Understanding Migraine Disease



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GENDER NOTICE

Unless necessary to make the distinction, "he," and "him" will be the words used throughout this book. This is in order to make the book easier to read without having to include "he/she" and "him/her." It is not meant in any way to discriminate against the female gender.

INTRODUCTION

Headaches have plagued people for years. There are many different kinds of headaches, all with their own unique characteristics and presentations.

Unfortunately, they also steal people's joy of life, sometimes making it hard to function in a world where productivity is highly regarded.

Thankfully, there are ways to begin to reclaim your life!

In this guide, the key areas addressed include:

- The toll migraines take on people who get them
- When a bad headache may be serious, and warrants immediate medical attention
- The different types of headaches, including different types of migraines
- Signs and symptoms of migraines and some other kinds of headaches
- The four stages of a migraine
- The causes of migraines, and how that differs from triggers
- What triggers migraines
- The different types of medications used for migraines
- Other non-medication treatments for migraines
- Things you can do to help yourself reduce the pain and frequency of migraines
- Migraines in particular groups of people
- Weekend migraines, travel migraines, and the relation between migraine and depression.
- Getting prepared to see your physician
- Use of headache and food diaries
- When to go to the hospital with a migraine

Chapter 1: The Stats & Consequences of Migraines are Staggering

Millions of people throughout the world experience headache pain. Despite this commonality, it remains one of the most debilitating, isolating conditions.

Headaches are not a visible disability, such as someone who limps or needs to use a cane. That is why some experts refer to headaches as the "invisible disability." In fact, in earlier times, migraine sufferers were looked at as though they had psychological illnesses, often being called "neurotic."

Once headaches were recognized as an actual neurological condition, scientists began studying their causes and possible treatments.

In addition, many pharmaceutical companies have joined in the funding of research to find medications that can reduce people's pain and suffering.

Headaches are not limited to adults either. They are experienced by all age groups from young children to older adults.

Like the headache commercials on television indicate, nothing else matters when you are suffering with headache pain. You could have won the lottery, and the pain would prevent you from celebrating!

If you are reading this, then you are likely one of the many people who experiences headaches, or you know someone who does.

The World Health Organization (WHO) refers to headaches as nervous system disorders that can be further broken down into many different types, of which migraine is one.

The WHO also goes on to say that migraine is ranked number nineteen as the cause of people living many years with a disability!

Besides the physical pain that headaches cause, they also result in many emotional, financial, and social problems.

Examples of emotional problems may include:

- Fear of when another headache will strike
- The anticipation of illness due to headache
- Worrying that a headache will strike at an inconvenient time of your life
- Worrying that your employer will fire you for too many days missed due to headaches (this may vary depending on the country you live in)
- Feelings of social isolation and feeling like no one else knows what it is like
- Feelings of depression

Examples of financial problems may include:

- Lost time at work, which may mean no pay for some people
- Lost jobs due to too many days away from work
- Inability to work full-time hours due to headaches

Examples of social problems may include:

- Missing your children's or family's events due to headaches
- Feeling like you are unable to plan social events too far in advance, should a headache strike
- Conflicts with friends and family who do not understand what you are experiencing
- Family and friends try to offer advice of what may be causing your headaches, as though you are not doing enough to prevent them in the first place.

Here are some interesting stats about headaches:

- Migraine headaches are estimated to affect 29 million Americans alone.
- Migraines are not the most common type of headache; tension-type headaches are actually the most common.
- However, migraines are the most common debilitating type of headaches.
- 20% of women experience migraines, whereas only 5% of men have them, when you factor in all age groups.
- Migraines tend to be hereditary, particularly on the maternal side of the family.
- One migraine is likely the result of many triggers coming together at the same time.
- It not unusual to experience different kinds of headaches over a year. For example, some may be migraines, whereas others may be the tension-type ones.
- 1/5 of boys will experience their first migraine before the age of seven.

Chapter 2: Is it a Migraine or Is it Something Else?

You have probably noticed that many people use the word, migraine, to describe any or all of their headaches. In fact, migraine is just one type of headache. As well, many people who think they are suffering with a migraine, may actually have a different kind of headache.

In other words, the word "migraine" is overused. Although you may very well suffer from migraines, other diagnoses need to be considered too.

Headaches are divided by physicians into two categories:

- 1. Primary Headaches There is no disease or other condition that is causing these types of headaches.
- 2. Secondary Headaches These types of headaches can be a cause for concern. They can be symptoms of a more serious condition such as tumors, bleeding in the brain, high blood pressure, brain injuries, meningitis, etc. Your physician will need you to undergo tests, if he suspects you are experiencing secondary headaches. Secondary headaches also include those you get when you have a cold or a sinus infection, for example.

IMPORTANT: In any case, if you have a headache that comes on, and it is the worst headache and excruciating pain that you have ever had, you should always seek medical attention immediately!

Here are some other ways to know if you should see a physician immediately about your headache:

- A severe headache that comes on very suddenly.
- You begin to experience headaches that are unlike your usual headaches. For example, if you suddenly experience numbness and tingling, difficulty talking or walking, and you have a headache, and this is not normal for you, be sure to be evaluated immediately. Another example is if you always have very severe headaches, but now your headaches are even worse than ever, or the headaches are becoming more frequent.
- You have never had headaches at all before, and now you are getting them.
- You lose consciousness when you have the headache.
- You experience a headache after an injury.
- You have a headache, plus stiff neck, fever, and chills.
- You have headaches with confusion.

In what follows, you will learn about the main kinds of headaches that exist.

In actuality, there are many more kinds of headaches than the ones listed below, but you will learn about the main ones. In order to determine what kind of headaches you are experiencing, it is best to seek out a physician who specializes in this area. When making a diagnosis, a specialist can use the International Classification of Headache Disorders (ICHD) to guide him.

Although each kind of headache has specific characteristics, it is common that you may experience a number of symptoms of more than one kind of headache. Therefore, although you may not have all the symptoms of one type of headache, or you have a combination of several of them, it is best for you to begin to take note of your symptoms. Then you can use this information to help your physician make an appropriate diagnosis.

You may be wondering if you really need to see a physician about your headaches.

Unfortunately, many people learn to live with the pain of headaches. However, if you are experiencing dysfunction in your life (ex. pain affecting your work, social, and personal life), then you should see a physician for appropriate treatment. There are many effective treatments, and alterations to your lifestyle that can make a world of difference!

Here is information about the main types of headaches:

Migraine (with aura):

- It was previously called a "classic" migraine, but this term is now considered outdated.
- An aura may include a variety of neurological symptoms that occur, on average, from 10 to 60 minutes before the migraine, although there is some variance with this timeline.
- Some symptoms of an aura may include:
- Tingling in your hands or face
- Seeing flashes of light
- Seeing zigzag lines, almost as though you're looking out of a cracked window
- Seeing blind spots
- Vision is blurred
- Partial or complete loss of vision
- Slurred speech or speech that is completely unintelligible
- Smell and taste are distorted
- Approximately 20% of people, who get migraines, also experience auras

Migraine (without aura):

- It used to be called a "common" migraine, but this is an old term.
- The main difference with this type of migraine is that there is no aura experienced.
- This is the main type of migraine headache that migraine sufferers experience.
- Migraine, without aura, is experienced by 60% to 80% of all migraine sufferers.

Silent migraine -

- This is a migraine, but there is no headache pain
- The migraineur may experience the same physical and cognitive symptoms or that of aura, except there is no headache pain. So despite no head pain, the other symptoms can disrupt your life.

Migraines tend to have the following characteristics in common, although you may not experience all of them:

- Pain usually occurs on one side of the head
- Pain may be consistent, throbbing, or sharp
- You may be nauseous and/or vomiting
- You may have diarrhea
- You may experience pain on one temple or at the back of your head
- The pain is so bad that you cannot function or perform your activities of daily living
- It feels better to rest in bed
- Sounds are heightened, and make your head feel worse so you need quiet
- Particular scents may make you feel sick
- Bright light makes your head ache, so you need to darken the room
- The pain may be so severe that you cannot sleep, work, or care for your children
- It hurts to think or concentrate on anything
- The hair on your head may hurt
- You feel fatigued
- You crave certain foods
- You have chills

Migraines consist of 4 stages: (although not all migraineurs go through all stages)

- 1. Prodromal: These are the symptoms that precede the migraine. Symptoms may include irritability, yawning, fatigue, trouble concentrating, feeling hyperactive, elated, or agitated. Approximately 25% of people get the migraine within 24 hours of the start of the prodromal symptoms.
- 2. Aura: Not all people experience the aura. If a headache follows the aura, it usually occurs 10 to 60 minutes after the aura begins.
- 3. Pain: This is the constant, pounding pain typical of a migraine. Other symptoms of migraine can also be present. The pain can last anywhere from a few hours to weeks. If it lasts weeks, the medical term is "status migranosus."
- 4. Postdromal: During this stage, the pain is gone, but there are other symptoms that may include fatigue, confusion, or depression. It can last up to 24 hours.

Tension-Type Headaches

Tension-type headaches are actually the most common headaches. Despite their name of "tension" headaches, they are thought not to occur only due to tension.

Signs and symptoms may include:

- A dull ache described as a band around your forehead or the back of your head that feels tight
- The pain is not pulsating in character
- Pain that isn't bad enough to keep you from performing your activities of daily living.
- Pain is on both sides of the head
- There is no nausea or vomiting
- Bright lights or sounds make the pain worse

Can You Have More Than One Kind of Headache?

Yes, you may be someone who has both migraines and tension-type headaches. This is actually quite common. That is why it is important to help your physician determine if you are suffering from both.

The best way to do this is through the use of a "headache diary." How to use one is discussed later in this book.

Cluster Headaches -

- These types of headaches are not as common as migraines and tension-type headaches.
- These types of headaches are more common in men than in women.
- The pain from this kind of headache has been known to cause some people to bang their heads against the wall in frustration.

Signs and symptoms may include:

- Pain that comes on very quickly, and can be excruciating.
- The pain is "clustered" into a number of attacks. For example, you may experience several headaches in one day, with a reprieve between each headache.
- The pain may go on like this for many months, before you then have no pain at all. Some people, however, continue to have cluster headaches every day.
- Severe pain on one side or both sides of your head, in the areas of the temples, or around the eye that lasts from 15 to 180 minutes, and there has to be particular symptoms on the same side as the pain. Some of these symptoms include congestion, tear production, runny nose, etc.

Rebound Headaches (a.k.a. Medication Overuse Headaches) -

- Overuse of over-the-counter or prescription pain killers can result in rebound headaches.
- It is not clear why exactly this happens, but it is thought that regular use of pain killers negatively impacts your body's own natural pain-killing abilities.

Chapter 3: Migraine Causes, Triggers, & Diagnosis

What Is the Difference Between Migraine Causes and Migraine Triggers?

Migraine "causes" and migraine "triggers" needs to be differentiated before we go any further.

Migraine "causes" has to do with the neurological and biochemical interactions going on in the brain of the sufferer.

Whereas, migraine "triggers" are the factors that result in a migraine. For example, drinking red wine may be a trigger for a migraine in some people. So migraine triggers can include things like food, environmental, and lifestyle factors.

So What Exactly Causes Migraines?

Unfortunately, the answer is not simple. The brain itself has no pain receptors. For a long time, it was thought that migraines were the result of blood vessels in the brain that would increase in size, making contact with pain receptors found in the lining that surrounds the brain (the meninges), as well as other nerves in the head.

At the current time, however, the cause of migraines is no longer believed to begin with the blood vessels in the brain. Instead, migraines are now thought to be a central system disorder. Simply put, when your brain is exposed to triggers, it appears that your brain releases various brain chemicals such as serotonin, norepinephrine and others. These chemicals then appear to relay pain through the trigeminal nucleus found in the brainstem. The trigeminal nucleus receives pain and other sensory information from several cranial nerves, including the trigeminal nerve. This then results in the expansion of blood vessels in the brain, and the pain and symptoms of migraine.

The auras, that some migraine sufferers experience, have been explained as due to a phenomenon called, cortical spreading depression. It is described as an electrical wave that moves across the surface of the brain (its cortex), due to hyperexcitable brain cells. This has been verified through the use of MRI's.

So What Triggers Migraines?

Triggers are the factors the result in the biochemical events, just described above, being set into motion and resulting in a migraine.

Examples of Common Triggers Include:

- Lack of sleep
- Too much sleep
- Fatigue
- Stress (physical, emotional, financial, work)
- Certain foods and drinks (see list below)
- Caffeine withdrawal
- Hormonal factors such as fluctuations in estrogen levels during menstruation or with use of birth control pills
- Dehydration
- Hunger or skipping meals
- Smoke
- Specific scents (perfumes, cleaning products, paint, etc.)
- Humidity
- Heat
- Brightness (from gray skies, sunny skies, indoor or strobe lights)
- Physical exertion from exercising or sex

No two people are alike. What triggers a migraine for someone may not trigger one for the next person. In addition, it may take more than one trigger, or a combination of triggers before a migraine occurs.

In any case, the key is to begin to identify your triggers. You can use checklists and charts to help you with this.

As mentioned recently, certain foods and drinks can trigger migraines. Here is a list of some common suspects:

- Red wine or other alcoholic drinks such as beer
- Drinks and foods with caffeine (coffee, tea, cola, some non-cola drinks, chocolate)
- Aged cheeses (Cheddar, Brie, etc.)
- Flavor-enhancers such as monosodium glutamate (MSG). It should be noted that simply because a food product is labeled as "contains no MSG," this may be misleading. This is because it may contain free glutamate found in hydrolyzed soy protein (HSP), hydrolyzed vegetable protein (HVP), soya sauce, yeast extracts, and hydrolyzed plant protein (HPP), or naturally-occurring glutamate found in tomatoes and grapes and their juices, as well as some other juices. Some cheeses like Parmesan, as well as mushrooms have naturally-occurring glutamates. So be sure to do your research.
- Preservatives such as nitrates and nitrites, often found in processed meats
- Fermented and pickled foods
- Onions
- Bananas
- Nluta

How is the Diagnosis of Migraine Made?

Blood tests, CT's, MRI's, and lumbar punctures do not make the diagnosis of migraine. If your physician uses any of these techniques, it is because he is checking to make sure that your migraine is not caused by an underlying health problem such as a tumor, brain bleed, or meningitis.

If this is the first time that you are experiencing a severe headache, it came on suddenly, or is unusual for you, it is always best to see an emergency physician to rule out other causes of the headache.

So in order to make the diagnosis of migraine, your physician will do that using the symptoms you describe, as well as any family history of migraines that you may have.

To make an accurate diagnosis, it helps if you go to your physician prepared.

At the end of this book, you will be provided with checklists, diaries, and instructions for use so that you can help your physician help you.

Chapter 4: Some More Types of Migraines

To complicate matters, there are other kinds of migraines other than those already described in Chapter 2!

The other kinds of migraines that we are going to discuss are not as common, but you should be aware of them, nonetheless. You always want to be assessed, because a more serious medical condition needs to be ruled out.

In addition, it is helpful for you to know about these other types of migraines so that you recognize if you have ever had any of these symptoms too.

Basilar-Type Migraine

- This is a type of migraine with aura.
- It gets its name from the basilar artery, which is located at the base of the brain in the area of the brainstem.
- This type of migraine with aura occurs at least two times with at least two of the following symptoms:
- The room feels like it is spinning
- Ringing in your ears
- Double vision
- Consciousness level diminishes
- Difficulty walking or walking is unsteady
- Speech is slurred
- Tingling on the right and left sides of your body

Familial Hemiplegic Migraine

- This is a rare type of migraine with aura.
- It has a genetic link, as a particular chromosome has been identified.
- Therefore, you will have other family members who also have these kinds of migraines.
- The signs and symptoms include aura with one or more of the following:
- Temporary paralysis of one side of the body or extremity (hemiparesis)
- Flickering lights and other visual disturbances
- Speech problems
- Dizziness
- Numbness and tingling

Sporadic Hemiplegic Migraine

- This is the non-familial hemiplegic migraine. In other words, this type of migraine does not have a genetic link.
- The signs and symptoms, however, are the same as the familial hemiplegic migraine.

In either case, your physician will want to rule out stroke or something else neurological.

Retinal Migraine

- Is seen in young people
- It presents as temporary, transient blindness or visual disturbances in one eye
- Lasts from a few minutes to an hour with or without a headache It is important to be evaluated by your optometrist or eye specialist in order to rule out a serious medical condition.

Acute Confusional Migraine

- This is another rare type of migraine.
- This type of migraine is mainly seen in children.
- Signs and symptoms may include:
- Not being oriented
- Vomiting
- Confusion
- There may or may not be a headache

Once again, it is important to see a headache specialist to rule out any other conditions or diseases.

Chapter 5: Medication Options for Your Migraine Pain

The overall goals of migraine treatments are:

- To reduce headache frequency
- To reduce headache severity
- To learn what your migraine triggers are
- To regain control of your life, and live a quality one

When it comes to medication, there are 2 main goals – abort migraines or prevent migraines.

- 1. Abortive Medications -
- These medications either stop (i.e. abort), or improve the migraine before it gets any worse. Often, you need to take these medications within the first hour that the migraine starts, otherwise they are not as effective.
- You may hear abortive medications also referred to as acute, episodic, or symptomatic medications.
- 2. Preventive Medications -
- These medications are usually taken daily in order to prevent migraines from even starting. Sometimes, they may be taken just before menstruation occurs to prevent a migraine from coming on. The goals are to decrease the severity, length, and frequency of attacks.
- You may hear preventive medications referred to as "prophylaxis" treatment. It means the same thing.
- They are often recommended when you are having two or more migraines every month, you are missing a lot of work due to your migraines, and/or the pain-relieving, abortive medications are not effective enough for you.

In order to help your physician determine the best choice of medications and overall recommended treatment for you, you should start thinking about your past headache history and start recording some of the following information:

- A description of your headaches (where they occur, their intensity)
- The frequency of your headaches
- What you have already tried

You will also want to be included in the decision-making process as to what medication treatment method you choose to follow. To help you do this, you must make sure that you understand all the benefits and potential risks of taking particular medications.

Here's a list of the different types of medications that you may be prescribed for your migraines:

ABORTIVE (Acute/Episodic) MEDICATIONS:

1. Over-the-Counter/Non-Prescription Medications

Treat the pain using analgesics such as:

- Cetaminophen known by the trade name, Tylenol
- Acetaminophen, Aspirin, and Caffeine is found in Excedrin

Treat the pain and inflammation using NSAID's (Non-Steroidal Anti-Inflammatory Drugs) such as:

- ASA, known by the trade name, Bayer Aspirin
- Ibuprofen such as Advil
- Naproxen, sold under the trade name, Naprosyn, and is also available in Aleve

Both analgesics and NSAID's can work well for mild to moderate migraines. Each poses its own risks. For example, acetaminophen taken in large doses and/or with alcohol, can result in liver damage. ASA, ibuprofen, and naproxen all carry risk of a sore stomach, ulcers, or bleeding in your stomach or intestines.

If you have moderate to severe migraines, or you do not get relief with over-the-counter preparations, your doctor may need to recommend a prescription medication.

- 2. Prescription Medications
 - NSAID's (Non-Steroidal Anti-Inflammatory Drugs) are used to treat the pain and inflammation.
 - Celebrex is one example of a prescription NSAID. Celebrex poses a risk of ulcers or bleeding in the stomach or intestines, as well as increased risk of heart attack and stroke.
 - Triptans
 - The most common abortive prescription medication
 - They work to counteract the cause of the headache, specifically at the serotonin receptor level (serotonin is a neurotransmitter/chemical found naturally in your brain)
 - Work best when taken as early as possible when you feel the migraine coming on. This reduces the chances of experiencing migraine symptoms, and decreases the recurrence of another migraine within 24 hours.
 - Imetrex and Zomig are a couple brand names of triptan medications, but there are several others. The generic names you may see include naratriptan, almotriptan, sumatriptan, zolmitriptan, and others. Depending on the triptan prescribed, it may be able to be taken orally as a tablet, as a nasal spray, or be injected.

- Ergots
- Are not prescribed as often anymore, as they have more cardiovascular risks than even the triptans do. They also have more side effects such as nausea and vomiting than triptans.
- They are also not used as often, because they have a higher risk of resulting in medication-overuse headaches, and increasing the numbers of migraines. They have also been found to affect migraine preventive medications negatively.
- Many ergots are not well absorbed in tablet form either, but work better in other forms (ex. intravenous).
- Benefits of ergots is that they last longer, reducing the chances of another migraine happening soon.
- Steroids
- May be used for Status Migrainosis (severe migraines that last more than seventytwo hours, despite treatment).

PREVENTIVE MEDICATIONS:

1. Prescription Medications

- Antidepressants
- Despite their name, antidepressants are used for more than just depression.
- Amitriptyline, nortriptyline, and venlafaxine are generic names of antidepressants that are used with migraineurs.
- Appear to work by affecting the serotonin levels in the brain.
- Anticonvulsants
- These are medications used for seizures, but again can be used with migraine sufferers.
- The idea behind these medications is that they are stabilizing the brain cells, so that they are not set off as easily by your migraine triggers.
- Topamax is one brand of anticonvulsant used for migraines
- Anti-hypertensives
- Also known as high-blood pressure medications
- It is not entirely clear how they work to help with migraines, but the beta blocker and calcium channel blockers (type of high blood pressure medications), have proven effective in migraineurs.
- Botox
- Is used in the beauty industry for treating wrinkles, and also medically with people who have spasticity in their muscles due to neurological diseases such as multiple sclerosis or dementia.

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- Botox is actually the commercial name for the Botulinum nerve toxin.
- The botulinum toxin works by binding to nerve endings, resulting in paralysis of the muscles that are innervated by those nerves.
- In the case of migraines, the neurotoxin is also important in that it decreases the release of pain chemicals, thus blocking the sensation of pain.
- Therefore, Botulinum is being used with people who get migraines.

Just remember that all medications carry benefits and risks. You should always review the patient leaflets found online or at your pharmacy, to help you in deciding whether you want to try a particular medication that your physician recommends.

