and their families.

How Can Neck Pain be a Protector for Migraine Attacks?

The digital tool, Curelator Migraine Map, has been assisting migraine patients identify headache triggers. And, it has also helped those individuals see what they have used as protectors of those attacks. One of the first users of this tool describes how demonstrating neck pain as a protector has helped in the management of her migraine attacks.

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IN EVERY ISSUE

This issue features **The Diamond Headache Clinic** in Chicago, Illinois, and a conversation with its President and Managing Director, Merle Diamond, MD, and its COO/CFO, Konrad Kothmann.

NATIONAL HEADACHE FOUNDATION™

National Headache Foundation Service Awards

To honor two members of the Board who had resigned their positions on the Executive Committee, these service awards were presented to the Board member as well as their spouse. Both of these couples have supported and served the NHF for many years, and these awards were given with our gratitude.

Arlene and Dr. Arthur Elkind

Arlene and Dr. Arthur Elkind

Dr. Arthur Elkind served as President of the NHF from 2007 through May, 2016. He has served on the Board since 1988, and will continue to Chair the Editorial Committee. In 2011, Dr. Elkind retired as the Director of the Elkind Headache Center in Mount Vernon, NY.

His wife of 60 years, **Arlene**, worked with him in the practice in the research area for several years. They have both been enthusiastic supporters of the NHF for many years, and devoted a large portion of their lives to helping those with headache.

Roger K. Cady, MD and Kathleen Farmer, PsyD

Kathleen Farmer, PsyD and Roger K. Cady, MD

On April 30, 2016, **Dr. Roger Cady** resigned his position as Associate Executive Chairman of the National Headache Foundation, a post that he had served since February, 2010. He was first elected to the Board in 1998, and served as Vice President from 2006 through 2010.

Until April, 2016, Dr. Cady was Director and Founder of the Headache Care Center and ClinVest in Springfield, MO. He is now Vice President, Neurology, of Alder Pharmaceuticals, in Bothell, WA. His wife, Dr. Kathleen Farmer, had served as a Clinical Psychologist at the Center and with ClinVest. Together, they have written many professional articles and several books concerning headache and medical adherence. Both of these healthcare professionals have consulted on the examination of the Certificate of Added Qualification in Headache Medicine (CAQ). HW

Executive Director Mary Franklin

NHF Staff

In June, 2016, **Mary Franklin** was promoted to the position of Executive Director. Ms. Franklin joined the National Headache Foundation staff in September, 2011 as Director of Operations. She previously served as Vice President of Publishing and Administration at the Diamond Headache Clinic, and had joined the nursing staff of the Clinic in September, 1970.

CAQ-2016

The examination for applicants for the Certificate of Added Qualification (CAQ) in Headache Medicine was given from September 12 through September 26, 2016. We would like to congratulate those health care practitioners who have successfully passed the exam and met the requirements for the CAQ:

Divya Asher, PA-C	*Chicago, IL*
James A. Boesiger, PA-C	*Las Vegas, NV*
Christine Utley, DNP, RN, FNP-BC	*Toledo, OH*
Christine M. Lantin, PA-C	*Chicago, IL*
Dena Miller, FNP-BC, MSCS	*Fort Worth, TX*
Eugeniu Muntean, MD	*Fargo, ND*
Lawrence Robbins, MD	*Riverwoods, IL*
Eric Charles Schubert, MPAS, PA-C	*Dalton Gardens, ID*
Ravinder Singh, MD	*Culver City, CA*
Lana Tymouch, PA-C	*Chicago, IL*
Yelena Vidgop, MD	*Weston, FL*

To find a health care practitioner (HCP) in your geographical area who manages headaches, please visit our website, **www.headaches.org**, and view the Health Care Provider Finder. On that list, you can note if the HCP has received the CAQ in Headache Medicine or the subspecialty in headache medicine from the United Council of Neurologic Subspecialties (UCNS). You can also phone the National Headache Foundation office at 1-888-NHF-5552 and speak to one of our staff members who will help you with the HCP Finder.

National Headache Foundation Board

On August 22, 2016, **Mr. Roger Plummer** resigned from the Board. Mr. Plummer had served on the Board since November, 2013. We thank Mr. Plummer for his support and service to the Board.

Mark W. Green, MD, on September 19, 2016, resigned from his position as Vice President (to which he was elected in May, 2016) and from the Board. Dr. Green will continue to support our activities.

NHF news

The 30th Annual Fundraiser
The Purple Ball
RULE YOUR HEADACHE

The 30th Annual Fundraiser, *The Purple Ball – Rule Your Headache*, was held at the Ritz-Carlton Chicago, on May 21, 2016. Over 200 guests attended the gala, which included dinner, dancing to the Don Cagen Orchestra, silent auction with over 100 items, wall of wine, and the annual raffle. The program was emceed by the NHF President, Vincent Martin, MD.


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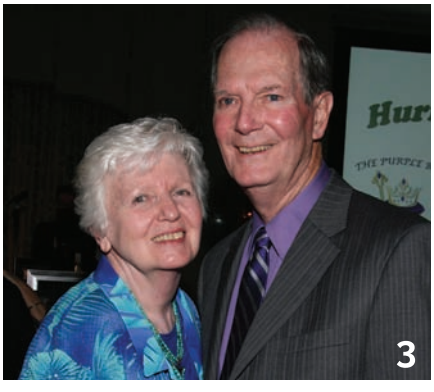
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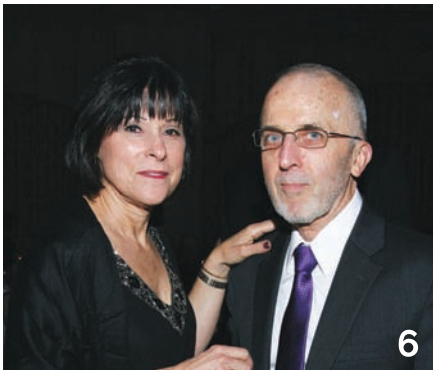
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1 Elaine and Dr. Seymour Diamond enjoying the program **2** Dinner **3** Brenda and Dr. Robert Kunkel, former President of the National Headache Foundation. **4** Board member, James Beasley, and his wife, Mary. **5** Board member and Gala Honorary Chairperson, Emily Kaplan Kandel (2nd from right) with her daughters, Libby and Ally, and husband, Paul, who is an honorary Board member. **6** Rhonda and Dr. Jose Biller **7** NHF President, Dr. Vincent Martin (center) with his wife, Vicki, and daughter, Julianne **8** Dr. Mark Green listening to award recipient, Dr. Joseph Mann.

Lifetime Achievement Award
OF THE NATIONAL HEADACHE FOUNDATION

The Lifetime Achievement of the National Headache Foundation is presented to a health care practitioner in recognition of an impressive body of work in the field of headache. The 2016 award recipient was Mark W. Green, MD, the Director of Headache and Pain Medicine at Mount Sinai Medical Center, and Professor of Neurology, Anesthesiology, and Rehabilitation Medicine at the Icahn School of Medicine at Mount Sinai, New York City, since 2009. Dr. Green has been involved in headache medicine since 1978, when he served as the Director of the Headache Unit at Montefiore Hospital. From 1980 through 1986, he was Assistant Clinical Professor of Neurology at Columbia University College of Physicians and Surgeons, New York. He then served as Clinical Associate of Neurology at New York Medical College in Valhalla, NY. Dr. Green returned to Columbia in 2000 where he organized a section on headache and facial pain within the Department of Neurology.

A native New Yorker, Dr. Green received a B.A. in chemistry (with honors) from Case Western University in Cleveland, OH, and his M.D. from Albert Einstein College of Medicine, Bronx, NY. In 1979, he became Board Certified in Neurology from the American Board of Psychiatry and Neurology. He received the Subspecialty Certification in Headache Medicine from the United Council of Neurologic Subspecialties in 2006. In 2011, Dr. Green became a Fellow of the American Academy of Neurology.

He is a founding member and editor of the journal of the International Headache Society, *Cephalalgia*, and has served as an Associate Editor of the journal, *Headache*. Also, he served as Editor-in-Chief of the American Academy of Neurology's *Continuum* on Headache. In 2015, he served as an Associate Editor and Contributing author to the textbook, *Headache and Migraine – Biology and Management*, which was published by Elsevier. He is currently a panel member of the Advisory Board of the Food and Drug Administration's Section on Peripheral and Central Neurological Drugs, and remains a consultant to the FDA.

Dr. Green was elected to the Board of the National Headache Foundation in 2010. In May, 2016, he was elected as Vice President of the Board. As of September 19, 2016, Dr. Green has resigned his elected position and his appointment of the NHF Board. **HW**

THE HEADACHE HEALTHCARE *Practitioner of the Year*

The Headache Healthcare Practitioner of the Year is presented in recognition of a health care provider's high level of clinical expertise and commitment to improving healthcare for headache sufferers along with the individual's dedication and extraordinary service to patients. The 2016 recipient was Joseph I. Mann, MD. He was nominated by two of his patients.

Kathy O noted that *"Dr. Mann represents the very best in the medical profession and, specifically, in migraine treatment. At a time when there's so much negativity surrounding the medical field, I look forward to a way to showcase what he's meant to his patients, all of whom have benefitted from his decision several years ago to concentrate his practice on migraine treatment."*

Another patient, Tina L, wrote *"In my mind, he is so deserving for his knowledge, kindness, expertise in all of the medical areas that impact headaches, his exceptional compassion, his devotion to all patients, and his willingness to make himself available at almost any time. I could go on and on. It's no exaggeration to say that he saved my life and I'm sure he has had the same impact on the lives of many other patients as well."*

Currently, Dr. Mann is a partner in the Greater Rochester (New York) Neurological Associates, with his practice limited to the assessment and management of patients with headache disorders, particularly migraine. He also serves as Clinical Assistant Professor of Neurology, University of Rochester School of Medicine and Dentistry. And, Dr. Mann is the current President of the Chapter of Neurology and Neurosurgery of the Rochester Academy of Medicine. He is planning to retire at the end of 2016, but will continue to do neurology research (part-time) in the Rochester area.

Dr. Mann was born in New York City, and received his BA from the Brooklyn College of the City University of New York. In 1969, he earned his M.D. degree from New York University School of Medicine. In 1979, he received his status as a Diplomate of the American Board of Neurology and Psychiatry, and received Subspecialty Certification in Headache Medicine from the United Council of Neurologic Subspecialties in 2007. He has practiced neurology in Rochester since 1976, and during the late 1980s, became more interested in migraine. **HW**

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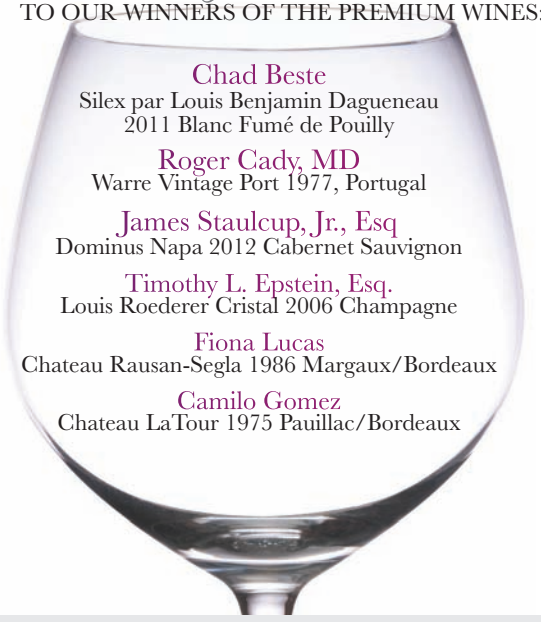

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Warre Vintage Port 1977, Portugal

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DON'T LIE DOWN
STAND UP
TO CHRONIC MIGRAINE

BOTOX®
onabotulinumtoxinA injection
For adults with Chronic Migraine

For adults with Chronic Migraine, 15 or more headache days a month, each lasting 4 hours or more

BOTOX® prevents on average 8 to 9 headache days and migraine/probable migraine days a month (versus 6 to 7 for placebo). BOTOX® is not approved for adults with migraine who have 14 or fewer headache days a month.

Talk to a headache specialist
Go online for more information and to learn about savings

BOTOX® is the first and only FDA-approved preventive treatment for Chronic Migraine

- **BOTOX® is proven to prevent headaches before they even start**
- **BOTOX® is shown to prevent migraines before they even start**
- **BOTOX® is injected by a doctor once every 12 weeks**
- **BOTOX® is covered by most insurance companies**

BOTOXChronicMigraine.com

INDICATION

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).

IMPORTANT SAFETY INFORMATION

BOTOX® may cause serious side effects that can be life threatening. 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, trouble saying words clearly, loss of bladder control, trouble breathing, trouble swallowing.

Please see additional Important Safety Information on adjacent page.

Allergan

IMPORTANT SAFETY INFORMATION (Continued)

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

BOTOX® may cause loss of strength or general muscle weakness, vision problems, or dizziness within hours to weeks of taking BOTOX®. **If this happens, do not drive a car, operate machinery, or do other dangerous activities.**

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.

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. They include itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Get medical help right away if you experience symptoms; further injection of BOTOX® should be discontinued.

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

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; 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 (it is not known if BOTOX® passes into breast milk).

Tell your doctor about all the medicines you take, including prescription and nonprescription 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.**

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 (tell your doctor 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 aspirin-like products or 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 the Summary of Information about BOTOX® on the following page.

BOTOX® onabotulinumtoxinA injection

Summary of Information about BOTOX® (onabotulinumtoxinA)

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

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, trouble saying words clearly, loss of bladder control, trouble breathing, trouble swallowing.

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.

BOTOX® may cause loss of strength or general muscle weakness, vision problems, or dizziness within hours to weeks of taking BOTOX®. **If this happens, do not drive a car, operate machinery, or do other dangerous activities.**

BOTOX® dosing units are not the same as, or comparable to, any other botulinum toxin product.

What is BOTOX®?

BOTOX® is prescription medicine a medical professional injects into muscles 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 and older.

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

Who should not take BOTOX®?

Do not use BOTOX® if you are: allergic to any of the ingredients in BOTOX® such as botulinum toxin type A and human serum albumin; had an allergic reaction to another botulinum toxin product such as Myobloc® (rimabotulinumtoxinB), Dysport® (abobotulinumtoxinA), or Xeomin® (incobotulinumtoxinA); or have a skin infection at the planned injection site.

What should I tell my doctor before treatment?

Tell your doctor about all your muscle or nerve conditions, such as amyotrophic lateral sclerosis (Lou Gehrig's disease), myasthenia gravis, or Lambert-Eaton syndrome, as you may be at increased risk of serious side effects.

Tell your doctor if you have or have had breathing problems such as asthma or emphysema; swallowing problems; bleeding issues; plan to or have had surgery; have forehead muscle weakness such as trouble raising your eyebrows; drooping eyelids; or any changes to your face.

Tell your doctor if you are pregnant, plan to become pregnant, are breastfeeding or plan to breast feed. It is not known if BOTOX® (onabotulinumtoxinA) can harm your unborn baby or if BOTOX® passes into breast milk.

What Are Common Side Effects?

The most common side effects include neck pain; headache; migraine; slight or partial facial paralysis; eyelid drooping; bronchitis; musculoskeletal stiffness; muscular weakness; pain in 1 or more muscles, ligaments, tendons, or bones; muscle spasms; injection site pain; and high blood pressure. Other side effects have been reported including allergic reactions e.g. itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint.

These are not all of the possible side effects. Call your doctor for medical advice if you experience any side effects after treatment with BOTOX®.

What Should I Tell My Doctor About Medicines and Vitamins I Take?

Using BOTOX® with certain 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.** Tell your doctor if you have received an injection with another botulinum toxin product in the last 4 months, such as Myobloc®, Dysport®, or Xeomin®. Be sure your doctor knows which product you received.

Tell your doctor about all prescription and over-the-counter medicines and supplements you take including: vitamins and herbal products; recent antibiotic injections; anticholinergics; muscle relaxants; allergy or cold medicine; sleep medicine; aspirin-like products; and blood thinners. **Ask your doctor if you are not sure whether your medicine is listed above.**

To Learn More

If you would like more information, talk to your doctor and/or go to BotoxChronicMigraine.com for full Product Information.

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PERSISTENT MIGRAINE PRODROME/AURA

I have recently been diagnosed with persistent migraine prodrome/aura. My symptoms of vague visual disturbance, increased sleepiness, photophobia, and mild headaches began almost 3 months ago. When the visual disturbance did not develop into a normal aura and headache that I have come to expect from my migraines, I grew concerned and sought medical help. An optometrist, general physician, two neurologists, and one neuro-ophthalmologist later, I was diagnosed with some form of persistent migraine prodrome.

Upon doing some of my own research, I've found that what I have seems similar to Persistent Aura Without Infarction (PAWOI) or something similar. As far as I've been able to find, there is very little known about this, including how long it may continue. I would greatly appreciate if you could identify any resources that may help me better understand my condition. I am about to enter my final semester of college, and I am concerned that if my condition persists after graduation, I will struggle to find employment. Is there some type of document I should have requested from my doctor to help explain my condition and how it limits me to potential employers? –Colleen M

That syndrome exists and there have been very few studies that address how that is treated. We use migraine preventive agents to reduce the excitability of the cortex of the brain and see if that resolves it. There are several of these, and none proven better than another. The trials of each are fairly long, as it often takes 6 weeks to determine whether this will work.

Your note doesn't tell enough details about the visual disturbance, but sometimes the complaint is "visual snow" which is felt not to be a variation of migraine. Since you have light sensitivity and headache, that is less likely to be the cause.

This is a very specialized problem, and best managed by a headache specialist in your area. They would be aware of all of the preventive agents for migraine that are available and would do these trials with you. The NHF can probably point you to a specialist.

Mark Green, MD
Mount Sinai Medical Center
New York, NY

UNEXPLAINED VERTIGO/DIZZINESS EPISODES

The patient is male, 52 years old, 5'10", 220 lbs. He started getting vertigo/dizzy symptoms 2 years ago and went to his regular doctor and all of his vitals checked out. Then, he was referred to a neurologist. He is now taking topiramate 75mg, 2 times a day and also Meclizine 12.5 mg, 2 times a day. An MRI did not reveal anything. He continues to experience daily episodes that last only from 30 seconds up to a few minutes. Usually, the spells occur during lunch, either before or after eating the meal. Nothing appears to trigger these episodes. The scary part is that these episodes have occurred while he was driving, and luckily he had a little bit of a warning to pull the car over to the side of the road. He had a normal eye exam during this time. It has been 9 months since his last neurological exam. He is following up with his neurologist and the eye doctor in a couple of months. He is just concerned that this can happen when he is driving and doesn't want to be denied driving privileges, especially, since he needs his car for work, etc.

This case is hard to address in the absence of more precise information. For example, the term vertigo/dizziness can be interpreted many ways, but the description makes me wonder about causes which have nothing to do with migraine. The differential diagnosis of frequent, short duration disequilibrium/spinning attacks would include cardiac arrhythmia or even vertebrobasilar insufficiency. Neurological and cardiac causes need to be ruled out before these symptoms could be attributed to a structural ENT or migraine explanation. Cardiac event monitoring and cerebral and extracranial MRA would be helpful.

Edmund Messina, M.D.
Michigan Headache Clinic
East Lansing, MI

DAITH PIERCING AND MIGRAINE RELIEF

My wife has suffered from migraines for as long as she can remember. She deals with them almost daily. The only thing that has seemed to help is birth control. It seems to slow down the frequency. However, recently it hasn't been helping as much. so she is considering getting the daith piercing. I have done a little bit of research and don't feel there are many negative side effects (aside from the initial pain). What are your thoughts on this and do you have any other alternatives for relief? If the piercing is a good idea, how important is the placement and is there a certain place you would go for this? –Joey P.

Daith piercing involves piercing a cartilage within the ear and placing a ring or another metal item into the hole. There are no studies of this treatment, so we usually do not recommend it. While it is not very dangerous, rare complications can occur. These include scarring or an infection with the potential loss of an ear. If this procedure does provide some relief, it could be due to an effect similar to acupuncture. We do have dozens of studies which suggest that acupuncture helps migraine and tension-type headaches. Inserting acupuncture needles can also rarely cause an infection, but it is much more likely with piercing a cartilage and leaving a foreign body in place. Migraines often subside on their own, so despite higher cost, it is better to do acupuncture rather than have a permanent hole in the ear.

In addition to acupuncture, other alternatives with some scientific support include biofeedback or meditation, regular aerobic exercise, and supplements such as magnesium, CoQ10, riboflavin, feverfew, and boswellia.

Alexander Mauskop, MD
New York Headache Center
New York, NY

BOTOX USE IN PREGNANCY

Is it safe to have medical migraine Botox during pregnancy?

There are no studies of the safety of Botox during pregnancy and therefore it cannot be recommended for our patients at this time.

Vincent Martin, MD
University of Cincinnati
Cincinnati, OH

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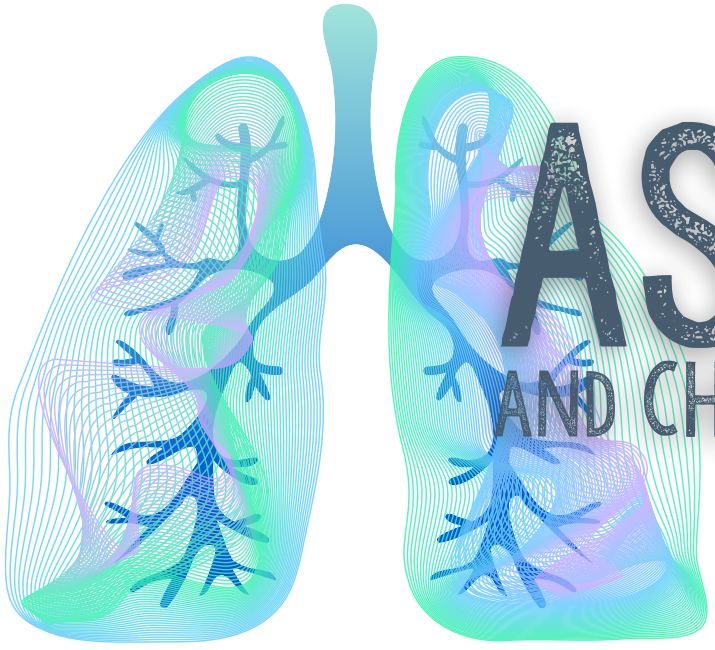

ASTHMA AND CHRONIC MIGRAINE: *Is There a Link?*

Mary Franklin, Erick Ward
National Headache Foundation
Chicago, IL

According to the Centers for Disease Control and Prevention, 17.7 million adults (age 18 and over) in the United States currently have asthma. That is 7.4% of the adult population. And, 6.3 million children (under age 18) in the U.S. have asthma – 8.6% of the children in this country. It is, therefore, logical to assume that many of those individuals also experience migraine. What is asthma? Simply, it is a disease that affects the lungs. Your airways narrow and swell, and produce extra mucus. Breathing will then become difficult. The symptoms include wheezing, chest tightness, and shortness of breath. Coughing at night or during the early morning is a common complaint. The individual with asthma may experience difficulty sleeping because of shortness of breath, coughing, or wheezing.

Similar to migraine, you may not always have the symptoms. But when an asthmatic attack occurs, it is because something triggered a response in your lungs. For some patients with asthma, its symptoms are only a minor nuisance. For others, asthma may be greatly impacting their daily lives and can also place them in a life-threatening situation.

What Causes or Triggers Asthma?

Asthma triggers vary from person to person. Some people react to only a few while others react to many of these triggers. For migraine patients, they are asked to keep a headache diary to identify patterns and/or triggers of the headache episodes. Similarly, if you have asthma, it is important to keep track of the causes or triggers that you know provoke an asthma attack. It may require additional vigilance, as the asthma symptoms do not always occur right after exposure to the trigger. Delayed asthma episodes may occur depending on the type of trigger and how sensitive a person is to that provocateur. Table 1 lists the common triggers of an asthma attack.

TABLE 1

Asthma Triggers

- **Airborne Substances**
  (pollen, dust mites, mold spores, pet dander, cockroach waste)
- **Respiratory infections (Common cold)**
- **Physical activity (exercise-induced asthma)**
- **Cold air**
- **Air pollutants (smog, ozone, cigarette smoke)**
- **Irritants in the air**
  (charcoal grills, strong fumes, vapors or odors from paint, gasoline, perfumes, and scented soaps)
- **Strong emotions and stress**
- **Certain medications**
  (beta blockers, aspirin, ibuprofen, naproxen)
- **Sulfites and preservatives added to foods and beverages**
- **Gastroesophageal reflux disease (GERD)**
  (stomach acids back up into your throat)

TABLE 2

Migraine Triggers

- **Stress**
- **Fatigue**
- **Oversleeping**
- **Fasting or missing a meal**
- **Caffeine**
- **Alcohol, especially red wine**
- **Diet–**
  - **chocolate**
  - **aged cheese**
  - **fermented foods**
  - **MSG**
  - **aspartame**
  - **nitrites in processed meats**
- **Menses**
- **Changes in barometric pressure**
- **Changes in altitude**
- **Bright or flickering lights**
- **Certain medications (reserpine, nitrates, indomethacin)**
- **Birth control pills**
- **Postmenopausal hormone supplements**
- **Odors (perfumes, solvents, paints, glue)**

Some asthma attacks are situational and are defined by the trigger:

1. Exercise-induced asthma – these attacks may be exacerbated by cold air and/or dry winds, or sudden changes in weather.
2. Occupational asthma – these attacks are related to workplace irritants (chemical fumes, gases, or dust).
3. Allergy-induced asthma – these attacks are caused by known triggers (pollen, mold, etc).

Who is Likely to Develop Asthma?

A number of factors may increase your chances of developing asthma, including have a blood relative (parent or sibling) with a history of asthma. Other precipitating factors include:

1. A different allergic condition such as allergic rhinitis (hay fever) or atopic dermatitis (eczema).
2. Being overweight
3. Smoking tobacco products
4. Exposure to secondhand smoke (parents who smoke should consider ceasing the habit or not smoking in their child's presence)
5. Exposure to exhaust fumes or other forms of pollution
6. Exposure to workplace triggers, including chemicals used in farming, hairdressing, and manufacturing

Treatment

First, the diagnosis needs to be established. Asthma may be difficult to detect, particularly in children, age 5 or less. During your evaluation with a physician, you will be asked if you cough frequently, especially at night. The physician will also ask if your breathing problems occur after physical activity, including exercise, or at certain times of the year. You will be questioned about a family history of asthma, allergies, or other breathing problems. The physician will discuss the possibility of triggers at your home (pets) or your occupation.

To evaluate your lung function, the physician will order a breathing test (spirometry). Using a computer with a mouthpiece, the test determines how much air you can breathe out after taking a deep breath. This test can also measure your airflow before and after using asthma medication.

Similar to migraine, identifying and avoiding triggers will be of great benefit. Avoidance methods include the use of an air conditioner which decreases the amount of airborne pollen, reduces indoor humidity, and can lower exposure to dust mites. If you do not have an air conditioner, your windows should remain shut during pollen season. Minimizing dust in your home should decrease symptoms during the nighttime. In your bedroom, your pillows, mattresses, and box springs, should be encased in dust-proof covers. Hardwood floors or linoleum flooring should replace carpeting. In a damp climate, your physician may recommend the use of a dehumidifier. It is important to avoid the development of mold spores in your bathroom, kitchen, basement, and around the house. Moldy leaves and damp firewood should be removed from your yard. If you want a pet, you should avoid animals with fur or feathers. Reducing the amount of pet dander is essential. When you are cleaning your house, you should consider wearing a mask to minimize exposure to dust and other irritants. Finally, when it is cold and dry outside, cover your nose and mouth with a scarf or face mask.

There are medications available. Choice of treatment is determined by a number of factors, such as your age, asthma triggers, and your symptoms. For quick-relief of an asthma attack, the physician will prescribe a bronchodilator (inhaler) which will rapidly open your swollen airways to allow easy breathing. The drugs are administered with the use of a hand-held inhaler or a nebulizer which is a machine that converts the asthma medications to a fine mist. With a nebulizer, the medication will be inhaled through a face mask or mouthpiece. These medications should be taken at the first sign of symptoms. For children, the inhaler should always be available and it is important to establish dialogue with care-givers, teachers, and principals to advise them of the child's condition and need for quick intervention.

These "rescue" medications include short-acting beta agonists which act within minutes to relieve the symptoms of the asthma attack. Albuterol and levalbuterol are examples of these inhaled drugs. Another bronchodilator, ipratropium, may be considered. Oral and intravenous corticosteroids, such as prednisone and methylprednisolone, are effective in relieving airway inflammation. Because long-term use of these agents can cause serious side effects, they should only be used for brief intervals.

If the inhaler is being used two or more times per week, your physician may consider preventive medications which control the asthma symptoms on a daily basis. These medications may also be administered by an inhaler and include corticosteroids (fluticasone, bedesonide, flunisolide, ciclesonide, beclomethasone, mometasone, and fluticasone). These medications are the preferred agents for long-term therapy, and may require several weeks of treatment to achieve maximum benefit. Their action reduces the inflammation and swelling of the airways as you respond to known triggers. Unlike oral corticosteroids, these drugs have a low side-effect profile and are usually safe for long-term therapy. However, your physician will follow you closely to lower your risk of prolonged effects from this form of treatment.

Another type of drug – leukotriene modifiers – are taken orally, and include montlukast, zafirlukast, and zileuton. These drugs aid in blocking the response that causes inflammation of the airways. There are potential risks to these agents and include psychological symptoms such as depression, agitation, hallucinations, aggression, and suicidal thinking. It is vital that you contact your physician for any untoward signs.

The beta agonists will be prescribed in combination with a corticosteroid inhaled agent as they may precipitate a severe asthma attack. Salmeterol and formoterol are types of these inhaled drugs which open the inflamed airways. The beta agonists should never be used alone or for an acute asthma attack. There are combination agents available which include a corticosteroid inhaler as well as a long-acting beta agonist. These include combination products such as fluticasone-salmetrol, budesonide-formoterol, and formoterol-mometasone. Again, with the addition of the beta agonist, the risk of a severe asthma attack is possible.

Theophylline, another brochodilator, is used as a daily pill to help maintain open airways and by relaxing the muscles around the airways. It is not prescribed as often as it was previously.

Certain drugs that are used for the prevention of migraine, are contraindicated for patients with respiratory problems. Propranolol, a beta blocker which has been approved for migraine prophylaxis since 1977, is contraindicated for patients with concurrent asthma. If you have migraine and asthma, other therapies are available.

Chronic Migraine

Chronic Migraine is defined as the occurrence of a headache (tension-type like and/or migraine-like) on 15 or more days per month, for at least 3 months. Patients with chronic migraine typically report a history of episodic migraine headaches. In chronic migraine, there is little recovery or no complete recovery between the migraine attacks. Treatment of chronic migraine is complex, and appropriate diagnosis must be established. Many of these patients have failed standard migraine preventive therapies and may also be experiencing medication-overuse headaches. These patients may also be experiencing other conditions (Table 3). Asthma has been identified as one of these coexisting disorders.

TABLE 3

COEXISTING CONDITIONS ASSOCIATED WITH CHRONIC MIGRAINE

- Allergies
- Anxiety
- Arthritis
- Asthma
- Bronchitis
- Chronic pain
- Depression
- Fibromyalgia
- High cholesterol
- High blood pressure
- Obesity
- Sinusitis

Asthma and Chronic Migraine

Individuals with asthma who also experience episodic or occasional migraine may be more likely to develop chronic migraine, according to a National Headache Foundation-sponsored study recently published online in the journal *Headache*.

"If you have asthma along with episodic or occasional migraine, then your headaches are more likely to evolve into a more disabling form known as chronic migraine," said Vincent Martin, MD, professor of medicine in University of Cincinnati's Division of General Internal Medicine, co-director of the Headache and Facial Pain Program at the UC Neuroscience Institute and lead author in the study. Dr. Martin is President of the National Headache Foundation.

Researchers from the University of Cincinnati (UC), Montefiore Headache Center, Albert Einstein College of Medicine, and Vedanta Research studied 4,500 individuals who experienced episodic migraine or fewer than 15 headaches per month in 2008. They analyzed data from the American Migraine Prevalence and Prevention (AMPP) Study which was undertaken during 2008 and 2009. Study participants completed written questionnaires in both years. Based on responses to the 2008 questionnaire, patients were divided into two groups – one with episodic migraine and coexisting asthma, and another with episodic migraine and no asthma. Patients were questioned about medication usage, depression, and smoking status. The 2008 and 2009 questionnaires included questions about frequency of headaches, which enabled the authors to identify the participants who had progressed to chronic migraine.

After one year of follow-up, researchers found that new onset chronic migraine developed in 5.4 percent of participants who were also suffering from asthma, and in 2.5 percent of individuals without asthma. "The strength of the relationship is robust," Martin said. "Asthma was a stronger predictor of chronic migraine than depression, which other studies have found to be one of the most potent conditions associated with future development of chronic migraine."

About 12 percent of the U.S. population experiences migraine, according to Martin. Chronic migraine affects about 1 percent of the U.S. population and takes a severe toll on sufferers who often miss work and social events.

There are various theories as to why asthma may have a predictive role in chronic migraine development for individuals with episodic or occasional migraine. Martin said asthmatic patients are more likely to also have allergies and prior studies have shown that allergies may increase the number of headaches, particularly if the individual has hay fever.

Other possibilities, according to Martin, include patients with asthma who may have an overactive parasympathetic nervous system that predisposes them to attacks of both migraine and asthma. The parasympathetic nervous system is a part of the autonomic nervous system. It serves to slow the heart rate, increase intestinal and glandular activity, and relax the sphincter muscles. Dr. Martin said it is also possible that asthma may not directly cause chronic migraine, but that a shared environmental or genetic factor, like air pollution – which has been known to trigger both asthma and migraine attacks – may play a role.

Dr. Martin suggested that physicians may consider prescribing preventive medications for migraine at an earlier stage in patients who suffer from asthma and occasional migraine in order to avoid chronic migraine. "If allergies are the trigger, it begs the question, should we treat allergies more aggressively in these patients?" said Martin.

The AMPP Study was funded through research grants to the National Headache Foundation from McNeil-Janssen Scientific Affairs LLC, Raritan, N.J. The AMPP study database was donated by the McNeil-Janssen Scientific Affairs LLC to the National Headache Foundation for use in various projects. HW

Recommended Reading

1. Cady RK, Durham PL. Chronic migraine: Diagnosis and management. In: *Headache and Migraine – Biology and Management.* Oxford: Elsevier, 2015; pp 99-122
2. Martin VT, Fanning KM, Serrano D, Buse DC, Reed ML, Lipton RB. Asthma is a risk factor for new onset chronic migraine: Results from the American Migraine Prevalence and Prevention Study. *Headache* 2016; 56:118-131.
3. Messina E. Migraine triggers and how to deal with them. *Head Wise* 2014; 3:13-15.

Is It a Stroke or Is It Migraine?

The Conundrum of Late-Life Migraine Accompaniments

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After middle age, the incidence of migraine tends to decrease, and often the characteristics of migraine change as well. However, it is it is not uncommon for individuals over the age of 45 to experience their first migraine episode. Elderly patients who present with their first migraine attack may not even complain of a headache, but may only have symptoms similar to those of typical auras (warnings) associated with migraine. Patients who present to the emergency department with transient (short-lived) speech disturbances, weakness, numbness or tingling (paresthesias), or visual changes, may be diagnosed as having transient ischemic attacks (TIAs) ("mini- strokes"). The medical literature, however, has shown that these events may actually be migraine – a variant called "acephalgic migraine."

In 1980, a well-known Harvard neurologist, C. Miller Fisher, described 120 patients who experienced symptoms of a TIA, with or without headache, and coined the term "late-life migraine accompaniments." These transient migraine accompaniments include visual symptoms, paresthesias (pins and needles sensations – particularly involving the hand and lips), speech disturbances, and weakness. Visual symptoms may include those similar to the visual auras commonly seen with migraine – shimmering spots, zigzag lines, black and white dots, or squiggly lines. Some patients may experience a field cut, meaning a person may not see part of their vision on one side. All patients in Miller Fisher's study underwent cerebral angiography (a special type of imaging study to evaluate the blood vessels in the brain), and the results were either normal or revealed subtle changes which did not sufficiently explain the cause of the symptoms. Dr. Miller Fisher concluded that the patients' presentations might be consistent with migraine, despite the fact that only 50% of patients in the series suffered from headaches at the time of the TIA episode.

In 1986, Dr. Miller Fisher reported his second case series of 85 patients with transient late-life migraine accompaniments (TMA). The patients in the study were 60% men and 40% women, with 40% of patients aged 50 to 59 years, 20% age 60 to 69, and 16% were over the age of 70. The study classified the migraine accompaniments into various categories as follows:

- visual (19)
- visual and paresthesias (6)
- visual and speech disturbance (2)
- visual, paresthesias, and speech disturbance (3)
- visual, paresthesias, speech disturbance, and paresis (20)
- visual and brain stem symptoms (3)
- no visual accompaniments but only paresthesias, speech disturbance, and paresis (32)

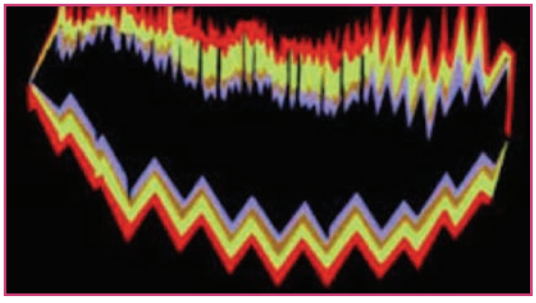
Prior to these events, 65% of patients had a history of headaches and only 40% of these events were accompanied by headaches. This report expanded further the idea that these transient neurologic symptoms are reflective of migraine physiology as most patients had repetitive, similar episodes, all beginning late in life.

TMAs are transient, by definition, but can progress during the event, meaning that after they begin, the attack may change in character over the course of the episode. For example, paresthesias may march from one part of the body to the next over a few minutes. The symptoms have a "build-up" and evolve. A person may begin experiencing flashing lights, then a field cut, and then develop a speech disturbance with or without resolution of the field cut. The length of time of the TMA varies, but on average, most people report a duration from 5 minutes to a few hours. Some patients even experience symptoms for over 24 hours, although this is rare.

"Late-life migraine accompaniments" are not rare; however, they are a diagnosis of exclusion, and other reasons for these symptoms must be explored prior to establishing the diagnosis of TMA. Other causes to consider include transient ischemic attacks (TIAs), seizures, subarachnoid hemorrhages (brain hemorrhages), vascular malformations, and brain tumors. These symptoms merit an immediate visit to a doctor or the emergency department for evaluation. "Late-life migraine accompaniments" are a benign condition, but other causes of these symptoms are not, and must first be excluded. Certain tests such as basic blood laboratory studies, magnetic resonance imaging (MRI), electroencephalography (EEG), and special imaging of the blood vessels in the brain and neck (magnetic resonance or CT angiography, or carotid ultrasound) will likely be performed to help investigate the causes of the symptoms.

There are a few hints to clinically distinguish between migraine auras and TIAs. Migraine auras tend to have a gradual build-up and evolve over time, and they may move from one body part to the other, or progress from visual to sensory to speech disturbances over a period of time. The visual aura phenomenon are often "positive" – involving both visual fields or moving from one side to the other and progressing over the course of minutes to an hour. By positive, it means they may flash or shimmer (Figure 1).

Figure 1



They can enlarge or change size. After being positive, they can become negative with blind spots. Visual symptoms in TIAs tend to be "negative" from the start of the episode, meaning patients often describe complete loss of vision, mainly on one side or in one eye. This develops over seconds, may last for a few minutes, then resolve within seconds. TIAs tend not to cause the positive symptoms. TIA symptoms are abrupt, whereas migraine auras tend to be gradual in onset.

When distinguishing between sensory phenomena in aura and sensory phenomena in TIA, the distribution, time course, and repetitiveness are important. Aura tends to involve a sensation of tingling or "pins and needles" that may start in one part of the body and then move up that body part and sequence to another. The hands and face are most commonly affected (this is called a "cheiro-oral" distribution) (Figure 2).

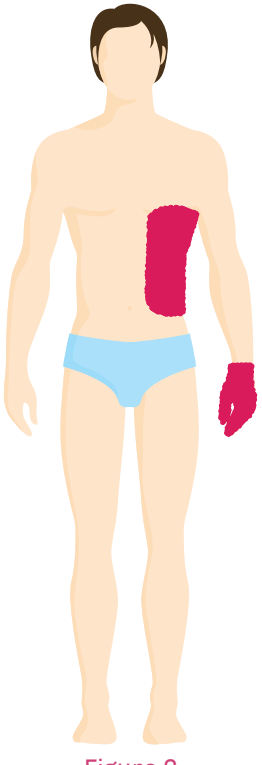


Figure 2

"Migraine attacks occurring late in life may also be accompanied by transient neurologic symptoms like visual changes, speech disturbances, paresthesias, and weakness."

As mentioned previously, auras gradually progress over time, and then the paresthesias may begin to resolve, with the first area involved clearing while the next region becomes involved. TIAs often cause complete loss of sensation on one side of the body (numbness). These symptoms will occur throughout the entire side or limb simultaneously, so the face and arm may be completely numb at the same moment. Then as quickly as the sensation occurred, it resolves abruptly. Sensory changes in the mouth or tongue are rarely due to TIAs.

Migraine auras must also be differentiated from seizures, and the visual symptoms for each are sometimes more difficult to distinguish, especially if the headache is mild or completely absent at the time of presentation. Seizures which originate from the occipital lobe, where vision is processed by the brain, can cause transient visual changes. These visual changes are frequently characterized as colorful circles or balls that are bright and multiple within the field of vision. The circles may change colors, and often begin on the outer side of one's vision, and then move towards the middle or to the opposite side. The circles may increase in number and size, and often the seizure lasts for seconds to at most a few minutes. The visual auras of migraine, while they do change and progress over time, are commonly black and white and either linear or zigzags, although some patients report they experience multiple colors where the zigzag lines are seen.

"Late-life migraine accompaniments" are often recurrent. It is important to consider underlying medical issues before initiating any medications or other treatments. There have been no randomized controlled trials researching specific treatments for late-life migraine accompaniments. However, most physicians treat these episodes similarly to classic migraine with aura. Some classes of medications that may act as preventives include beta-blockers (propranolol, metoprolol), antiepileptics (valproic acid, topiramate, gabapentin, lamotrigine), and antidepressants (amitriptyline, nortriptyline, venlafaxine), among others. Commonly used anti-inflammatory medications (acetaminophen, ibuprofen, naproxen) often have no effect on aura symptoms. Triptans, while often very effective for the treatment of migraine headaches, do not alter the aura or its progression. Triptans are avoided in elderly patients with risk factors for heart disease and stroke.

Conclusion

It is not rare for patients to experience their first migraine late in life. Migraine attacks occurring late in life may also be accompanied by transient neurologic symptoms like visual changes, speech disturbances, paresthesias, and weakness. Visual symptoms and paresthesias are the most common "late-life migraine accompaniments." These symptoms are often recurrent and stereotyped, and they evolve over the course of the episode, sometimes progressing from one symptom modality to another within the same episode. While "late-life migraine accompaniments" are benign, it is important to exclude other causes of these symptoms, such as transient ischemic attacks, seizures, or brain hemorrhages. Further research is needed regarding specific treatments for "late-life migraine accompaniments," especially for the acute management of the aura-like symptoms in the elderly population. HW

Recommended Reading

1. Fisher CM. Late-life migraine accompaniments as a cause of unexplained transient ischemic attacks. *Canadian Journal of Neurological Sciences* 1980;7:9-17.
2. Fisher CM. Late-life migraine accompaniments: Further experience. *Stroke* 1986;17:1033-1042.
3. Vongvaivanich K, Lertakyamanee P, Silberstein SD, Dodick DW. Late-life migraine accompaniments: A narrative review. *Cephalalgia* 2015; 35:894-911.

RAISING MIGRAINE AWARENESS

-One Mile at a Time-

Erick Ward
National Headache Foundation
Chicago, IL

Migraine is often stigmatized and patients, due to the disease, don't often have opportunities to fight that stigma for themselves. The nonprofit organization, Miles for Migraine, is sending this message to individuals with migraine: there is no action too small when it comes to creating awareness and fighting the stigma of migraine.

"Most people don't understand what migraine is," said Shirley Kessel, President of Miles for Migraine. She said many don't realize that migraine affects not just the person experiencing migraine, but everyone around them.

"It all starts with the lack of awareness," said Janet Corroo, RN, Vice President of Miles for Migraine. "It drives the stigma. It drives the lack of funding and it drives the lack of funding for training. There aren't enough specialists."

Miles for Migraine, a 501(c)(3) nonprofit founded in 2008 by Eileen Jones, RN, PHN, started as a way to build support for headache research.

Jones, who first visited Congress with the Alliance for Headache Disorders Advocacy (AHDA) in 2007, was discouraged by the lack of funding for headache research. Jones and AHDA were told that an increase in the National Institutes of Health (NIH) spending allowance for headache research grants was unlikely to increase in the near future. According to the Miles for Migraine website, milesformigraine.org, Jones and AHDA members were told by Congress that they needed to do more to build public support. Congress told them that until citizens started to demand funding, NIH would not increase funding.

Jones became the founder of Miles for Migraine in response to the challenge from Congressional representatives. Jones, who served as the president for Miles for Migraine from 2008 to 2016, started the organization with a 5K/10K run and 2-mile walk to raise public awareness for migraine and headache disorders. The first race was held in San Francisco during the fall of 2008, and attracted about 200 participants. The organization has grown since the first race. It initially expanded when Kessel brought the race to Philadelphia in 2013.

After Kessel's youngest daughter, Sydney, was diagnosed with chronic migraine at age 16, they decided it was time to do something. Kessel, who also experiences migraine, said she couldn't believe how little migraine treatments had changed. Kessel said her daughter's doctor was suggesting the same medications for Sydney that were first suggested to her.

Kessel has three daughters, two of whom have been diagnosed with migraine. After Sydney's diagnosis, she started looking for ways to get involved and she discovered Miles for Migraine. Kessel contacted Jones and brought the race to Philadelphia in 2013. Kessel's role has gradually increased. In 2016, she became president of the organization.

"I thought to myself this is a real opportunity for so many people. Watching my own daughters struggle and I just knew I had to do it."

The fourth-annual walk/run in Philadelphia was held in October with over 500 participants. This represents a significant increase from the 60

Shirley Kessel, Drs. Rick Mankin and Lisa Goldstein

Shirley Kessel and Katie Golden

participants at the first race in 2013. Kessel said she understands that not every migraine patient is able to participate in the walk/run due to their illness, but she still encourages everyone to attend.

"You're advocating just by being there," Kessel said. "When they (media and sponsors) see how many people are actually invested and interested in an event like this, they're going to take a second look and realize the work we're doing is important."

Kessel said she wants to build a community for individuals with migraine and other headache disorders.

"We want to create a place where people can come and advocate for themselves, and thereby reduce the stigma associated with migraine," Kessel said. "It's not until people with migraine and other headache disorders start to do that, will the perception of people with migraine and other headache disorders start to change."

Corroo encourages individuals with serious headache conditions to get involved any way they can. She calls it the "-ings." Corroo said any action (walking for migraine, talking about migraine with friends and family, blogging about migraine) are all ways to generate awareness.

"If we create awareness, the funding will follow. The fellowship funding will follow and the stigma will be lifted," Corroo said.

Miles for Migraine continues to expand its outreach. In September, the organization added a third race location, Naperville, Illinois, a suburb of Chicago. The schedule will continue to expand in 2017, when races will be added in Washington, D.C. and Phoenix. Two more locations are expected to be added in 2018, according to Kessel; however, the locations have not yet been decided.

"Our long-term goal is to have 25 races," Kessel said.

In addition to increasing awareness through the races, Miles for Migraine has also raised funds for headache research. Since 2008, the organization has donated $79,000 to AHDA and to hospitals in Philadelphia and San Francisco.

Miles for Migraine is more than walk/runs, however. Beginning in June 2014, the organization began hosting youth camps aimed at children and teens impacted by migraine or other headache disorders. Corroo said the goal is to provide the children and teens in attendance with a toolkit to cope with migraine and create a supportive community. In previous youth camps, artists and psychologists have been among the speakers introducing different tools.

Corroo added that the attendees learn a lot from each other, too.

"Even as a nurse, I may have knowledge about the disorder" said Corroo, who is a clinical nurse at the University of California San Francisco Headache Center. "But I don't have the practical experiences."

She said migraine is a disease that creates a lot of isolation and helplessness, especially among teens. At the youth camps, the attendees have a chance to see they are not alone. Corroo said the last group continues to work together to try to turn city hall in San Francisco purple for a day in June in honor of National Migraine and Headache Awareness Month.

The youth camps are for more than just the children and teens. During the program, parents and children are divided. Corroo said while the kids are learning tools for coping with migraine, parents learn how they can be advocates for their children and have an opportunity to ask questions. Many of the families connected afterwards, Corroo said. She said some keep in contact and turn the youth camp into more than just a one-day session.

Constantly, there are opportunities for raising awareness and educating the public about migraine and other headache disorders. Kessel and Corro said it's important people know that while they are looking for runners and volunteers, there is always something that those with migraine can do to promote advocacy.

"There are ways people can help, even from the darkness of their room," Corroo said. **HW**

Leave a legacy to the National Headache Foundation.

Charitable Giving

There are different ways that individuals can support the mission of the National Headache Foundation through donations. A present donation of money or other items of value is the most frequent manner of support. Provisions for specific bequests or residual bequests in one's will or trust are often utilized. As part of one's estate planning or planned giving, an individual can provide for charitable giving that may minimize gift and estate taxes while providing for (a) the smooth transfer of ownership, (b) the care and support of dependents, and (c) the avoidance of disputes among survivors.

Three commonly used planned giving vehicles are:

1. **Charitable remainder annuity trust.** Assets (generally securities) are transferred to a trust. The trust makes fixed annual payments to the donor or other specified beneficiaries named by the donor. When the trust terminates upon the death of the donor or other specified beneficiaries, the remainder of the assets in the trust pass to the charity. A trust document is required. The donor retains the ability to change the designated charity.

2. **Charitable remainder unitrust.** Assets are transferred to a trust. The donor or other specified beneficiaries named by the donor receive fluctuating payouts from the trust (a percentage of the value of the principal) and, upon the death of the donor or other specified beneficiaries, the remainder of the assets passes to the designated charity. A trust document is required. The donor retains the ability to change designated charity.

3. **Charitable gift annuity.** The donor, under a contract with a charity, transfers cash or securities to the charity. The charity pays the designated beneficiary a fixed income for life. Upon the death of the beneficiary, the remaining balance passes to the charity. No trust document is required and the charity cannot be changed.

NATIONAL HEADACHE FOUNDATION™

Please see Important Safety Information on next page.

ONZETRA™ Xsail™
(sumatriptan nasal powder)
11 mg per nosepiece

Shown in actual size

ONZETRA™ Xsail™ provides FAST pain relief

Almost half of migraine sufferers experienced pain relief in 30 minutes (42% vs 27% on placebo) and 68% experienced pain relief in 2 hours vs 45% on placebo.

Breath Powered® delivery

ONZETRA is taken with a small, innovative device called Xsail. It uses your own breath to deliver migraine medicine directly to the back of your nose, an area with the potential for fast absorption.

Important Safety Information

What is ONZETRA™ Xsail™ (sumatriptan nasal powder) used for?
ONZETRA Xsail is a prescription medication approved for the acute treatment of migraine, with or without aura in adults. ONZETRA Xsail is used for people who have been told by a healthcare provider that they have migraine headaches. ONZETRA Xsail is not for the prevention of migraines or for other types of headaches, including cluster headache.

What important information should I know about ONZETRA Xsail?
ONZETRA Xsail may cause serious side effects, including:

- **Heart attack and other heart problems**, which may lead to death. Stop using ONZETRA Xsail and get emergency medical help right away if you have any symptoms of a heart attack like shortness of breath or tightness, pain, pressure, or heaviness in your chest, throat, neck, or jaw that is severe or does not go away
- **Changes in color or sensation in your fingers and toes** (Raynaud's syndrome)
- **Stomach and intestinal problems** (gastrointestinal and colonic ischemic events)
- **Problems with blood circulation to your legs and feet** (peripheral vascular ischemia)
- **Serious allergic reactions** (symptoms include hives; tongue, mouth, lip, or throat swelling; problems breathing)
- **Medication overuse headaches.** Some people who use ONZETRA Xsail too many times may have worse headaches. If your headaches get worse your doctor may decide to stop your treatment with ONZETRA Xsail
- **Serotonin syndrome**, a rare but serious problem that can happen in people using ONZETRA Xsail, especially if ONZETRA Xsail is used with antidepressant medicines called SSRIs, SNRIs, or TCAs. Call your doctor right away if you have any of the following symptoms of serotonin syndrome: mental changes such as seeing things that are not there (hallucinations), agitation, or coma; fast heartbeat; changes in blood pressure; high body temperature; tight muscles; trouble walking; or nausea, vomiting, or diarrhea
- **Seizures.** Seizures have happened in people taking sumatriptan who have never had seizures before

The most common side effects of ONZETRA Xsail are abnormal taste, discomfort of your nose or throat, runny nose, and stuffy nose. This is not a complete list of side effects. Tell your doctor about any side effect that bothers you or does not go away.

$0 co-pay on your first prescription*

OnTrack Support is a helpful program of support and information for ONZETRA.

ON TRACK Support

Ask your doctor IF ONZETRA IS RIGHT FOR YOU

Visit onzetra.com

*Restrictions apply. Must have private insurance. Those eligible for Medicare, Medicaid, or any other government healthcare program are not eligible for this program. Card must be activated to receive $0 co-pay. Maximum benefit of $100 per prescription regardless of the co-pay amount.

Who should not take ONZETRA Xsail?
Do not take ONZETRA Xsail or stop using ONZETRA Xsail if you:
- Have heart problems or a history of heart problems
- Have had a stroke, transient ischemic attacks (TIAs), or problems with your blood circulation
- Have uncontrolled high blood pressure
- Have hemiplegic migraines or basilar migraines. If you are not sure if you have these, ask your doctor
- Have peripheral vascular disease (narrowing of blood vessels to the legs, arms, stomach, intestines, or kidneys)
- Have taken other migraine medications in the last 24 hours, including other triptans, ergots, or ergot-type medications. Ask your doctor for a list of these medicines if you are not sure
- Are taking a medicine called a monoamine oxidase inhibitor (MAOI). MAOIs cannot be taken within 14 days before or after taking ONZETRA Xsail
- Have severe liver problems
- Have an allergy to sumatriptan, the medicine in ONZETRA Xsail, or any of the components in ONZETRA Xsail

What should I tell my healthcare provider before taking ONZETRA Xsail?
Before you take ONZETRA Xsail, tell your doctor about all your medical conditions and all the medicines you take, including prescription medicines, especially antidepressants, and all over-the-counter medicines, vitamins, and herbal supplements.

What should I avoid while taking ONZETRA Xsail?
ONZETRA Xsail can cause dizziness, weakness, or drowsiness. If you have these symptoms, do not drive a car, use machinery, or do anything where you need to be alert.

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

For additional Important Safety Information about ONZETRA Xsail, please see the full Prescribing Information, including Patient Information and Instructions for Use, on onzetra.com.

Please see Important Facts on next page.

IMPORTANT FACTS

(Pronounced: On ze' trah Eks'-seil)

ONZETRA™ Xsail™
(sumatriptan nasal powder)
11 mg per nosepiece

ABOUT ONZETRA™ XSAIL™

ONZETRA Xsail is a prescription medicine for the acute treatment of migraine, with or without aura in adults.

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- Have an allergy to sumatriptan, the medicine in ONZETRA Xsail, or any of the components in ONZETRA Xsail
- Have severe liver problems

ONZETRA XSAIL MAY CAUSE SERIOUS SIDE EFFECTS

- Stop using ONZETRA Xsail and get emergency medical help right away if you have any symptoms of a heart attack like shortness of breath or tightness, pain, pressure, or heaviness in your chest, throat, neck, or jaw that is severe or does not go away
- Changes in color or sensation in your fingers and toes (Raynaud's syndrome)
- Stomach and intestinal problems (gastrointestinal and colonic ischemic events)
- Problems with blood circulation to your legs and feet (peripheral vascular ischemia)
- Some people who use ONZETRA Xsail too many times may have worse headaches
- Serotonin syndrome, a rare but serious problem that can happen in people using ONZETRA Xsail, especially if ONZETRA Xsail is used with antidepressant medicines. Call your doctor right away if you experience mental changes such as seeing things that are not there (hallucinations), agitation, or coma; fast heartbeat; changes in blood pressure; fever; trouble walking; or nausea, vomiting, or diarrhea
- Serious allergic reactions (symptoms include hives; tongue, mouth, lip, or throat swelling; problems breathing)
- Seizures have happened in people taking sumatriptan who have never had seizures before

MOST COMMON SIDE EFFECTS OF ONZETRA XSAIL

The most common side effects in patients taking ONZETRA Xsail were abnormal taste, discomfort of the nose or throat, runny nose, and stuffy nose.

- **This is not a complete list of side effects**
- **Tell your doctor if you have any side effect that bothers you or does not go away**

ADDITIONAL IMPORTANT INFORMATION

- **Tell your doctor about all your medical conditions and all the medicines you take, including prescription medicines, especially antidepressants, and all over-the-counter medicines, vitamins, and herbal supplements before starting ONZETRA Xsail**
- ONZETRA Xsail can cause dizziness, weakness, or drowsiness. If you have these symptoms, do not drive a car, use machinery, or do anything where you need to be alert
- ONZETRA Xsail has not been studied in patients less than age 18 or in pregnant women. Tell your doctor if you may be pregnant
- Avoid breastfeeding for 12 hours after treatment with ONZETRA Xsail. Tell your doctor if you are breastfeeding or plan to breastfeed
- Take ONZETRA Xsail exactly as your doctor prescribes it
- Read the Patient Information and Instructions for Use before using ONZETRA Xsail. If you have any questions about how to use ONZETRA Xsail, ask your doctor or call the Nurse Hotline at 1-844-ONZETRA (1-844-669-3872). For additional Important Safety Information about ONZETRA Xsail, please see the full Prescribing Information, including Patient Information and Instructions for Use, at onzetra.com

NEED MORE INFORMATION?

This information about ONZETRA Xsail is important but is not complete. To learn more:

- Talk to your healthcare provider or pharmacist
- Visit onzetra.com for FDA-approved Prescribing Information, including Instructions for Use, or call 1-844-ONZETRA (1-844-669-3872)

NEED PRESCRIPTION ASSISTANCE?

- Call 1-844-ONZETRA (1-844-669-3872) to speak with a member of our support team or sign up for the free OnTrack Support program for financial assistance, insurance information, and a co-pay savings card

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HOW CAN NECK PAIN
be a protector for migraine attacks?

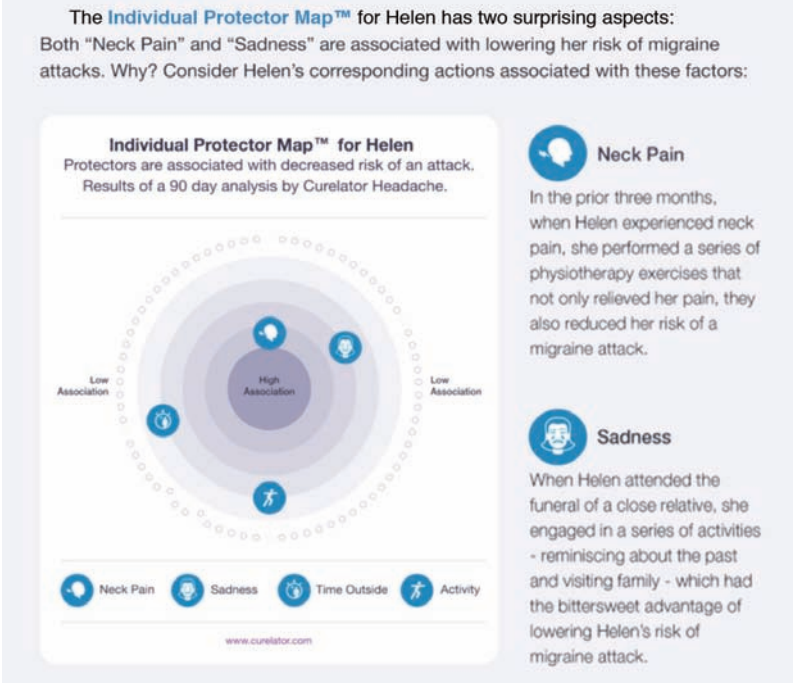
Alec Mian, PhD,
CEO and Founder of Curelator Inc.
Cambridge, MA

This article is based on an interview with Helen P, one of the initial users of Curelator Headache Map. Curelator Headache was featured in *HeadWise* 2015; 5:22-25. It is a digital tool that allows individuals to track and discover the various factors associated with migraine headaches.

Alec Mian: Helen P has the distinction of being the first in a group of users in whom neck pain surprisingly turned up as a protector.

Helen P: When you first interviewed me months ago, I was definitely puzzled to see neck pain on my Protector Map™! Did anyone else have neck pain as a protector on their maps?

Alec: Neck pain is commonly thought to be a warning sign or a symptom of a migraine attack. So far, and it is early days, we have found seven other users who have neck pain as a protector on their maps. I have interviewed a couple of them and their responses were similar to Helen's response. When people experience neck pain, they may do a variety of things - apply a heat pad, lie down, stretch. Therefore, all of these things become associated with that person's neck pain. So my first question to anyone with an unexpected protector or trigger is, "What things were you doing when you recorded that factor?" That's why, in our initial interview I asked, "What do you do when you get neck pain?"



Alec: I spoke with another Curelator user, who was a doctor and who also had neck pain as a protector. He does daily massage of his shoulder muscles; 5 to 10 minutes, lying – back down with a roller. **He lies down on the roller and believes it lessens neck tension from sitting at a desk and also that it relieves his migraines. He added that he tries to be really conscious of when he is 'scrunched up' while sitting.**

Helen: I am also much more aware of my posture now than before I started physiotherapy…when my physiotherapist taped my trapezius muscle, the relief was immediate. I left it on for 10 days and the goal was to retrain my muscles. I think the tension there starts off my neck pain.

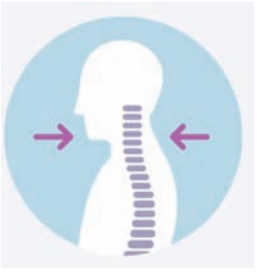
Alec: Helen have you noticed a relationship between your neck pain exercises and your attacks?

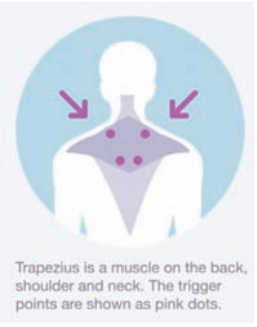
Helen: Yes, one point of interest is that due to an injury, I have had to stop all lower back exercises, and since then I've noticed a significant increase in headache intensity and duration, neck and shoulder pain. I also noticed a few days ago that the neck pain as a protector has suddenly disappeared. So, perhaps cutting back on my exercises is what caused neck pain to disappear as a protector and that may help explain my increase in headaches.

Alec: That is very interesting – you were actually doing a natural experiment! The other unusual protector that appeared on your maps is sadness.

Helen: Yes, I was surprised to see that too. It was associated with a bereavement. There was no time for sitting down and moping around. So I felt incredibly sad but I was with people. There have been other times when I was really sad and didn't have a headache, probably because we were remembering the fun times or the good times. They both had to do with bereavements.

Alec: There is substantial evidence in clinical literature and among physiotherapists to support the use of Cervical Neck Retraction to alleviate headaches associated with neck pain. However, it is advisable for patients to consult their personal physicians before trying the exercises described in this article. HW

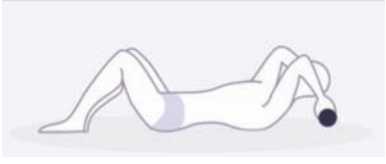




Trapezius is a muscle on the back, shoulder and neck. The trigger points are shown as pink dots.

INSTRUCTION FOR CERVICAL NECK RETRACTION:

1. Lean against a wall, shoulders and bottom touching, knees slightly bent, 6 inches from wall, hip width apart.
2. Lean back of head against wall. Slide head up the wall, bringing chin down, but not looking down, giving yourself a double chin. **Hold this position.**
   Build up to 5 minutes.



Recommended Reading

1. Aokhealth, NeckTek, Cervical Pain and the Deep Neck Flexors. Access at: https://aokhealth.securestand.com/xq/ASP/SellerID.4750/ProductID.2626/qx/pdf/Cervical_Pain_and_the_Deep_Neck_Flexors.pdf
2. Mian A, Donoghue S. A new tool for identifying headache triggers and symptoms. *Head Wise* 2015; 5:22-25.
3. Page P. Cervicogenic headaches: An evidence-led approach to clinical management. Int *J Sports Phys Ther* 2011; 6:254–266.
4. van Ettekoven, Lucas C. Efficacy of physiotherapy including a craniocervical training programme for tension-type headache; A randomized clinical trial. *Cephalalgia* 2006; 26:983–991.

THE HEADACHE CLINICS

featuring:

The Diamond Headache Clinic
Chicago, Illinois

The Diamond Headache Clinic is the first comprehensive and private headache center in the world that is dedicated solely to the diagnosis and treatment of headache pain. The Clinic was founded in 1972 by Seymour Diamond, MD, who had begun treating headache patients in 1963 as part of his family practice. In 1972, he limited his practice to the management of headache patients. The following is based on an interview with Doctor Merle Diamond, the Managing Director and President, and Mr. Konrad Kothmann, the CFO/COO.

Dr. Merle Diamond received a B.S. with honors from the University of Michigan in Ann Arbor, MI, and was awarded her M.D. from Northwestern University Medical School in Chicago. She completed residencies in Emergency Medicine/Internal Medicine at the McGaw Medical Center of Northwestern University. She is a former fellow of the American College of Emergency Physicians and currently is a Diplomate of the American Board of Internal Medicine. She received the Certificate of Added Qualification in Headache Medicine in 2001, and the Subspecialty Certification for Headache Medicine from the United Council for Neurologic Subspecialties in 2007.

She joined the staff of the Diamond Headache Clinic in 1989 after serving as an attending physician and clinical instructor at Northwestern University Hospital in Chicago, and as an attending physician at Evanston and St. Francis hospitals, both in Evanston, IL. Currently, Dr. Diamond is an attending physician in Internal Medicine and Director of the Diamond Headache Inpatient Unit at Presence-Saint Joseph Hospital, Chicago. She is a Clinical Assistant Professor, Department of Medicine, Rosalind Franklin University of Medicine and Science/Chicago Medical School. Also, she is a Lecturer in the Department of Medicine (Neurology), Loyola University of Chicago's Stritch School of Medicine.

Dr. Merle Diamond serves as Director of the courses sponsored by the Diamond Research & Educational Foundation, and is a member of the Board of the National Headache Foundation. She has written numerous articles on the topic of headache, particularly migraine in women and the emergency department treatment of migraine and headache. She was an Associate Editor of *Headache and Migraine – Biology and Management*, which was published in 2015 by Elsevier.

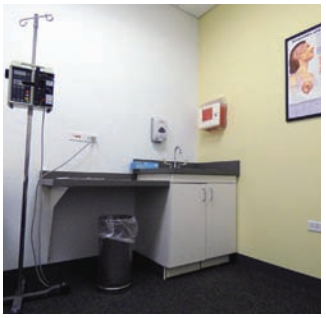
The Co-Director of the Clinic is **George J. Urban, MD**, who joined the staff in 1990. Dr. Urban is a native of Presov, Czechoslovakia. Dr. Urban graduated from Safarik University Medical School in 1974, and from there, completed a residency and fellowship in Neurology at the Municipal Hospital, Kosice, Czechoslovakia. He emigrated to the US in 1985, first settling in San Francisco and then moving to the Midwest. He completed a residency in Internal Medicine at Rosalind Franklin University of Medicine and Science in North Chicago, IL.

Dr. Urban is currently on the staff of Presence-Saint Joseph Hospital and is a Clinical Instructor in the Department of Medicine at Rosalind Franklin University of Medicine and Science, and a Lecturer in the Department of Medicine


George Urban, MD


Lana Tymouch, PA


Konrad Kothmann, Dr. Brad Torphy, Dr. Merle Diamond


Patient Exam Room

(Neurology) at Loyola University of Chicago's Stritch School of Medicine. He received the Certificate of Added Qualification in Headache Medicine in 2016.

Alexander Feoktistov, MD, PhD, is Director of Research at the Clinic. He joined the medical staff of the Clinic in 2011 but originally arrived at the Clinic in 2001 as a Fellow. He received his M.D. with honors at Moscow Medical Academy, Moscow, Russia, where he also completed a residency in neurology. In 2002, Doctor Feoktistov received a Ph.D. in neurology from the Department of Neurology at the Moscow Medical Academy. He received board certification in neurology and psychotherapy in Russia, and served as Deputy of Medical Director at the Professor Alexander Vein Pain Clinic in Moscow. In 2001, Doctor Feoktistov received a Presidential award for a 1-year fellowship of his choice. He was approved to study headache at the Diamond Headache Clinic in Chicago, working directly with Seymour Diamond, MD and the other physicians. From 2002 to 2007, he remained on staff at the Diamond Headache Clinic, conducting research and assisting in clinical duties. In 2007, Doctor Feoktistov started a residency in medicine at Saint Joseph Hospital, Chicago. From 2010 through 2011, he completed a fellowship in pain medicine at the Cleveland Clinic Foundation.

Dr. Feoktistov received board certification in Internal Medicine from the American Board of Internal Medicine (ABIM), in 2010, and has received Certification in Headache Medicine from the United Council of Neurological Subspecialties in 2012. He is also a certified Diplomate in Pain Medicine by the American Board of Pain Medicine. In addition to his research activities at the Clinic, he provides interventional pain procedures including BOTOX® injections, nerve blocks, and facet blocks.

Bradley Torphy, MD, joined the staff in 2012. Dr. Torphy graduated from Indiana University in Bloomington, IN, with a double major BA in Biology and History. Prior to attending medical school, he held numerous positions with the Johnson & Johnson Corporation. He graduated from Xavier University School of Medicine, where he received the President's Scholarship. He completed his residency at the University of Illinois College of Medicine, which is affiliated with Presence-Saint Joseph Hospital, Chicago, where he served as Chief Resident. Prior to joining the Clinic, Dr. Torphy practiced at MacNeal Hospital in Berwyn, IL, where he was named Physician of the Year by the inpatient nursing staff.

He is actively involved in headache research, and has presented these findings at numerous national and international headache conferences. In 2016, he received the Certificate of Added Qualification in Headache Medicine (CAQ). Currently, he is an instructor of Clinical Medicine at Rush Medical College, Chicago.

The other health care providers at the Clinic include certified Physician Assistants, **Christine Lantin, Lana Tymouch, and Caitlin Johnston**. Ms. Lantin joined the Clinic staff in 1997. Ms. Lantin's mission is to ensure that a patient's treatment plan is executed in a closely guided way. She sees patients at the Clinic and also provides phone consultations for the patients of Dr. Merle Diamond. Ms. Lantin received her MMA in Physician Assistant Studies at Midwestern University, Downers Grove, IL.

Ms. Tymouch joined the staff in 2002 after completing PA training at Cook County Hospital/Malcolm X College in Chicago. She sees patients at the Clinic, and also provides phone consultations for patients of Dr. George Urban. Her focus of interest at the outpatient clinic is IV treatment, which is prescribed for patients with migraine or cluster headache conditions.

Mmes. Lantin and Tymouch received the Certificate of Added Qualification in Headache Medicine in 2016.

Ms. Johnston is a graduate of the Rush University Physician Assistant program in Chicago, IL, where she completed an additional 9 months of advanced clinical training in internal medicine. She joined the Clinic staff in 2015 where


Inpatient Unit Reception


Brad Torphy, MD


Alexander Feokitstov, MD

she works closely with Dr. Merle Diamond, caring for patients in both the clinic and the inpatient unit. Ms. Johnston focuses on creating integrative treatment plans with a special emphasis on yoga and meditation.

At the Diamond Headache Clinic, the staff includes: **Konrad Kothmann, the CFO/COO**; **Brian Wolf and Amy Hatton, Procedure Coordinators**; **Harriet Marcelles, Staff Operations Manager**; **Sonia Rodriguez, New Patient Coordinator**; **Dr. Elena Feoktistov, Research**; and, **Steven Mui, Project Coordinator for Research and Technology**.

In 1981, Dr. Seymour Diamond established a self-contained inpatient unit for refractory headache patients. The 43-bed Unit is now located at Presence-Saint Joseph Hospital, Chicago, and is located across from Lincoln Park. In addition to the Clinic physicians and physician assistants, the staff of the inpatient unit is multidisciplinary. It includes the Director of Behavioral Medicine, Andrew Beaty, PsyD, who joined the staff in 2012. Dr. Beatty earned his doctorate in clinical psychology from the Chicago School of Professional Psychology. He completed his pre-doctoral internship and post-doctoral fellowship in clinical psychology at the Isaac Ray Center/Cermak Health Services of Cook County. He holds academic appointments at Midwestern University/ Behavioral Medicine Department and the Chicago School of Professional Psychology. Dr. Beatty specializes in health psychology and provides individual therapy, group therapy, and neuropsychological assessment to patients and their families.

Richard Wenzel, PharmD serves as an integral part of the Diamond Headache Inpatient Unit's multidisciplinary approach as the Staff Pharmacologist. Dr. Wenzel joined the staff in 1999. He received his Doctor of Pharmacy at the University of Illinois. In addition to his responsibilities to the entire hospital, Dr. Wenzel provides classes for the inpatients on the Unit to reinforce education about the medications that they are using. He has designed written and video patient educational material, as well as pharmacy and nursing staff development, and provides drug information to physicians and other health care professionals. He serves as a Clinical Assistant Professor at the University of Illinois-Chicago, Department of Pharmacy Practice. Academic posts at other Colleges of Pharmacy include Midwestern University (Downers Grove, IL), Drake University (Des Moines, IA), University of Iowa (Iowa City, IA), University of Arizona (Tucson, AZ), and Southern Illinois University (Edwardsville, IL).

The health care team at the Unit include nurses, medical assistants, biofeedback technicians, physical and activity therapists, counselors, and a dietician. These individuals are involved in the various aspects of the inpatient's experience on the Unit, and are knowledgeable in the care of the headache patient.

Patients of all ages experiencing disabling headaches, including children, are evaluated at the Clinic. A referral from a health care practitioner (HCP) is not necessary although the Clinic physicians would be happy to coordinate care with your local HCP. Patients have visited the Clinic from all 50 states, and the physicians have treated international patients. The majority of the patients at the Clinic are middle-aged women, suffering from severe, daily, and debilitating headaches. Many patients have coexisting conditions associated with their headaches, including mental health disorders (anxiety, depression, bi-polar disorder) and obesity.

The Diamond Headache Clinic does not specialize in one particular headache type. Headache conditions that are assessed include: chronic migraine with or without aura; cluster headache; hemicrania continua; medication-overuse headache; New Daily Persistent Headache; post-traumatic headache; menstrual headaches; hemiplegic migraine; chronic tension-type headaches; and, pediatric migraine.

A typical day at the Clinic starts at 8:30am, when patients begin to arrive. On average, 60 to 80 patients are evaluated at the Clinic per day. For the health care team, their day has started earlier when rounds are made at the Inpatient Unit. During that time, the hospitalized patients will be assessed

and clinical decisions will be made for the patients based on their progress and individual requirements.

At the initial visit, the new patient should expect to spend 2 to 3 hours meeting with the healthcare team with the goal of establishing a multidisciplinary, individualized treatment approach. After providing a comprehensive headache history, each patient undergoes a thorough evaluation, including a physical and neurological examination. Laboratory studies that are usually required include complete blood count, thyroid testing, urinalysis, and EKG. An MRI or CT scan of the head or neck may be required or repeated. The team will review the patient's medical and surgical history, conduct a nutritional assessment, and discuss life-style and stress questions in order to determine any triggers or contributing factors to the patient's headache pattern. Utilizing the total evaluation, the physician can establish an appropriate diagnosis and therapeutic regimen. Treatment may include a series of outpatient procedures, specific preventive and abortive agents, and lifestyle modifications in the areas of diet, recreation, and sleep hygiene. Interventional procedures may be prescribed, such as facet blocks, nerve blocks, Botox injections, TPI (trigger point) injections, and SPG (sphenopalatine ganglion) blocks. Alternative therapies may be considered, including acupuncture, biofeedback, massage therapy, physical and recreational therapy, and psychological intervention.

If admission to the Diamond Inpatient Headache Unit is recommended, the inpatient stay will likely range from 7 to 10 days. Hospitalization may be started on the same day as the initial visit. If indicated when scheduling the new patient visit, the patient may be advised that admission is possible and they should be prepared to be hospitalized. A follow-up Clinic visit will be 4 to 8 weeks after the first appointment.

At the Clinic, each staff member strives to make the patient's every visit as comfortable and convenient as possible. They appreciate that preparation for the initial visit may be overwhelming and provide pre-visit, useful information regarding the Clinic, treatment options, procedures, etc.

When giving general advice to a headache patient, the staff would reassure them that they understand the distress, history of unsuccessful treatments, and out-of-control symptoms. They want each patient to feel that they have been listened to and informed, and will receive a renewed sense of confidence in their ability to manage the headache, and live their "best life."

When asked if the Clinic anticipates significant growth or changes during the next few years, the COO/CFO, Konrad Kothmann, replied: "Currently, there are so many exciting things going on in the world of headache medicine. The new CGRP Antibody drugs will be coming to the market within the next few years and will be a game changer. Not only are the clinical results amazing in the early stage trials, but there will also be an increase in funds spent on education and patient awareness which will hopefully bring many silent sufferers out into the open where they will seek treatment. A significant challenge for headache patients in many parts of the world, especially rural areas, is difficulty in obtaining local quality care. Diamond Headache Clinic, in an effort to serve more patients, is currently exploring several options to meet this need. Whether that may be operating satellite clinics around the country, or by participating in telemedicine, we expect to evolve to make care more accessible to individuals who need it."

Dr. Merle Diamond was asked why she decided to practice headache medicine. Her response was: "I was tired of the craziness of the Emergency Department and wanted more patient contact. The gift was that I was not even sure that I would like headache medicine but I did it to join my father in practice. It turned out to be the best thing that ever happened in my medical practice. I love patients, their families, and participating with them in their health journeys. The joy I feel when patients do well is almost so great, it is beyond words."

The entire health care team at the Diamond Headache Clinic adheres to the same principles, centered on listening and remaining open-minded to patients and to treatment opportunities. The Clinic's mission and philosophy are best described in the words of the founder, Seymour Diamond, MD: "This is a place that's always been and always will be about providing a continuum of care. Our patients need us to persevere at every stage of the process – to accurately diagnose their condition; to adjust their treatment; to continue our follow-up; and, to show them an opportunity for life beyond headache." **HW**

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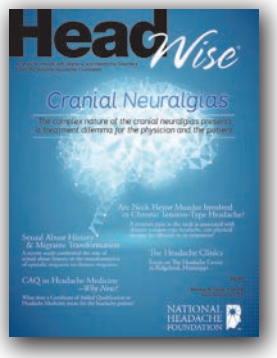

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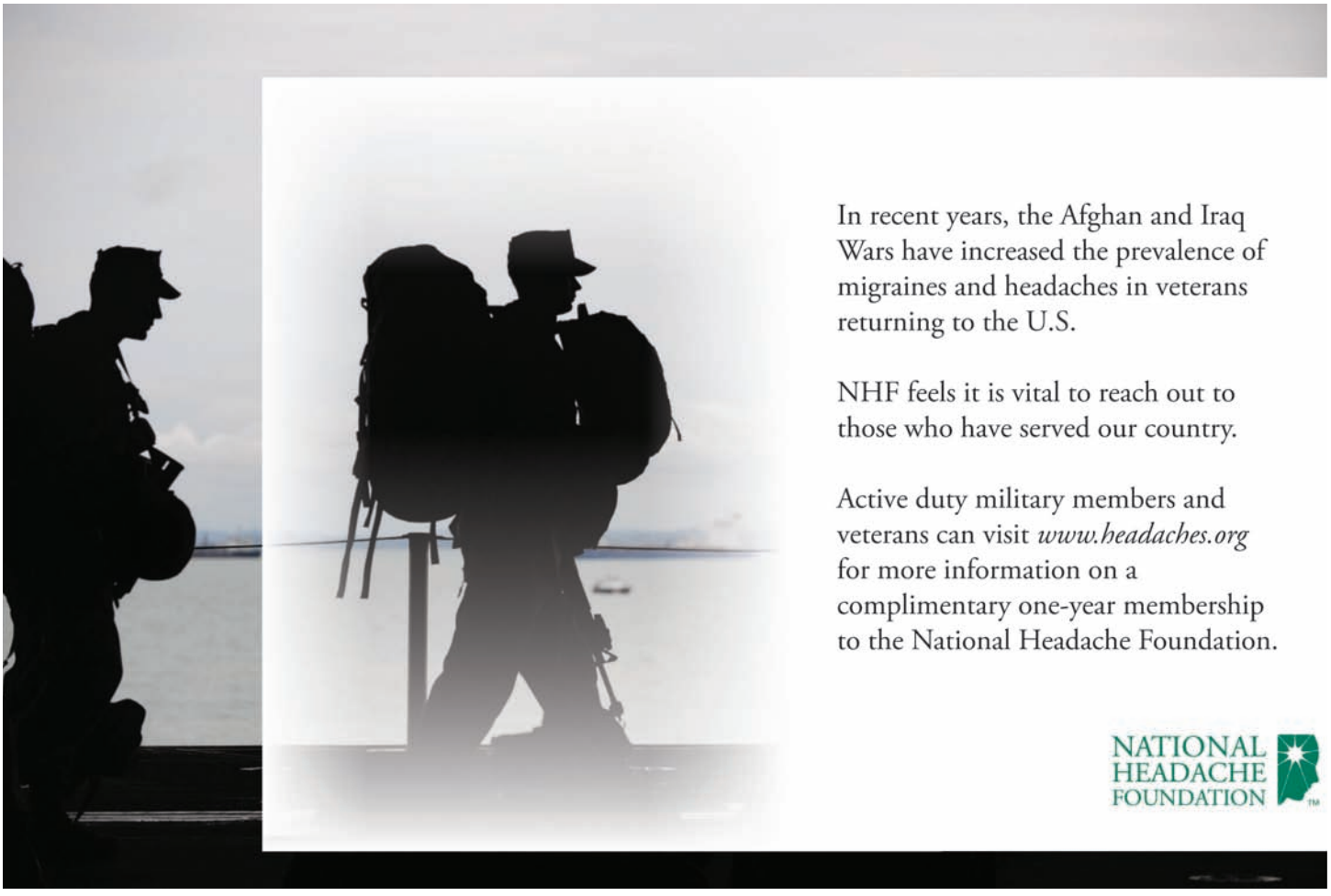

In recent years, the Afghan and Iraq Wars have increased the prevalence of migraines and headaches in veterans returning to the U.S.

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