

HeadWise®

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

CLUSTER HEADACHE

THE MOST SEVERE HEADACHE

Cluster Headache has been described as the most painful type of headache one can endure. Fortunately, it is not very common.

Using a Non-Prescription Therapy for Headache

For those experiencing severe headache and migraine, the search for additional treatment options that may provide fast relief of their pain is continuous.

Legislating Headache

Dr. Larry Charleston, IV, describes his fellowship on Capitol Hill and the need for advocates for headache – physicians and patients.

The Headache at Appomattox

As we celebrate the 150th anniversary of the end of the U.S. Civil War, the impact of migraine on one of the major figures, Ulysses S. Grant, is examined.

Headache Clinics

*Featuring the Michigan Headache Clinic
East Lansing, Michigan*

\$6.99

Volume 4, Issue 3 • 2015
www.headaches.org

NATIONAL
HEADACHE
FOUNDATION



TM

Get **Head** *Wise*[®] at home *Become a member today!*



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 becoming a member of 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 membership: \$20 per year

Professional membership:

Physician (M.D. or D.O.): \$125 per year

Allied health: \$75 per year

With your membership, 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:

In this issue, Doctor George Urban of the Diamond Headache Clinic in Chicago, explores the complexities of cluster headache and its treatment. While reading this article, I thought of my friend and colleague, Robert E. Ryan, Sr., MD, of St. Louis, who passed on March 30, 2015. Bob Ryan was truly a pioneer of headache medicine. He was a founding member of the American Association for the Study of Headache (now the American Headache Society) and helped facilitate the founding of the National Headache Foundation. He also was one of the original editors of the professional journal, *Headache*.



Drs. Seymour Diamond, Marcia Wilkinson, Robert Ryan Sr.
at City Migraine Clinic, London, 1971

Dr. Ryan was a great proponent of histamine desensitization therapy for headaches – a treatment which is still used for chronic cluster headaches at the Diamond Headache Clinic. Bob had completed an otolaryngology (ENT) residency at the Mayo Clinic in Rochester, MN, and was a student of Dr. Bayard T. Horton who published extensively on histamine for headaches. When I first started treating headaches, Bob invited me to the Ryan Headache Clinic in St. Louis to observe his patients receiving histamine therapy. Histamine has never been utilized extensively with the exception of colleagues and students of Bayard Horton, and with those who have had the opportunity to observe its efficacy at the Diamond Headache Clinic or the Ryan Headache Clinic. Despite the publication of articles documenting the success of histamine therapy in recidivist cluster headache patients, the medical profession has long ignored an effective therapy.

Dr. Bob Ryan was known for his devotion to his patients and to the St. Louis Cardinals. His contributions to headache medicine are significant. On behalf of the Board of the National Headache Foundation, I would like to express our condolences to his son, Robert E. Ryan, Jr., MD, a former NHF Board member, and the rest of the Ryan family.

A handwritten signature in cursive script that reads "Seymour Diamond".

Seymour Diamond, M.D.

Chicago, Illinois

NHF Board of Directors

EXECUTIVE CHAIRMAN AND FOUNDER
Seymour Diamond, MD
ASSOCIATE EXECUTIVE CHAIRMAN
Roger K. Cady, MD
PRESIDENT
Arthur H. Elkind, MD
VICE PRESIDENT
Vincent T. Martin, MD
SECRETARY
Margaret E. Azarian, PhD
TREASURER
Chad J. Beste

NHF Board Members

James Beasley
Jan Lewis Brandes, MD

Merle L. Diamond, MD
Joshua Friedman, Esq.
Mark W. Green, MD
Marc D. Lefkowitz
Roger Plummer
Alan B. Rosenberg, MD
Timothy R. Smith, MD, RPh, FACP
Stephen Stern, Esq.

Honorary Board

Donald J. Dalessio, MD
Carol Girard-de-Frain
Philip E. Hixon
Patrick P.A. Humphrey, PhD, DSc
Emily Kaplan Kandel
Paul Kandel
Richard B. Lipton, MD
Edmund Messina, MD

Ian Phillips
A. David Rothner, MD
Gary Ruoff, MD
Oliver Sacks, MD
James M. Staulcup, Esq.
Walter Stewart, PhD, MPH
K. Michael Welch, MB, ChB, FRCP
Janet Zlatoff-Mirsky

Editorial Board

Arthur H. Elkind, MD, Chair
Margaret E. Azarian, PhD
Jan Lewis Brandes, MD
Roger K. Cady, MD
A. David Rothner, MD

Editorial Consultant

Mary A. Franklin



Mission

To cure headache, and end its pain and suffering.

Vision

A world without headache.

HeadWise® ISSN 2167.4280 (2015, Volume 4, Issue 3) is published quarterly by the National Headache Foundation, 820 North Orleans, Suite 411, Chicago, IL 60610. Periodicals postage paid at Carol Stream, IL 60188 and at additional mailing offices.

Postmaster:

Please send address changes to *HeadWise*®, NHF, 820 N. Orleans St., Ste. 411, Chicago, IL 60610

Copyright© 2015, National Headache Foundation (NHF), all rights reserved. No portion of the magazine may be reproduced in whole or in part without the written consent of NHF.

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.

Send Us Your Feedback

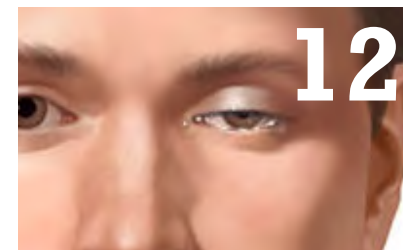
Letters, manuscripts, stories, materials or photographs are welcomed but will not be returned. Submission of letters implies the right to edit and publish all or in part. Submissions may be sent to: mfranklin@headaches.org. Please indicate your name, address and phone number.

Mail: Seymour Diamond, MD
Executive Chairman and Founder
National Headache Foundation
820 North Orleans, Suite 411
Chicago, IL 60610
Email: mfranklin@headaches.org

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

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

FEATURED ARTICLES



Cluster Headache— The Most Severe Headache

Cluster headache is a relatively uncommon headache disorder, but its excruciating pain has earned it the title of “suicide headache.” What are the symptoms of this headache condition, and how is it treated?

Using a Non-Prescription Therapy for Headache

Dissatisfaction with available therapies is a common complaint of those patients experiencing chronic headaches and migraine. The search for alternative therapies is continuous and this article examines the use of a non-prescription, homeopathic nasal spray which was formulated using raw extract of the chili pepper, *capsicum annuum*.



Legislating for Headache

Larry Charleston, IV, MD, FAHS of the University of Michigan Headache and Medicine was awarded the Kenneth M. Viste Jr. Neurology Public Policy Fellowship (NPPF), in 2012. He describes his experience with the 112th Congressional session and how he was able to advocate for headache patients.

The Headache at Appomattox

The surrender at Appomattox Court House, VA, on April 9, 1865 is recognized as the official date of the end of the U.S. Civil War. The meeting between General Robert E. Lee of the Confederacy and General Ulysses S. Grant of the Union has a “migraine” aspect to it.



IN EVERY ISSUE



The Headache Clinics

This issue focuses on The Michigan Headache Center, East Lansing, Michigan, and a conversation with its Director, Edmund Messina, MD.

6 NHF News

Learn what's happening in and around the National Headache Foundation.

9 Reader Mail

You ask, our physician experts answer. Get information from leaders in headache medicine.

30 Headache Diary

Keeping a headache diary can help your doctor help you.

Run for Sheree Flying High

On June 28, 2014, the first annual 5k race, Run for Sheree Flying High, was held on Main Street in Pine Mountain, GA. This event was to honor the memory of long-time NHF member and migraine sufferer, Sheree Shelton. It was organized by her dear friend, Angie Moore. Sheree's husband and parents were in attendance.



Planning for the event took 3 months and was very successful. Over 130 individuals, age 1 to 85 years, participated, and one runner traveled from California for the event. The run stretched 3.1 miles through the town of Pine Mountain, and the runners were escorted by the Pine Mountain police. The Volunteer Fire Department was also on hand. A DJ provided music for the festivities. The entry fee was \$25, and each runner received a racer's bib, t-shirt, and bracelet. Awards were given to the youngest and oldest runners, as well as the top runner in each age group. Through Angie's diligence and enthusiasm, the event raised almost \$6,000 which was donated to the National Headache Foundation. The goal for the 2015 event is to double the participation and donation.



With Angie and Sheree's family, the NHF would like to thank the sponsors of the race:

AmWINS Group, Inc; Longevity Fitness; Coca-Cola; Sebring Custom Carts; Advocare-Gina Boren; ASA Performance; Beres Chiropractic Clinic; Kings Automotive; Markel Insurance Co.; San Marcos; Southern Touch Photography; The Cornett Family; Super Valu; Eli Lawncare; and First Peoples Bank.



If you would like information about the 2015 race, please contact the NHF at info@headaches.org or 1-888-NHF-5552, and we will forward your information to the organizers. **HW**

LUNCH & LEARN

On December 12, 2014, one of our physician members, Marc Sharfman, M.D. presented a lecture to the employees of the City of Winter Park, Florida. Doctor Sharfman focused on diagnosis and treatment of headaches, particularly migraine, and how headaches impact the labor force.

We want to thank Doctor Sharfman for his service, and to the City of Winter Park for their consideration.

We are happy to provide speakers and materials for similar programs. If you or your employer would be interested in a "lunch-time" lecture or a presentation for your "Wellness Program," please contact us at 1-888-5552 or info@headaches.org.

THANK YOU CHAT ROOM MODERATORS

During 2014, the National Headache Foundation continued its outreach to those with headaches as well as their families, through our webinars or "chat rooms." These events allow participants to sign on and communicate with a health care practitioner who is an expert in a certain area of care. During the chat room, participants can direct any questions about the headache topic being covered that evening. The questions are submitted through a moderator, who then organizes and asks the questions live for a better recordable format. The audio Q&A is later placed into podcast format by our staff, and uploaded

to YouTube where anyone can then listen to the event, in perpetuity.

The hosts are invited to lead these 1-to-2 hour Q&A sessions based on their expertise in areas such as chronic migraine, post-concussion headache, cluster headache, pediatric headache, tension-type headache, etc. These sessions provide an excellent resource for the headache community. Typically, we host two chat rooms per month and four are presented during National Migraine and Headache Awareness Month. Not only are these sessions reaching a large audience, through day-of participation and thereafter podcast viewing, but we are reaching an under served audience who sometimes lack traditional access to information and advice.

We would like to thank those health care practitioners who led chatrooms during 2014:

Shannon Babineau, MD
Mount Sinai Medical Center
New York, NY

Jan Lewis Brandes, MD
Nashville Neuroscience Group
Nashville, TN

Susan Broner, MD
Manhattan Headache Center
New York, NY

Larry Charleston, IV, MD
University of Michigan Health Center
Ann Arbor, MI

John Kent Dexter, MD
Headache Center
Springfield, MO

Merle L. Diamond, MD
Diamond Headache Clinic
Chicago, IL

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

Howard Jacobs, MD
Nationwide Children's Hospital
Columbus, OH

Robert Kaniecki, MD
University of Pittsburgh Medical Center; Pittsburgh, PA

Edmund Messina, MD
Michigan Headache Clinic
East Lansing, MI

George Nissan, DO
Baylor Headache Center
Dallas, TX

M. Duren Ready, MD
Baylor, Scott
White; Temple, TX

Christine Treppendahl, NP
Headache Center
Ridgeland, MS

Richard Wenzel, Pharm. D.
Presence Healthcare
Saint Joseph Hospital
Chicago, IL

Deborah Zajac, RN, BSN
Cleveland Clinic
Cleveland, OH

Webinars are available for viewing on our website www.headaches.org

Special Lectureships

On Sunday, February 15, 2015, the National Headache Foundation presented two lectureships at the course, *The 28th Annual Practicing Physician's Approach to the Difficult Headache Patient*. The course is sponsored by the Diamond Headache Clinic Research and Educational Foundation, and was held this year at the Balboa Bay Resort, Newport Beach, CA.

Alexander Feoktistov, MD, PhD, Director of Research at the Diamond Headache Clinic, Chicago, was awarded the *National Headache Foundation Lectureship*. The National Headache Foundation Lectureship is presented to an up-and-coming physician or scientist who has demonstrated interest in headache medicine. Dr. Feoktistov's presentation was "Interventional Management of Intractable Headache." Dr. Feoktistov received his MD with honors at Moscow Medical Academy, Moscow, Russia, where he also completed a residency in neurology. In 2002, he received a PhD in neurology at the Department of Neurology at the Moscow Medical Academy, 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, Dr. Feoktistov received a Presidential award for a 1-year fellowship of his choice, and he was approved to study headache at the Diamond Headache Clinic in Chicago, working directly with Seymour Diamond, MD and the other physicians, where he remained until 2007, conducting research and assisting in clinical duties. In 2007, Dr. 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. He has received Certification in Headache Medicine from the United Council of Neurological Subspecialties. Dr. Feoktistov returned to the Diamond Headache Clinic in 2011 as a staff physician.

Lars Bendtsen, MD, PhD, Dr Med Sci was the recipient of the 2015 *Seymour Diamond, MD Lectureship*. The lectureship was established in 2005 to honor the Executive Chairman and Founder of the National Headache Foundation – Seymour Diamond, MD. The award recognizes the most significant paper in headache medicine which was published during the past year.

Dr. Bendtsen's lecture, "Disability, Anxiety, and Depression Associated With Medication-Overuse Headache Can Be Considerably Reduced by Detoxification and

Prophylactic Treatment," is based on the article, "Disability, Anxiety, and Depression Associated With Medication-Overuse Headache Can Be Considerably Reduced by Detoxification and Prophylactic Treatment. Results from a Multicentre, Multinational Study (COMOESTAS Project)," which appeared in the journal, *Cephalalgia* 2014; 34:426-433. His coauthors were: SB Munksgaard, C Tassorelli, G Nappi, Z Katsarava, M Lainez, JA Leston, R Fadic, S Spadafora, A Stoppini, R Jensen, and the COMOESTAS Consortium.

Dr. Bendtsen is Associate Professor at the Department of Neurology and Danish Headache Center, Glostrup Hospital, University of Copenhagen. Currently, Dr. Bendtsen is co-director of The Danish Headache Centre. He received his PhD and Dr Med Sci degrees at the University of Copenhagen. He has actively been involved in headache research since 1991 and has authored over 130 papers and book chapters on headache topics. Dr. Bendtsen is the recipient of the 1997 GlaxoWellcome Research Prize, 2000 Danish Headache Society Prize for scientific achievements, and 2001 Danish Neurological Society's Roche Prize for scientific achievements in neurology. He is past President of the Danish Headache Society. **HW**



Drs. Roger Cady and Lars Bendtsen



Drs. Roger Cady and Alexander Feoktistov

Tired of searching the internet for answers?

It's time to learn from those in the know. In every issue of HeadWise®, our experts respond to reader-submitted questions about migraine and headache disorders.

Music – A Headache Trigger?

I was a patient with the Diamond Headache Clinic and hospitalized in August, 1992. It seems that certain types of music, especially loud, manufactured/synthesizer-type music triggers my migraine headaches. I was wondering if any research has been done to determine the correlation of certain sounds or music to the onset of migraine headaches. An example of this music can be heard in some steak house-type restaurants. Sometimes, my headaches are triggered by being placed "on hold" during a business phone call. I cannot listen to music using earplugs. "Easy listening" music, live piano music, and/or Laurence Welk-type music do not give me headaches. Shop vacuums and power scrubbers used in large stores also trigger my migraine headaches. Sometimes, it is almost impossible to avoid this type of music/noise. I have non-classical, atypical migraine headaches. –Ann M.

"Migraine people are sensitive to very specific triggers, such as smells, light or sound; usually the intensity makes a stimulus more of a trigger. Distinct sound patterns, as described, can be very specific to the individual. It may be helpful to use earplugs or to listen to less offensive music with earbuds when in uncontrolled environments."

Edmund Messina, MD
East Lansing, MI

Treating Menstrual Headaches

I have been dealing with migraines that I inherited from my mother (who got them from her mother) for almost 20 years now. I lose a week of my life every month when I get my menstrual cycle. I've been looking for a way to prevent this without the use of birth control pills because they only seem to aggravate my condition even more. When I was pregnant with my son, the second half of my pregnancy was incredible-no headaches, never felt better. I should also add that once my mother and grandmother went through menopause, their headaches disappeared. Is there anything that you could recommend? I seem to do pretty well the rest of the month due to some dietary changes I've made over the past year. –Erin

"The most common way to prevent these headaches is a strategy called "mini prophylaxis," which means that you take a medication preventatively for 4 to 5 days before and during your menstrual period in order to prevent or reduce the severity of these headaches. One takes medications starting 1 to 2 days prior to the onset of the migraine and then stops the medication 4 to 5 days later. These medications are generally given 2 to 3 times per day depending on the medication. You take them whether you have a headache or not for that 4 to 5 day time period. One group of medications that can be used is the triptans such as naratriptan, frovatriptan, zolmitriptan, and sumatriptan. Another group is the nonsteroidal anti-inflammatories, such as naproxen. Whether this treatment is appropriate for you should be determined by your physician."

Vincent Martin, MD
Cincinnati, OH

reader mail

You ask. Our headache experts answer.

Transformed Migraine

I am having trouble keeping my migraine headaches under control. I have been a lifelong migraineur. I am 51 years old (my migraines began when I was age 6), and I am the patient of an excellent neurologist, who, fortunately for me, also happens to be a headache specialist.

Three years ago, my migraines changed: they became more frequent, more painful, and more difficult to manage. My neurologist diagnosed this new direction in head pain as a "transformed migraine." Initially, one daily 25 mg. dose of amitriptyline HCL blissfully relieved all of my transformed migraine difficulties. Unfortunately, over the past three years, my transformed migraines have gradually outmaneuvered every attempt to keep them under control. I have steadily progressed from 1 to 2 to 3 amitriptyline HCL tablets per day. When my headaches began to break through with greater frequency and intensity, my neurologist also prescribed two daily 80 mg. doses of propranolol.

During September, 2014, my migraines once again became very assertive. The preventative medicines (the daily 3x25mg. amitriptyline, and 2x80mg propranolol) that I am taking became progressively less effective: I began having weekly and then daily breakthrough headaches. In December, 2014, my neurologist prescribed a treatment of Botox in an attempt to alleviate my transformed migraine symptoms. The Botox seemed to blunt the breakthrough migraines for a short while, but, between December, 2014, and January, 17, 2015. I have begun to experience breakthrough headaches on practically a daily basis.

I am using all of the experience that I have accumulated over a lifetime to keep my headache pain under control (avoiding all known triggers: alcohol, chocolate, weariness, stress, but I seem to be steadily losing ground in my effort to keep my migraines under control. I fear that, in the not too distant future, I will wake up one morning with an incapacitating headache and be unable to reduce, much less eliminate, the nauseating pain. That is

not an event that I look forward to, and I would like to do everything in my power to bring my migraines under control before that day arrives. – Tim

"Many patients with migraine find they enter cycles of increased headache activity. In the general population, the chance of "transforming" from episodic migraine (<15 days per month) to chronic migraine (15 or more days per month) is approximately 3% each year. Sometimes, such transformation is triggered by an external event, such as a major life stressor, or by an internal issue, such as hormonal changes with menopause. Many times, the transition to frequent headache is spontaneous or merely follows a particularly severe headache. At the age of 51, hormonal changes are quite possibly the inciting event. Once in motion, chronic migraine is then frequently perpetuated by the overuse of pain relievers or other medications aimed at treating the migraine symptoms. Also, patients tend to change sleep, meal, hydration, or exercise patterns because of the frequent headaches. Either the overused pain relievers or the altered lifestyle program could result in failure of preventive medications such as amitriptyline or propranolol. Finally, other neurological or medical conditions could aggravate migraine headaches, and we usually check a brain MRI while also probing for hormonal, mood, anxiety, or sleep disturbances. Typically with chronic migraine, we recommend resumption of strictly regulated sleep, meal, hydration, and exercise patterns. We adjust preventive medications as necessary. Topiramate is particularly helpful for chronic migraine, and the Botox might eventually help as well. Drugs for the symptoms of migraine should be limited to 10 days per month. Most patients will eventually transition back to episodic migraine within several months, but some conditions are more resistant. Some patients may require steroid courses or even hospitalization to break the most active and severe cycles. It sounds like you are in good hands, so best of luck."

Robert Kaniecki, MD
Pittsburgh, PA

Take control of your migraine...



before your migraine takes control of you

Clinically proven to relieve:

- ✓ Migraine pain
- ✓ Nausea
- ✓ Sensitivity to light & sound



Acknowledges **Advil® Migraine** as an effective treatment for migraine headaches

CLUSTER HEADACHE

THE MOST SEVERE HEADACHE

GEORGE URBAN, MD
CO-DIRECTOR DIAMOND HEADACHE CLINIC
DIAMOND INPATIENT HEADACHE UNIT
PRESENCE-SAINT JOSEPH HOSPITAL
CHICAGO, ILLINOIS



The headache has been described as the most severe form of pain a human can endure.

Cluster Headache has been described as the most painful type of headache one can endure. Fortunately, it is not very common. Cluster headache is one of the primary headaches that is not caused by other disorders. Although this headache was recognized for at least a century, the term, Cluster Headache, was coined relatively recently, in 1952 by Doctor E. Charles Kunkle and his colleagues. Prior to this title, cluster headache was known under a variety of names including: Migrainous neuralgia; Horton's headache; Harris-Horton's disease; Histaminic Cephalgia; Ciliary neuralgia; and, Erythromelalgia of the head.

In 1745, Gerhard van Swieten presented a case of a "healthy, robust man of middle age [who] was suffering from troublesome pain which came on every day at the same hour at the same spot above the orbit of left eye..." This description fulfills the current diagnostic criteria of Cluster Headache.

HOW COMMON IS THIS DISORDER?

Cluster headache is a relatively uncommon headache disorder. The prevalence is about 10 per 100,000 in male patients, which is about 19 to 25 times less than the prevalence of migraine headache in men. Most cluster headache sufferers are males, with the gender ratio varying

from 3.5:1 to 6.7:1 in favor of males. No racial, ethnic, or genetic factor has been documented. Cluster headache can begin at any age, but the average mean age of onset is during the late 20s and early 30s.

WHAT IS CHARACTERISTIC FOR THIS CONDITION?

The acute attack of cluster headache occurs suddenly, without any warning. It peaks in intensity within 10 to 15 minutes, and lasts usually from 40 to 90 minutes. The pain is excruciating and described most commonly as boring, burning, piercing, sharp, knife-like, or "a hot poker in the eye." A soreness or lingering dull pain may persist for hours after the main attack. The pain is strictly one-sided, and occurs on the same side at the same location during a cycle. It may change sides in the next cycle. The typical location is at the temple, above the eye, or behind the eye. The area of pain is small, and often the patient can point to the pain's location with the tip of a finger. The headache has been described as the most severe form of pain a human can endure. It is not unusual for women who experience cluster headache to describe the pain as worse than the pain associated with labor and delivery. The cluster headache has been nicknamed by some sufferers as the "killer" or "suicide" headache.

The headache episodes occur in peculiar periodicity. The term "cluster" derives from attacks occurring repeatedly within a relatively limited time span, called the period, cycle, bout, or cluster. On average, a cluster cycle lasts 6 to 12 weeks. Many patients experience one cycle every year, usually at the same time each year. Typically, cluster headaches manifest during spring or autumn, a phenomenon called circannual rhythm. During the cycle, the attacks appear daily, usually once a day at the same time—circadian periodicity. In between the cycles, the patient is completely headache-free.

More than 50 percent of cluster patients report that the attacks occur at night, most commonly about 2 to 3 hours after falling asleep. Many patients will have their attacks at a predictable rate. The number of attacks usually do not exceed three in 24 hours. However, some patients with chronic cluster headache may experience more than five attacks a day.

The typical symptoms, which must be present for the correct diagnosis, are autonomic responses. These responses include eye tearing and redness, runny nose and congestion, sweating of half of the face, and sometimes a droopy eyelid. These symptoms occur on the same side of the headache, and continue throughout the entire attack. Nasal congestion and runny nose may lead to an

incorrect diagnosis of sinus headache or sinus infection. Some patients may also experience nausea, vertigo, neck muscle stiffness or tenderness, and possibly fluctuations in the heart rate and blood pressure.

Another distinguishing feature of cluster headache is the behavior of patients during the attacks. As opposed to migraine sufferers, cluster patients cannot remain still. They are agitated, moving around, pacing, rock back and forth, moan, and rub the affected temple with their thumb, knuckles, or fist. Some patients would even bang their head against the wall in a futile attempt to alleviate the pain. These patients may become violent and self-destructive, and sometimes suicidal.

During the attacks, sufferers apply ice or cold objects on their head, preferring a cold environment, and may venture outside during the winter without appropriate warm clothing. The appearance and behavior of these patients, during the cluster attacks, resembles a manic phase. During remission periods, the patient will demonstrate a normal psychological profile.

WHAT IS CAUSING THE CLUSTER HEADACHE?

There is a difference between the trigger factors and the cause. During the cluster cycle, acute attacks can



be induced by alcohol, nitroglycerine, or histamine. Many patients voluntarily abstain from drinking alcohol during the cycle until they are in remission when they can consume alcohol without provoking the attack. Low oxygen saturation, especially as a result of sleep apnea or from being in higher altitudes, may trigger a cluster attack during the cycle. In contrast to migraine, food, hormonal changes, and weather changes do not play a major role as cluster attack triggers.

The cause and the mechanism of cluster headache are very complex and not well understood. All scanning, including head CT and brain MRI, are always negative and do not elucidate the cause. However, studies using MRA (an MRI of the intracranial blood vessels) have revealed dilatation – swelling of a short segment of artery behind the eye on the same side of pain. Furthermore, PET scans that measure important bodily functions, such as blood flow, oxygen use, and sugar (glucose) metabolism, demonstrated activation of a part of the hypothalamus on the same side of pain. The hypothalamus is a very important part of the brain, just above the brainstem, that controls the endocrine system, hormonal cycles, autonomic system, and “biological clock.” That result indicates that the hypothalamus is a generator or modulator of the mechanism of cluster headache. The autonomic symptoms, hormonal fluctuation, and clockwise periodicity are influenced by the hypothalamus and its dysfunctional biological clock (pacemaker). The pain is generated by activation of the trigeminal neurovascular system.

HOW TO TREAT THIS DISEASE?

The diagnosis is fairly straightforward. The clinical picture of cluster headache is so characteristic that it should not be misdiagnosed for some other headache or disorder. If the patient has only recently experienced the initial cycle of cluster headache, an MRI of the brain is recommended to rule out secondary headache due to a brain tumor, aneurysm, or other intracranial process. No other testing is necessary.

The treatment of cluster is twofold. Its aim is to abort the acute headache attack as well as shorten and stop the cluster cycle. During remission periods, the patient does not need to continue any treatment. Therapy should be initiated at the very beginning of a new cycle. The most effective and safest therapeutic modality is pure 100 percent oxygen, delivered via mask at the high flow rate of 10 to 15L per minute. Usually, the attack is aborted within 5 to 10 minutes with oxygen therapy. Many patients will use a small oxygen tank at home as well as at work, so that it can be used whenever an attack commences.

Because of the brevity of attacks (lasting less than one hour), no oral medication, including narcotic analgesics will have time to be effective. The triptans in either injectable or nasal spray formulations are effective for a brief period and in aborting the attacks. The triptans include sumatriptan and zolmotriptan. However, their use is contraindicated in patients with uncontrolled high blood pressure or cardiovascular disease. Other options that may be effective are injectable dihydroergotamine or the nonsteroidal anti-inflammatory agents (NSAIDs).

“Histamine desensitization treatment

has been done at a number of specialty clinics, such as the Diamond Headache Clinic in Chicago, for more than 40 years...

The treatment is well-tolerated

and about 70 percent of patients with chronic cluster headache who have not responded to previous therapy do benefit from this treatment modality.”

Preventative treatment should be initiated as soon as the new cycle starts. Steroid burst and verapamil are drugs of choice. Other drugs are added if the attacks are not alleviated, including valproic acid, doxepin, indomethacin, topiramate, gabapentin, and triptans with a longer duration of effects. Lithium may be quite effective particularly in the treatment of the chronic form of cluster headache. All medications may cause adverse reactions and the patient needs to be cautioned to avoid exceeding the maximum individual or daily dose when attempting to stop the terrible pain.

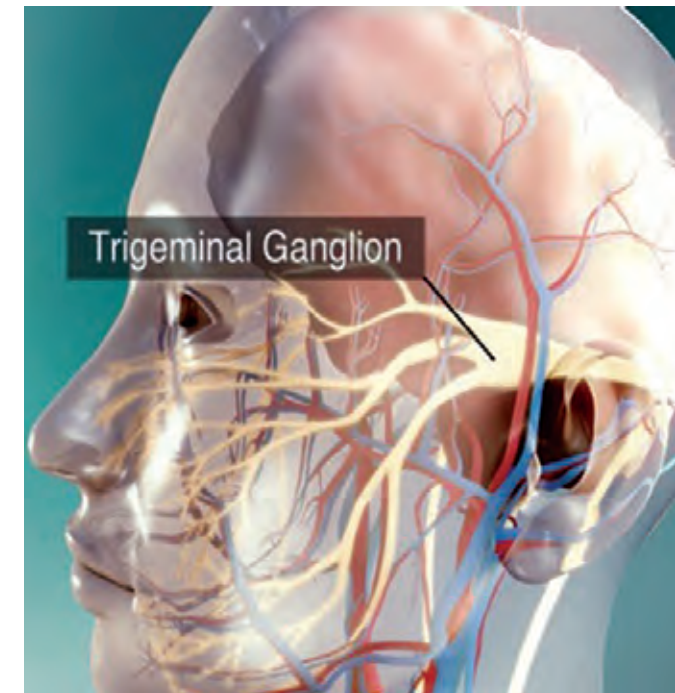
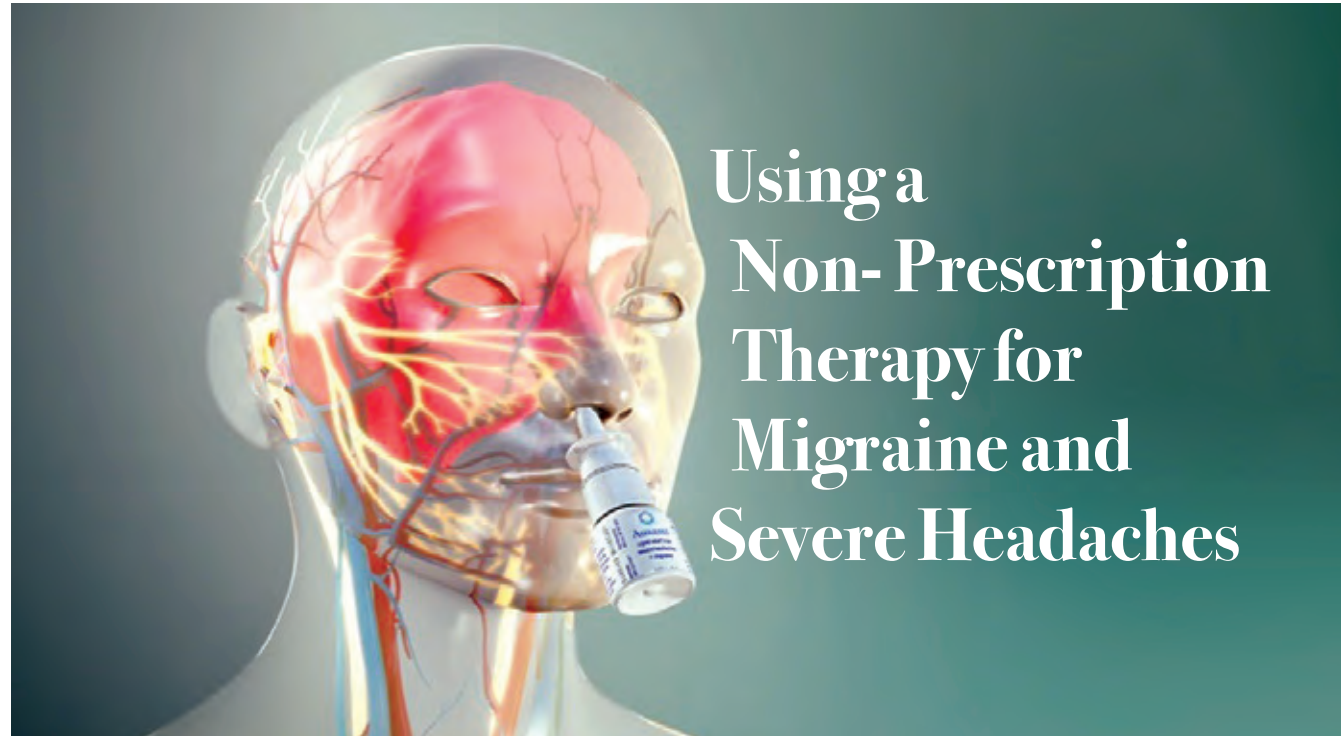
Some nerve blocks, mainly the occipital and sphenopalatine, may also be effective for a short time. Treatment with botulinum toxin has not been proven to be beneficial in cluster headache. Surgical procedures, including cutting or chemically destroying a nerve pathway or a ganglion (cluster of nerve cells), are seldom performed. These interventions are only performed in select patients who experience continuous one-sided headache and who are not depressed. These surgical procedures have a high rate of failure or complications.

Chronic cluster is a complicated form of cluster headache. The attacks occur daily, sometimes multiples times a day or a few times a week. There is no respite nor remission, and the attacks will affect the patient day after day, week after week, and month after month. These headaches do

not respond to standard treatment or the combination of different medications. Lithium has been used successfully, although some patients are refractory to recommended therapy. Histamine desensitization treatment has been done at a number of specialty clinics, such as the Diamond Headache Clinic in Chicago, for more than 40 years... the histamine is infused slowly over several days, while the patient receives other preventative and abortive therapy, and is usually undertaken in a dedicated hospital facility such as the Diamond Inpatient Headache Unit at Saint Joseph Hospital in Chicago. The treatment is well-tolerated and about 70 percent of patients with chronic cluster headache who have not responded to previous therapy do benefit from this treatment modality. The cycle is stopped and the patient experiences the remission phase for several months and possibly years. When the next cycle starts and standard therapy is initiated, patients have a much improved response.

Cluster headache is a neurological disorder with excruciating pain, that sometimes leads to suicidal thinking. This type of headache is easy to diagnose, but also easy to mislabel as a “sinus headache.” It is of utmost importance for patients to seek immediate medical attention from a neurologist or a specialized headache clinic in order to alleviate the cluster attacks and stop the cycle as early as possible. **HW**

Using a Non-Prescription Therapy for Migraine and Severe Headaches



“It’s vital that we are able to offer new options like Ausanil® to patients who are still searching for pain relief and are continuously incapacitated in their daily life.”

Currently, an estimated 12 million or more severe headache and migraine patients are dissatisfied with therapies available to them. They continuously search for additional treatment options that may provide fast relief of their pain without the limitations of adverse drug interactions, systemic side effects, or for some individuals – accessibility and affordability.

For several decades, research has demonstrated that nasal administration of extracts from the oleoresin capsicum plant (chili pepper plant), such as capsaicin, have been effective in treating migraine and cluster headaches. A non-prescription, homeopathic nasal spray is now available which was specifically formulated using raw extract of the chili pepper, *capsicum annuum*. It is observed to be a viable treatment option for many patients in search of rapid pain relief from severe headaches, including migraine, cluster, and tension-type headaches.

Acting locally in the nose, this non-prescription spray is thought to work by the calcium-mediated desensitization

of the trigeminal nerve and resultant depletion of calcitonin gene-related peptides (CGRP), which have been identified as the “pain” neurotransmitters responsible for migraine pain. Reduction in the release of CGRP leads to a decrease in the swelling and inflammation of blood vessels that surround the brain, thus resulting in pain relief.

Specifically targeting the source of headache pain, the spray is intended to provide rapid relief. According to a real-world patient analysis presented at the 2014 American Academy of Neurology (AAN) Annual Meeting, nearly 83 percent of patients reported onset of relief within 1 to 3 minutes of use with the treatment.

Attempting to address one of the biggest common challenges headache sufferers confront, developers of the treatment, Ausanil®, worked to ensure that only small quantities of the nasal spray are needed for rapid pain relief. This allows patients to use it in addition to other medications, including triptans and over-the-counter pain relievers, without adverse drug interactions. Additionally,

as a nasal spray, Ausanil® specifically works locally in the nose, does not cause stomach or liver issues, and is safe to use for patients with kidney or cardiovascular issues.

“When you see a patient time and time again and nothing seems to give them relief or they’re limited on treatments due to drug-drug interactions or notable side effects, it can be a very frustrating and heartbreaking process,” said Maria Alexianu, MD, PhD of the Atlantic Neuroscience Institute at Overlook Medical Center in Summit, NJ. “It’s vital that we are able to offer new options like Ausanil® to patients who are still searching for pain relief and are continuously incapacitated in their daily life.”

Although free of systemic side effects, when used correctly, non-prescription Ausanil® will sting upon use. This stinging sensation is part of the mechanism of action and is an indication that the treatment is working. Results from the AAN patient analysis found that all patients experienced the local adverse event of the nasal sting, which

lasted between 2 to 10 minutes. However, the majority of patients noted that the sting would not dissuade them from using the medication again for pain relief.

The manufacturers of Ausanil® developed instructions for first time users:

- Only use Ausanil® in the nostril of the same side you are experiencing pain
- Before using, prime the spray 1 to 2 times – away from your face
- When using Ausanil®, aim the spray towards the outer part of your nasal cavity, not towards your nasal septum
- DO NOT inhale Ausanil® upon use
- After a minute of use, blow your nose

Non-prescription Ausanil® is currently available for purchase online at Ausanil.com and at select pharmacies throughout the U.S. Each bottle retails for \$34.95 per bottle and includes approximately 50 doses per bottle. **HW**

Contributors: Reena Patel & Mary Franklin

Photo credit: Franz Eugen Köhler, Köhler’s Medizinal-Pflanzen

LEGISLATING FOR HEADACHE

Larry Charleston, IV, MD, FAHS
Headache and Medicine
Assistant Professor
Department of Neurology
University of Michigan
Ann Arbor, Michigan

Quality measurements, prevention of chronic diseases, patient-centered homes, small business tax credit, reporting of health care insurance, hospice reform, limiting and elimination of physician-owned hospitals, health care exchanges, health insurance mandates, accountable care organizations, annual fee on health insurance providers, excise tax on indoor tanning services, and an estimated \$570 billion dollar tax increase on Americans by 2019. What do all of these have in common? POLITICS!

Essentially, the topics stated above are included in what was called H.R. 3590 (House Resolution 3590), otherwise known as the Patient Protection and Affordable Care Act (PPACA), and frequently described as ObamaCare. Whether you agree or disagree with PPACA is not the focus of this article. However, the question and statement above helps to support the idea that politics play a major role in the administration and regulation of health care services and delivery. Political decisions have a phenomenal impact on the practice of medicine, health insurance, and the payment of medical services. Patients need competent providers who, in addition to providing high quality patient care, will advocate for change when they recognize injustice in clinical practice. As the sixth President of the United States, John Quincy Adams, once said, “Duty is ours, results are

God’s.” Because, I believe in that statement and to advocacy within the political process, I decided to obtain “hands-on” experience within the political process as a Congressional Legislative Fellow.

After completing a neurology residency at Baylor College of Medicine, I finished a one-year fellowship in the management of headache and facial pain disorders at the Jefferson Headache Center in Philadelphia. My legislative fellowship was spent during the first session of the 112th Congress in Washington, DC. This opportunity was awarded through the Kenneth M. Viste Jr. Neurology Public Policy Fellowship (NPPF) that is provided by the American Academy of Neurology Professional Association (AANPA), which includes specifically the American Academy of Neurology (AAN), the Child Neurology Society (CNS), and the American Neurological Association (ANA). The NPPF was completed in partnership with the American Academy for the Advancement of Sciences (AAAS) Science and Technology Policy Fellowship program, which was started in 1973 in an effort to provide education and outreach experiences for scientists and engineers while simultaneously providing scientific and technical expertise to policy-makers.

I was oriented within the AAAS Science and Technology Policy Fellowship Program which provided opportunities for professional

development, education, and networking through the AAAS. The AAAS served as a significant and valuable resource during my fellowship.

During my year at Congress, I interviewed with several offices and committees within the U.S. House of Representatives (HOR) and Senate. The office of Representative Wally Herger[®] – California) office and the House of Representatives Ways and Means (WM) Subcommittee on Health, chaired by Congressman Herger, (*The current chair of the House Ways and Means Committee is Rep. Paul Ryan [R-Wisconsin]*), were ideal for my experience, due to a great fit for me based on a variety of factors, including my background, their needs, our values, etc. The House Committee on Ways and Means is the oldest committee of the United States Congress and is the chief tax-writing committee in the HOR. The WM Committee exercises jurisdiction of revenue related to Medicare and the Social Security system. To better understand the WM Committee, please visit the website, www.waysandmeans.house.gov/About/History.htm.

Prior to my fellowship, I participated in several grassroots and advocacy groups as they relate to the fields of headache and neurology. However, it is important to note that this fellowship was not a ‘lobbyist’ position. In fact, my role was similar to that of a staff member. I should note that within Congress, the word “staff” encompasses “personal,” “committee,” and “subcommittee” staff. Personal staff work within the Member’s district, state, and District of Columbia offices. During the 110th Congress, more than 14,000 individuals worked as staff. Committee and subcommittee staff are associated with a particular committee within Congress.

My main area of concentration or what we called “portfolio” on the Hill (“Hill” refers to Capitol Hill) included sustainable health care solutions,

articulation, reform, and implementation. The goals I established for my fellowship are listed in the Table:

Dr. Charleston’s Goals for Legislative Fellowship – Team Herger

- Assist Team Herger in reaching their health care policy goals with excellence for the 112th Congress.
- Understand the current physician payment formula, strengths, weaknesses, and proposed alternatives.
- Understand Medicare hospital payment and ambulatory center formulas.
- Effectively and strategically communicate with health provider, insurance, hospital, and industry organizations.
- Relate real life health care provider and patient experiences to legislative ideas.
- Help introduce a Medicare Reform Bill.
- Introduce a Physician Payment Reform Bill.
- Understand tax code involving health care issues.
- Provide assistance to Ways and Means Subcommittee on Health.
- Effectively network with legislators, staff, and health care authorities.
- Enjoy this congressional fellowship to the max!

UNDERSTAND HOW CONGRESS WORKS

Throughout the year, I reviewed books, legislation, Congressional Research Service reports, Medicare Payment Advisory Committee reports, proposals, columns, etc. It was important to understand the culture of not only my office and subcommittee, but of Congress, the federal government, and Washington D.C. As an active member of Team Herger, I staffed meetings, participated in speech writing, updated Rep. Herger on current key

©“US Capitol West Side” by Martin Falbisoner

**“I WOULD ENCOURAGE
HEALTH CARE PROVIDERS
TO STRETCH BEYOND THE BALLOT
AND BECOME PART OF THE PROCESS”**

health care policy issues, attended several national health care policy forums and alliance for health care reform discussions, and provided medical insight and prior experiences to many health care issues raised by constituents and organizations. In addition, I discussed pertinent issues with the Medicare Payment Advisory Committee, helped formulate questions for the WM Subcommittee Hearings, and assisted in the drafts of legislation. I worked most closely with Rep. Herger’s Senior Policy Advisor. Although the majority of my time was focused on current health care policy issues and Medicare reform, I remained current with other important political issues, especially within the House’s Ways and Means Committee.

During the second year of the 112th Congress, Rep. Herger introduced the “Save and Strengthen Medicare Act of 2012” that included five principles of reform, each with a history of bipartisan support, and based on the principle that cost savings should be driven by physicians and patients.

I encourage physicians and other health care providers to become involved in the political process. Although voting is a privilege that significantly impacts political decisions and should be exercised, I would encourage health care providers to stretch beyond the ballot and become part of the process. However, this involvement should not be limited to providers. Frequently, health care providers try to become the voice of their patients and relate their stories on Capitol Hill. Patients, however, would serve as better and more sympathetic storytellers.

Therefore, I encourage patients to get involved. You are important and your voice does count and will make a difference. Unfortunately, there is a stigma associated with individuals with headaches, especially migraine. The foundations of our government were established more than 200 years ago, and continue to allow us to be influential in political decisions.

The Alliance for Headache Disorders Advocacy (AHDA) is an organization comprised of physicians,

patients, researchers, families, and other individuals who are concerned about the impact of headache on patients, their families, and the public in general. The AHDA offers opportunities of advocacy to help improve the lives of patients with headache disorders and the profession of headache medicine. The National Headache Foundation is a member organization, which serves as a great resource for those who would like to become more involved in advocacy for patients with headache disorders and the profession of headache medicine. Each year, the National Headache Foundation and other advocacy groups for headache, participate in “Headache on the Hill.” These groups send representatives to meet with various congressional offices in hopes to garner support for research funds for headache issues and raise awareness among legislators.

Overall, the legislative fellowship was very gratifying, enabling me to gain some legislative insight in a brief time. I was fortunate to be include in discussions on important health policy issues which were very helpful and extremely instrumental in creating a rewarding fellowship experience for me, becoming more knowledgeable and/or involved in health care policy especially as it relates to headache medicine.

Headache medicine is a medical speciality that often requires the effort of a team. I encourage all of us to become more informed and examine health care policy-related legislation (actual and proposed) as well as proposed rules through direct, unfiltered sources. Together, we can help foster positive changes that can improve the health of our nation and affect generations to come. **HW**

SUGGESTED READING

- Koempel, ML, Schneider, J. Congressional Deskbook, *The Practical and Comprehensive Guide to Congress*. 5th Ed. The Capitol.Net Inc. 2007.
- http://allianceforheadacheadvocacy.org/who_is.htm
- http://fellowships.aaas.org/01_About/01_History.shtml
- <http://waysandmeans.house.gov/About/History.htm>

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.



JUNE
IS NATIONAL
MIGRAINE AND HEADACHE
AWARENESS MONTH



IMPORTANT SAFETY INFORMATION (Continued)

Do not take BOTOX® (onabotulinumtoxinA) 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. These reactions include itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Tell your doctor or get medical help right away if you experience any such symptoms; further injection of BOTOX® should be discontinued.

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

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

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

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

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

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

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

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



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

BOTOX® is the first and only preventive treatment proven to reduce headache days every month.

BOTOX® is the only FDA-approved, preventive treatment that is injected by a doctor every 3 months for people with Chronic Migraine. BOTOX® prevents up to 9 headache days a month, versus up to 7 days for placebo. BOTOX® is not approved for adults with migraine who have 14 or fewer headache days a month.

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. Call your doctor or get medical help right away if you have any of these problems any time (hours to weeks) after injection of BOTOX®:

- **Problems swallowing, speaking, or breathing,** due to weakening of associated muscles, can be severe and result in loss of life. You are at the highest risk if these problems are pre-existing before injection. Swallowing problems may last for several months.

- **Spread of toxin effects.** The effect of botulinum toxin may affect areas away from the injection site and cause serious symptoms including: loss of strength and all-over muscle weakness, double vision, blurred vision and drooping eyelids, hoarseness or change or loss of voice (dysphonia), trouble saying words clearly (dysarthria), loss of bladder control, trouble breathing, trouble swallowing. **If this happens, do not drive a car, operate machinery, or do other dangerous activities.**

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

Please see additional Important Safety Information on adjacent page.

FOR ADULTS WITH CHRONIC MIGRAINE



Find a headache specialist near you at
BotoxChronicMigraine.com

MEDICATION GUIDE

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

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

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

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

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

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

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

• People with certain breathing problems may need to use muscles in their neck to help them breathe. These people may be at greater risk for serious breathing problems with **BOTOX** or **BOTOX Cosmetic**.

• Swallowing problems may last for several months. People who cannot swallow well may need a feeding tube to receive food and water. If swallowing problems are severe, food or liquids may go into your lungs. People who already have swallowing or breathing problems before receiving **BOTOX** or **BOTOX Cosmetic** have the highest risk of getting these problems.

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

- loss of strength and muscle weakness all over the body

- double vision
- blurred vision and drooping eyelids
- hoarseness or change or loss of voice (dysphonia)
- trouble saying words clearly (dysarthria)
- loss of bladder control
- trouble breathing
- trouble swallowing

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

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

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

What are BOTOX and BOTOX Cosmetic?

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

- to treat overactive bladder symptoms such as a strong need to urinate with leaking or wetting accidents (urge urinary incontinence), a strong need to urinate right away (urgency), and urinating often (frequency) in adults when another type of medicine (anticholinergic) does not work well enough or cannot be taken.
- to treat leakage of urine (incontinence) in adults with overactive bladder due to neurologic disease when another type of medicine (anticholinergic) does not work well enough or cannot be taken.
- to prevent headaches in adults with chronic migraine who have 15 or more days each month with headache lasting 4 or more hours each day.
- to treat increased muscle stiffness in elbow, wrist, and finger muscles in adults with upper limb spasticity.
- to treat the abnormal head position and neck pain that happens with cervical dystonia (CD) in adults.
- to treat certain types of eye muscle problems (strabismus) or abnormal spasm of the eyelids (blepharospasm) in people 12 years and older.

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

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

BOTOX Cosmetic is a prescription medicine that is injected into the area around the side of the eyes to improve the look of crow’s feet lines in adults for a short period of time (temporary).

You may receive treatment for frown lines and crow’s feet lines at the same time.

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

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

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

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

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

Who should not take BOTOX or BOTOX Cosmetic?

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

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

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

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

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

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

Especially tell your doctor if you:

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

- take a sleep medicine
- take anti-platelets (aspirin-like products) and/or anti-coagulants (blood thinners)

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

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

How should I take BOTOX or BOTOX Cosmetic?

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

What should I avoid while taking BOTOX or BOTOX Cosmetic?

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

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

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

Other side effects of BOTOX and BOTOX Cosmetic include:

- dry mouth
- discomfort or pain at the injection site
- tiredness
- headache
- neck pain
- eye problems: double vision, blurred vision, decreased eyesight, drooping eyelids, swelling of your eyelids, and dry eyes.
- urinary tract infection in people being treated for urinary incontinence
- painful urination in people being treated for urinary incontinence
- inability to empty your bladder on your own and are being treated for urinary incontinence. If you have difficulty fully emptying your bladder after getting **BOTOX**, you may need

to use disposable self-catheters to empty your bladder up to a few times each day until your bladder is able to start emptying again.

• allergic reactions. Symptoms of an allergic reaction to **BOTOX** or **BOTOX Cosmetic** may include: itching, rash, red itchy welts, wheezing, asthma symptoms, or dizziness or feeling faint. Tell your doctor or get medical help right away if you are wheezing or have asthma symptoms, or if you become dizzy or faint.

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

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

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

General information about BOTOX and BOTOX Cosmetic:

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

This Medication Guide summarizes the most important information about **BOTOX** and **BOTOX Cosmetic**. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about **BOTOX** and **BOTOX Cosmetic** that is written for healthcare professionals.

What are the ingredients in BOTOX and BOTOX Cosmetic?

Active ingredient: botulinum toxin type A
Inactive ingredients: human albumin and sodium chloride

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

Manufactured by: Allergan Pharmaceuticals Ireland a subsidiary of: Allergan, Inc.

2525 Dupont Dr.

Irvine, CA 92612

Revised: 09/2013

© 2013 Allergan, Inc.

® marks owned by Allergan, Inc.

Myobloc® is a registered trademark of Solstice Neurosciences, Inc.

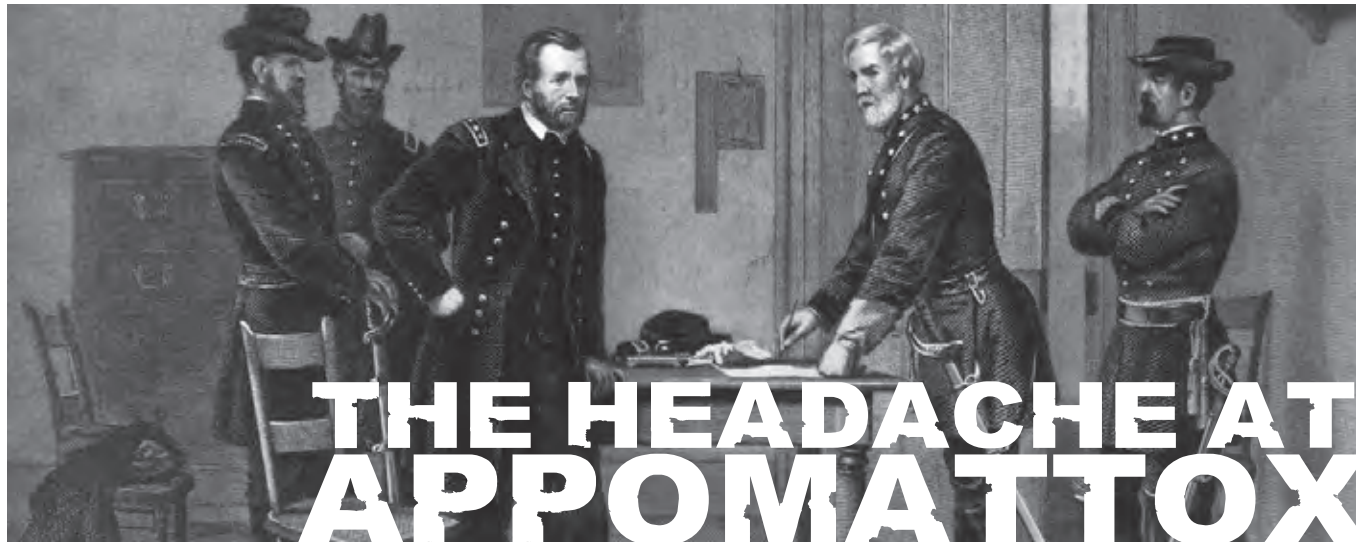
Dysport® is a registered trademark of Ipsen Biopharm Limited Company.

Xeomin® is a registered trademark of Merz Pharma GmbH & Co KGaA.

Patented. See: www.allergan.com/products/patent_notices



Based on 72284US16
APC13NF13



Mary A. Franklin

Director of Operations
National Headache Foundation
Chicago, IL

Seymour Diamond, MD

Executive Chairman and Founder
National Headache Foundation
Director Emeritus and Founder
Diamond Headache Clinic
Chicago, IL

Editor's Note: Because we have recently celebrated the 150th anniversary of the end of the Civil War, it seemed appropriate to republish this article about a famous general, president, and migraineur. The headaches and the depressive bouts suffered by Ulysses S. Grant are frequently cited in his biographical notes.

This article is based on a previously published article of the same name which appeared in *Headache Quarterly* 1999; 10:145-146.

One of the major figures of the U.S. Civil War was the best known of the Union commanders, Ulysses S. Grant (1822-1885), who later served as the 18th President of the United States. Born in Ohio, where his father had a leather tannery, Grant developed an early proficiency for handling horses. He was a precise child, did well in mathematics, and earned an appointment at the U.S. Military Academy in West Point, New York. His tenure at the Academy was undistinguished – graduating 21st in a class of 39 – except for his masterful equestrian skills. After graduation in 1843, he was posted to St. Louis where he met his future wife, Julia Dent, whom he married in 1848. Grant served with distinction during the Mexican War, earning two brevets for meritorious conduct at the battles of Molino del Rey and Chapultepec.

A military life seemed his destiny until he was transferred to the Pacific Northwest in 1852, and Grant became extremely depressed during his absence from his family. Throughout Grant's life, his depression usually triggered a bout with excessive alcohol consumption. This problem forced him to resign from the Army in 1854.

Success on the battlefields did not translate into success

in business. In St. Louis, Grant tried his hand at farming, real estate, politics, and civil service as a customs agent – all to no avail. With financial obligations at a critical point, Grant moved his family to Galena, IL, and worked as a clerk in a leather goods store owned by his brothers. Living in Galena was interrupted by the outbreak of the Civil War, and Grant was again called to serve his country. He received an appointment as a colonel in an Illinois regiment. Due to his military experience and leadership skills, he was soon appointed a brigadier general of volunteers. It should be noted that the Union Army was conspicuously lacking in experienced military leadership. The cream of the pre-war army had allied with the Confederacy, leaving a void at the top of the U.S. army.

Throughout his military career, Grant demonstrated consistent behavior, serious judgement, and unflinching courage in the face of great odds. While the armies in the Eastern theater of war were losing major battles, Grant in the West, started charting military victories. Unlike many of his colleagues, Grant did not pursue his own political agenda, but dealt with the matters at hand. The first major battle in the West was at Shiloh, Tennessee. On the first

day of the battle (April 5, 1862), all seemed lost for the Union. However, Grant's arrival in the evening helped the Union forces regroup, and they soundly defeated the rebels on the battle's second day. Due to political machinations by his superiors (primarily, General Henry Halleck), Grant's leadership was ignored. He again fell into a depression and reportedly, his drinking problem reappeared. The talents of this great military leader were squandered during the next few months, until he was appointed commander of the Department of Tennessee, and was instructed to lay siege to Vicksburg, MS – a major Confederate supply center located on bluffs above the Mississippi river. Despite many maneuvers by Grant's forces and naval gunboats on the river, the city did not capitulate until July 4, 1863. This event, combined with the Union victory at Gettysburg, PA, on July 3, 1863, signaled the turning point of the war.

Because of Grant's continuing successes, he was appointed general-in-chief of all Union forces in February, 1864. Grant's self-reliance, tenacity, and confidence impressed President Abraham Lincoln, who noted to a Grant detractor that "I can't spare this man, he fights." Now leading troops in the Eastern theater, Grant was confronting the exceptional skills of General Robert E. Lee who had been Grant's superior during the Mexican War. The remaining months of the war became a battle of wits between Grant and Lee. Through extraordinary efforts, the Confederate army was finally in total retreat in April, 1865, culminating in the surrender at Appomattox Court House, VA, on April 9, 1865.

In peace, and following the assassination of Lincoln on April 14, 1865, Grant remained general-in-chief, and then served as Secretary of War under Lincoln's successor, Andrew Johnson. Because Grant believed in rigorous Reconstruction policies for the defeated Confederate states, he made many allies in the Republican party. Like many generals before and after him, Grant was successful in politics – winning the 1868 Presidential election. He was reelected in 1872. And similar to many military figures turned politicians, Grant was not an effective president. His two terms are remembered for rampant graft, scandal, and corruption.

Following his retirement from the presidency, Grant tried for success in business and again was repulsed. To regain financial security for his family, and knowing that he



was dying of throat cancer, Grant began working on his memoirs. He finished them days before his death on July 23, 1885, at Mount McGregor, NY. He is interred in "Grant's Tomb" on Riverside Drive, in New York City. The two volumes of his memoirs were profitable, and have become classics.

Unlike Thomas Jefferson, Grant did not leave extensive journals nor correspondence. Grant did maintain a wartime journal, as did many of his colleagues. George Meade, his second-in-command recalled Grant riding into camp on the evening of April 8, 1865:

"(Grant) had one of his sick headaches, which are rare, but cause him fearful pain, such as almost overcomes his iron stoicism."

Grant's journal for that date truly gives testimony to his migraine problem:

"I was suffering very severely with a sick headache, and stopped at a farm house on the road some distance to the rear of the main body of the army. I spent the night in bathing my feet in hot water and mustard, and putting mustard plasters on my wrists and the back part of my neck, hoping to be cured by morning."

Unfortunately, the headache remained when Grant awakened. Soon after he rose, a messenger arrived with a communication from General Lee. On the previous day, Lee had refused to surrender but now indicated that he was willing to talk peace terms. Grant's next journal entry reports:

"When the officer reached me, I was still suffering from the sick headache; but the instant I saw the contents of the note I was cured."

Grant later commented to his aide, Colonel Horace Porter, that *"The pain in my head seemed to leave me the moment I got Lee's letter."* This was a sentiment shared by many Americans, on both sides of the Mason-Dixon line.

Recommended reading:

1. McFeely WS. Grant. New York: WW Norton; 1982.
2. Grant US. Personal Memoirs of U.S. Grant, 2 vols (McFeely WS, ed). New York: DaCapo Press; 1982.

Photo credits: (cover) Lee Surrenders To Grant Ending The Civil War – Appomattox, Courthouse, Old, Virginia, Fame (Left) Lt. Gen. Ulysses S. Grant standing by a tree in front of a tent, Cold Harbor, Va., June 1864. 111-B-36. (Right) Lee, Gen. Robert E.; full-length, standing, April 1865. Photographed by Mathew B. Brady. 111-B-1564. U.S. Postage Stamp, 1965 issue, commemorating the centennial anniversary of the Confederate surrender at Appomattox Court House



THE HEADACHE CLINICS

featuring:

The Michigan Headache Clinic
East Lansing, Michigan



The Michigan Headache Clinic was founded in 1981 as a private practice by Edmund Messina, MD, and Jayne Bailey Messina, RN. The following is based on an interview with Doctor Edmund Messina, the Director of the Clinic.

Doctor Edmund Messina attended medical school at the University of Illinois in Chicago. He remained in Chicago to complete an Internal Medicine internship at the former Michael Reese Hospital, and then traveled to Saint Louis, MO for a neurology residency at Washington University. Dr. Messina reflects on his years in medical school and internship in the book, *The Spattered White Coat*. He advised that his introduction to headache medicine occurred when he attended a lecture on headache in medical school which was presented by Seymour Diamond, MD, the Executive Chairman of the National Headache Foundation.

He is certified in Neurology by the American Board of Psychiatry and Neurology, and received subspecialty certification in Headache Medicine from the United Council for Neurologic Subspecialties in 2008. He became a Fellow of the American Headache Society on November 15, 2012. Dr. Messina is Clinical Associate Professor of Medicine at Michigan State University's College of Human Medicine. He is the founder and Medical Director of Arbor Medicus™, a patient and physician advocacy and educational website.

In 1981, with his wife, Jayne Bailey Messina, RN, they founded the Michigan Headache Clinic in East Lansing,

MI. Ms. Messina serves as a clinical nurse as well as administrator. Their staff includes nurse practitioner, Noelle Helmick, CNP, CS, RN; clinical nurse, Judy Calhoun, RN; medical assistants, Christina Buckmaster, MA and Jill Sewell, MA; and the administrative staff – Julie Hill, Calie Risch, with IT specialist Tim Thelen.

The typical patient at the Michigan Headache Clinic presents with painful disorders of the head or face, and usually with a complex medical history. Adults, as well as children, 12 years and older, may be seen at the clinic. Self-referrals are accepted if the Clinic participates with the patient's insurance.

The first appointment consists of an in-depth interview by the nurse, a thorough history and neurological examination conducted by Dr. Messina, and followed by personalized patient education by the nurse. A typical day at the Clinic consists of new patient visits, return visits which start with the nurse or medical assistant taking an interval history, and a detailed encounter with Dr. Messina or the nurse practitioner. The nurse will conclude the visit with additional patient teaching. Some return visits are conducted through remote telemedicine for patients living at greater distances. Because of the pain being experienced by new patients, all efforts are made to evaluate



Noelle L. Helmick, CNP, CS, RN



Michigan Headache Clinic Staff



Edmund Messina, MD

them within a couple of weeks. Initial visits are expedited even if it means modifying the schedule. If a colleague has an urgent request for a referral, the staff will make every effort to accommodate the patient's evaluation.

The main philosophy of the Clinic is to consider the "entire patient" in order to not only establish the diagnosis (or diagnoses) but also to identify and treat those factors which will interfere with a successful outcome. Factors that may impact the patient's treatment include other neurological problems, neck pain, sleep disorders, anxiety, depression, and other issues. All painful disorders of the head and face are treated at the Michigan Headache Clinic. The treatment plan is individualized according to the patient's needs.

Treatment may include medications, counseling, physical therapy, and intervention therapies, such as Botox. At the Clinic, patients are taught auto-relaxation techniques and cervical muscle exercises, and are encouraged to utilize online and personal counseling services, including mindfulness. If inpatient therapy is indicated, Dr. Messina has a long-standing relationship with the Diamond Headache Clinic in Chicago for possible referral of recidivist patients.

The biggest immediate change that Dr. Messina described for the Clinic is the ability to offer virtual visits for established patients, via telemedicine. Patients living at great distances are now able to complete a visit through a secure video connection. The Clinic is also expanding its artificial intelligence expert system to more efficiently gather medical histories. A pioneer in the use of electronic medical records, Dr. Messina has been utilizing computer-assisted history taking since the 1980s. He believes that the future medical climate will be driven by cost effectiveness and that its advanced technology will continue to make the Michigan Headache Clinic affordable to the average patient, despite the rise in insurance deductibles.

When asked what he enjoyed most about working in headache medicine, Dr. Messina revealed that it is gratifying to see patients improving. From visit to visit, patients change for the better, making the practice very worthwhile.

Dr. Messina became interested in headache medicine because he had experienced migraine since the age of 8 years, and he recalled watching his mother suffer from headaches all of his life. There is a long history of migraine in his family, and several of his staff are also migraine sufferers.

In addition to his clinical practice, Dr. Messina has been active in headache education through the media. With his son, Dan Messina, he wrote, produced, and directed a documentary on headaches, *Life and Migraine*, which was broadcast on public television and was released on DVD in 2006. The documentary was featured in an international film festival, and in 2006, Dr. Messina received the *National Headache Foundation Award for Media Excellence*. Another film, *The Headache Which Would Not Go Away*, was completed in 2008, and aired on The Learning Channel and the Discovery Health Channel. The feature-length film, *Lily's Mom*, was released in 2011. Dr. Messina wrote, produced, and directed the film (and had a supporting role) which focuses on self-advocacy in a woman suffering from severe migraine and depression. It was a recipient of an independent film festival Drama Award and a nominee for the Voice Award in Hollywood in 2012.

Dr. Messina was asked what general advice he would give to the patient experiencing headache. He noted that headache patients need to take the initiative to modify their lifestyle and to seek help from those who are willing to spend the time to help them. Patients must realize that most headache disorders, no matter how daunting they seem, are probably quite treatable when the best individualized treatment plan is established. **HW**

FOR MORE INFORMATION ON THE CLINIC, PLEASE VISIT:

www.michiganheadache.com

Michigan Headache Clinic
1675 Watertower Place, Suite 600
East Lansing, Michigan 48823
(517) 324-3445

Thank you

Your Contributions to the National Headache Foundation Help Fund Projects

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

Please select one of the following giving categories:

\$250 \$125 \$100 \$75 Other _____

Name: _____

Address: _____

City: _____

State/Zip: _____

Daytime Phone: _____

Method of Payment:

Check or Money Order payable to National Headache Foundation

Visa MasterCard Amex Discover

Card #: _____ Expiration Date: _____

MEMORIAL & TRIBUTE GIFTS

The practice of asking for donations to a favorite charity in memory of a deceased relative or friend is very thoughtful. A gift may also be given as a tribute in the name of a friend or relative to commemorate significant occasions, such as birthdays, anniversaries, or special events.

During the past year, such requests have resulted in donations which benefit the National Headache Foundation. Acknowledgments of memorial gifts and tributes are mailed to the family or individual. We thank those benefactors and their families who have supported the NHF and its mission.

In Memoriam

Susan Abrams
 Lisa Barrett
 Joan Davis
 Sheree Shelton Duszynski
 Mildred GK
 Michaelina Ifasi
 Marianne Principe Markey

In Tribute

Roger Cady, MD
 Seymour Diamond, MD
 Julie Fleck
 Abby Friedman
 Daniel Gaitan, MD
 Andrea Gallo
 Carter Golden
 Robert S. Kunkel, MD
 Joey Wilder
 Xiaobin Yi, MD

New Membership | Toll-Free (888) NHF-5552 | www.headaches.org

Individual Membership:

\$20.00 to receive *HeadWise*® plus the monthly e-newsletter, *NHF News to Know*, when you join the National Headache Foundation

In addition, I'd like to make a tax-deductible contribution in support of NHF's educational programs in the amount of: \$10 \$25 \$50 Other: \$ _____

Name (Please Print) _____

Address _____

City/State/Zip/Country _____

Preferred Phone # _____ E-mail Address _____

Payment:

Payment enclosed (check payable to National Headache Foundation)

Charge to my credit card: Amex Discover Mastercard Visa

Credit Card Number _____ Expiration Date _____

Cardholder's Signature _____

Billing Address (If different from mailing address) _____

City/State/Zip/Country _____

Please mail this form with your payment to: National Headache Foundation, 820 N. Orleans, Ste. 411, Chicago, IL 60610 or renew online by visting www.headaches.org



Make migraine and headache visible.
SHOW PURPLE.

Eliminate the stigma.
SHOW PURPLE.

Let sufferers know they are not alone.
SHOW PURPLE.

June is Migraine and Headache Awareness Month
SHOW PURPLE. SHOW SUPPORT.

NATIONAL
HEADACHE
FOUNDATION ™

*45 YEARS OF
INSPIRING HOPE*

Show Purple. **Show Support on Facebook and Twitter.**



/nationalheadachefoundation



/nhf

#NMHAM