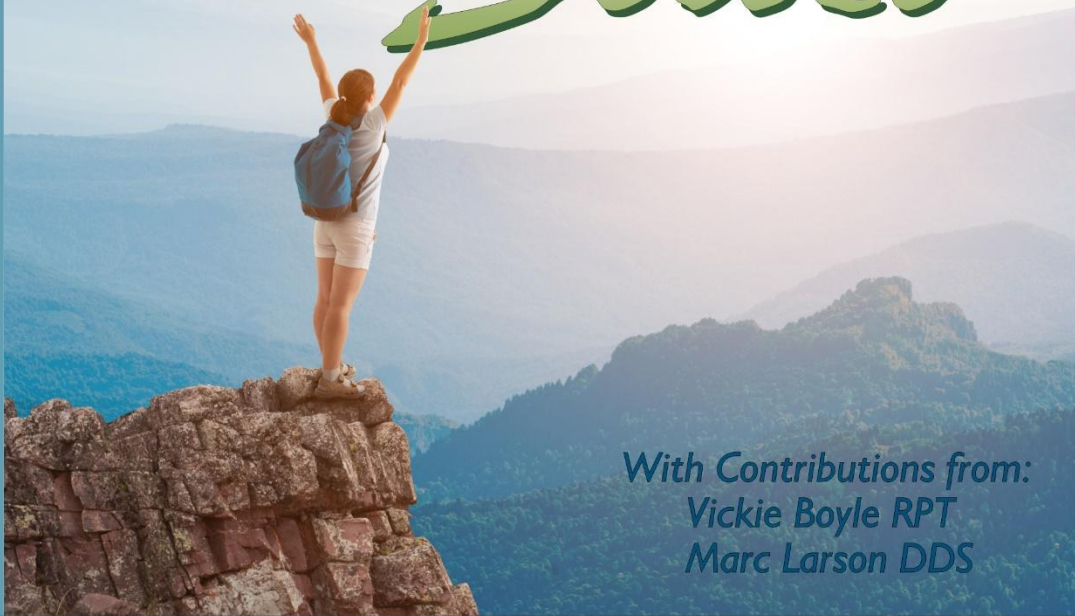


**The True Cause & Breakthrough
Treatment for Fibromyalgia**

Bruce Humphries DC

Fibromyalgia
Solved



*With Contributions from:
Vickie Boyle RPT
Marc Larson DDS*

**Ask
DR BRUCE**

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The information in the e-book is not intended for use for self-treatment of any malady, disease or health condition or for your treatment of any malady, disease, or condition of health of any other person or animal. The e-book proposes a novel theory for the possible cause of some cases of fibromyalgia. This e-book proposes that some of these cases of fibromyalgia may result from a sub-clinical to clinical condition of oxygen lack, of which the primary cause is sleep apnea, suggesting that known treatments for oxygen lack and sleep apnea may improve these cases, which are hereby sub-classified as Oxygen Lack Fibromyalgia™. You should use the information in this e-book only to explore possible treatment option with a health care provider, who is licensed in your state or district to diagnose and treat or refer for treatment of all human disease. These health care providers are typically Physicians and Surgeons (MD), Physicians and Surgeons (DO), Chiropractors (DC), and Naturopaths (ND). Check your state or district licensing laws before proceeding.

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Contributors

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Preface

Hello, I am Dr. Bruce Humphries and I am excited to tell everyone of my journey with treating fibromyalgia. I spent three years working, studying, and testing different theories to uncover the cause. This process is discussed in chapter one. Next, I spent over three years developing treatment protocols and implementing them with my patients.



This book is not like others written to help people manage the symptoms of fibromyalgia. Rather, it is a true uncovering of what might be the most common cause of fibromyalgia and its resulting treatment.

The treatments protocols can be difficult to fully implement for the patient. Patients need to take responsibility for their treatment. The medical office you treat with will not be able to overcome all the obstacles you may encounter. You, the patient, need to do this. There are a number of specific helps contained throughout this book to aid you accomplish this.

I am confident that most everyone who reads this book, learns of the concepts, and follows through with appropriate treatment will see their symptoms minimized, their health improved, and their lives greatly enriched.

A handwritten signature in blue ink that reads "Bruce Humphries DC". The signature is fluid and cursive.

Bruce Humphries DC

Understanding Fibromyalgia

WHAT IS FIBROMYALGIA

Fibromyalgia is a medical disorder that is often controversial as it can be difficult to pin down and fully explain. Its symptoms are common to many conditions and other diagnoses need to be “ruled out” before a patient is told they have fibromyalgia. Complicating matters is the fact that there are no tests for it and no known cause (until now—more on these later).

The hallmark symptom of fibromyalgia is widespread, ongoing musculoskeletal pain that does not respond to treatment and is not otherwise explained. Other common symptoms include fatigue, mild depression (often called fibro fog), and sleep disturbances including non-restorative sleep.

Patients with more involved symptoms are often told they may have anything from multiple sclerosis to chronic fatigue syndrome. Many patients will have already tried several treatments before they are told they have fibromyalgia. Many others are never diagnosed with fibromyalgia when they do in fact have it.

The term fibromyalgia is derived from the Latin, *fibro-* meaning “fibrous” (or connective tissues), Greek *myo-*, “muscle,” and Greek *Algos-*, “pain.” Thus, it literally means “muscle and fibrous “connective tissue” pain.”

History

In 1987, the American Medical Association (AMA) recognized fibromyalgia as a true illness and a major cause of disability.

Before 1990, no guidelines for evaluating and diagnosing fibromyalgia existed. To reduce misdiagnosis and confusion, the American College of Rheumatology (ACR) sponsored a multicenter study to develop these criteria; the results were published in 1990 [see table 1].¹

In 1993, the Copenhagen Declaration established fibromyalgia as an official disease recognized by the World Health Organization. It states; “Fibromyalgia is a painful but not articular condition predominately involving muscles; the most common cause of chronic widespread musculoskeletal pain.”²

Over time, the diagnosis has become more accepted. The biggest concern for those who have fibromyalgia is that there is no known cause and no cure. It is the aim of this book to introduce what I believe is the true cause of most cases of fibromyalgia, along with treatment protocols demonstrated to resolve the condition.

Table 1

1990 American College of Rheumatology

1. History of widespread pain.

Definition. Pain is considered widespread when all of the following are present: pain in the left side of the body, pain in the right side of the body, pain above the waist, and pain below the waist. In addition, axial skeletal pain (cervical spine or anterior chest or thoracic spine or low back) must be present. In this definition, shoulder and buttock pain is considered as pain for each involved side. "Low back" pain is considered lower segment pain.

2. Pain in 11 of 18 tender point sites on digital palpation.

Definition. Pain, on digital palpation, must be present in at least 11 of the following 18 sites: *Occiput:* Bilateral, at the suboccipital muscle insertions. *Low cervical:* bilateral, at the anterior aspects of the intertransverse spaces at C5-C7. *Trapezius:* bilateral, at the midpoint of the upper border. *Supraspinatus:* bilateral, at origins, above the scapula spine near the medial border. *Second rib:* bilateral, at the second costochondral junctions, just lateral to the junctions on upper surfaces. *Lateral epicondyle:* bilateral, 2 cm distal to the epicondyles. *Gluteal:* bilateral, in upper outer quadrants of buttocks in anterior fold of muscle. *Greater trochanter:* bilateral, posterior to the trochanteric prominence. *Knee:* bilateral, at the medial fat pad proximal to the joint line.

Digital palpation should be performed with an approximate force of 4 kg for a tender point to be considered "positive", the subject must state that the palpation was painful. "Tender is not to be considered "painful."

* For classification purposes, patients will be said to have fibromyalgia if both criteria are satisfied. Widespread pain must have been present for at least 3 months. The presence of a second clinical disorder does not exclude the diagnosis of fibromyalgia.¹

What are the symptoms of fibromyalgia?

The most common symptoms include:

- Chronic widespread muscle pain, spasm, or tightness that does not respond to treatment and is not otherwise explained.
- Chronic fatigue.
- Sleep disturbances including non-restorative sleep.
- Sleep apnea.
- Restless legs.
- Allodynia—a sensitivity and painful response to pressure (more on allodynia below).
- Non-cardiac chest pain.
- Difficulty remembering, concentrating, and performing simple mental tasks (“fibro fog”).

Less common symptoms include:

- Joint stiffness.
- Mood disorders.
- Facial and jaw tenderness.
- Sensitivity to: odors, noise, bright lights, and cold.
- Numbness or tingling in the face and extremities.

Alloying—a sensitivity and painful response to pressure

Some patients are so sensitive that they cannot take even light touching. This sensitivity and painful response to pressure is called *alloying*. In my practice, I find there are two levels of complaints associated with fibromyalgia. Both levels have the same symptoms list. However, the lesser level (non-alloying) has musculoskeletal complaints in which people do not like their *muscles* touched much. With these people, we treat them with a “less is more” approach. In other words, gentle therapy and therapy less often. I find an even higher level of complaint with patients who have alloying. These patients cannot take even light pressure and simply do not come in for treatment.

How prevalent is fibromyalgia?

Fibromyalgia is estimated to affect 2–4% of the population,³ with a female-to-male incidence ratio of approximately 9:1.⁴ Additionally children, postmenopausal women, the elderly, and men can also be affected.

Note: this 9:1 female-to-male ratio is according to the literature. With the work I have done in treating fibromyalgia, I believe that men are greatly underreported. I find a 1:1 (equal) ratio of women to men. Men are told they have arthritis, or if one area hurts more than other areas, that they need a surgery. I also find men only complaining about their biggest area of pain. They often do not report hurting all over until I query deeper into their symptoms.



WHAT IS THE CAUSE OF FIBROMYALGIA?

Fibromyalgia is most likely brought on by a variety of causes. As a result, it is likely accurate to describe fibromyalgia as a cluster of conditions. There are various theories about what causes fibromyalgia, none of which has led to a cure. I have discovered what I believe is the leading cause, and I discuss how I came to this conclusion below.

How did I get involved with researching and treating fibromyalgia as a chiropractor?

I had a patient (a close relative) who I felt had fibromyalgia who I wanted to help. The lack of a treatment led me to study, research, develop theories, and work through my ideas to find the cause. This process took three years. Once this breakthrough happened, I then spent three to four more years working with my patients to create treatment protocols that work.

I approached unraveling fibromyalgia by looking at it as a primarily muscle problem. There are many symptoms of fibromyalgia, but my patients came to me as a chiropractor for their muscular complaints, and any list of fibromyalgia symptoms will put muscular pain at the top. Being a chiropractor and working with the musculoskeletal systems made me uniquely qualified to interpret and go after the muscular angle of fibromyalgia (as opposed to such theories as autoimmune or nerve hypersensitivity).

My “study” patient was an otherwise healthy male in his early 40s who had chronic muscle spasms not responding to therapy for seemingly no reason. Being a chiropractor, I knew his pains were muscular, not articular (joint pain), not nerve pain, not pain associated with an illness, etc. His pains seemed to be chronic muscle spasms. What would cause muscles to continually contract in the absence of trauma or illness? After much thought about possible physiological mechanisms, I theorized that a chronic lack of oxygen to the muscles would be a good concept to start with.

My first theory of what would cause a lack of oxygen getting to the muscles was anemia. A person with anemia has low hemoglobin in their blood, which causes their blood to have a reduced ability to deliver oxygen to the body tissues. I had my patient get blood work for anemia. His ferritin (anemia test) levels came back borderline anemic! I thought my theory was off to a good start. He gave blood regularly; he did not eat leafy green vegetables, and had a low protein diet. These things can lead to low iron in the blood (which leads to low hemoglobin). So, iron supplementation was suggested and started, as well as an increase in protein in his diet. Follow-up blood work showed his iron levels returned to normal. However, he experienced no change in his fibromyalgia symptoms. Therefore, I went back to the drawing board for a new theory. What else was the cause of his chronic muscle spasms?

At this time, I had a respiratory therapist as a patient. I would run my ideas past her. She tested my patient with a spirometer (lung capacity test) and stated that he had the lung capacity of a 70-year-old! This spirometry reading suggested that something was wrong with his breathing.

I had my patient do lung exercises, which did nothing to help his muscular pain. He purchased a breathing product that required him to inhale and exhale with increased force. This product is for athletes who want to increase their lung capacity. However, he already worked out 3–4 days a week and was not out of shape. As a result, this lung exercise did nothing to help his spirometry readings or his chronic pain.

Somewhere around this time I got to thinking that if his diaphragm muscle (our main breathing muscle) wasn't working well (demonstrated by the poor spirometry results), he would then primarily breathe with his accessory breathing muscles (chest and rib cage muscles) which would lead to shallow breathing. (Try taking a very deep breath with only your accessory breathing muscles—chest and rib cage—and not use your diaphragm-belly breathing. You will notice that you are greatly inhibited.) This is why he had the lungs of a 70-year-old on the spirometry test, even though he could exercise well (he did not really have the lungs of a 70-year-old. Later he would redo the spirometry test with correct deep diaphragm breathing technique and his test results became correct for his age). So, my patient was not breathing with his diaphragm (belly breathing).

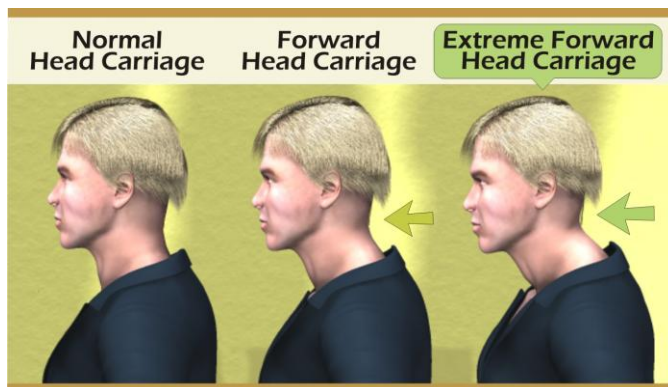
I discussed the spirometry findings with the respiratory therapist who suggested the patient do an overnight oximetry test (pulse-ox test), which gave him a reading of mild to moderate *sleep apnea*. This showed he was not breathing at night. When I went over the results of the overnight test, he additionally reported that he would occasionally stop breathing during the day!

I asked myself; what would cause the diaphragm to perform poorly? In chiropractic school, we would use pneumonic devices to memorize information. As a result, I readily remembered the pneumonic “C3,4,5 keep the diaphragm alive.” Thus, pressure on the spinal nerves of C3,4,5 (nerves in his neck) could theoretically cause the diaphragm to work poorly. My patient *did have* “extreme forward head carriage” (in other words, his head sat very far forward—see illustration

→). So, this became my latest theory. (That is the process of the scientific method. You start with a theory, test it, and measure the results against your theory. If the theory is not supported, you abandon it or modify it.)

I gave my patient the neck exercise “Anterior to Posterior Glides” (A-P glides—see photos in chapter 3 on treatment) to help bring his head posterior (backwards). (My patient already used a correct pillow and had good sleep posture.)

These neck exercises restored approximately 50% of the curve. This was enough to take the pressure off of the nerves. It worked! His pulse ox test returned to normal, which demonstrated that his sleep apnea had resolved and his fibromyalgia symptoms disappeared 100%. He continued to do the exercises for 1½ years with almost complete success. At one point, he stopped doing the exercises and his fibromyalgia symptoms returned. Then he resumed the exercises and his fibromyalgia symptoms quickly abated. He has been faithful in doing his exercise and has been fine ever since. (Further treatments outlined in the treatment chapter were added over time including neck stretching which permanently fixed the forward head carriage. Why stretching is permanent and exercise is temporary is discussed in the treatment section.) This is one of the ways to know if the treatment works. No symptoms when a person does the treatment, and the returning of symptoms when they do not. Therefore, the A-P glide exercise was successful in bringing his neck posterior enough that his breathing and his overnight oximetry reading returned to normal. And, best of all, his fibromyalgia disappeared. So, my patient had sleep apnea caused by an underperforming diaphragm.



It was sometime after this that I reviewed my theory regarding C3,4,5 spinal nerves pressure as the problem. I thought through an alternate theory that a C1/C2 shearing (upper neck vertebra C2 shearing under the C1 vertebra, which would lead to pressure on the breathing centers of the brain stem) was most likely the cause. The same forward head carriage finding my patient had can also lead to chronic C1/C2 fixation, which in some patients theoretically could lead to this shearing of C2 vertebra under C1. At times my patient would have this finding. The same A-P glides neck exercise used to bring the cervical spine posterior forward, would also correct the C2 vertebra from shearing under C1. This would take the pressure off the brain stem, leading to a resolution of proper breathing, leading to resolution of sleep apnea (as well as daytime apnea). However, my patient would later have a month-long stint of his C1/C2 fixation and he did not develop sleep apnea. Additionally, the C1/C2 fixation is transient, whereas the *extreme forward head carriage* is not. So, after this observation with my patient, and considering the transient aspect, I returned to the C3,4,5 theory as the cause of the nerve pressure, which continues to be my belief.

I had fixed my first fibromyalgia patient. Next, I would begin to expand treatment to additional patients. As my usual patients would come in occasionally some of them would have fibromyalgia. However, most did not have the extreme forward head carriage. So, what was the cause? Now I did not have to discover a completely new cause of fibromyalgia. I knew sleep apnea caused the fibromyalgia of my first patient. All I had to do was look into the various causes of sleep apnea.

My efforts with understanding fibromyalgia are a work in progress. I will continue to update the information contained in these pages as new data are brought forth.

I again consulted with my respiratory therapist who taught me much about sleep apnea. I learned about the various causes of sleep apnea. I started to question my patients and test them with overnight pulse oximetry testing and slowly the answers began to come forth. It became clear that almost every one of my patients with fibromyalgia had sleep apnea. The current medical position is that *fibromyalgia* causes sleep disturbances including sleep apnea. If you look at any symptoms list for fibromyalgia, you will find sleep disturbances including sleep apnea are one of the main symptoms. **However, here is the light-bulb moment: fibromyalgia does not cause sleep apnea. It is the other way around. Sleep apnea causes an oxygen lack (more on this later), which leads to fibromyalgia.** Because doctors feel that the sleep apnea is a result of fibromyalgia, the sleep apnea symptom is not treated. These doctors do not know that sleep apnea is the cause and that treating it will positively impact fibromyalgia.

What is the current theory on the cause of fibromyalgia?

There are many theories on the cause of fibromyalgia: genetic predisposition, auto immune, overactive nervous systems, nerve damage, hormonal imbalance, nutritional, toxicity, stress, physical trauma, poor sleep, and more. These suggested causes may be true for a small percent of fibromyalgia patients. However, I believe oxygen lack from sleep apnea is by far the most common cause.



HOW DOES OXYGEN LACK LEAD TO FIBROMYALGIA?

Concurrently with my uncovering that oxygen lack from sleep apnea is a main cause of fibromyalgia, I would also study how oxygen lack leads to the symptoms of fibromyalgia. What are the physiological mechanisms?

Oxygen is unique when compared to the other macronutrients. Our bodies can store water, proteins, carbohydrates, and fats, but we cannot store oxygen. We need a constant, ongoing, and optimal supply of oxygen.

The term Apnea is derived from the Greek, Apnoea - meaning without breath

Oxygen is used by the cells of our body for energy. It is released at the cellular level to produce energy in the process called “the citric acid cycle.” In the citric acid cycle, energy is created when ADP is transformed into ATP. This energy

is stored in ATP molecules and is used by the cells for three major uses. (1) Membrane transport, (2) protein synthesis, and (3) muscle contraction. “Regarding this third major use of muscle contraction: ATP is used to supply energy for special cells (muscle fibers) to perform mechanical work. Each contraction of a muscle fiber requires expenditure of tremendous quantities of ATP.”⁵

When we sleep, our bodies do not need as much energy for muscle contraction. As the body slows down, our breathing slows down as well. Blood flow (which brings the oxygen to the cells) is diverted from the muscles, bone, and skin, and is made more available to the brain and other vital organs. At rest the muscles use as little as 4 ml per min per 100 grams of blood while the vital organs use much more. In comparison, the brain uses 50 ml, the liver 95 ml, and the heart 70 ml.⁶ Thus during resting conditions the muscles are on the bottom of the “blood flow totem pole.” In

addition, the body is 40% muscle and thus affected significantly when energy (ATP storage) resources are low. As a result, when a person has sleep apnea (which often lasts much of the night) it leads to oxygen lack, which leads to the muscle being low on ATP (energy). When muscle cells are low on ATP, they do not have the energy to perform work. Thus, the muscles become exhausted, leading to muscle spasms, which are painful.

Sleep apnea's oxygen lack creates a double negative effect on the muscle system. The first is the damaging effects from the oxygen lack as described in the previous paragraph (muscle exhaustion). The second is a disruption in the sleep time healing process. Healing takes place as we sleep (oxygen is needed for the healing process and is used to produce energy of the cells and protein synthesis. Protein synthesis is the second major use of oxygen noted above). The body takes care of things like resolving inflammation and muscle spasm best at night when there is no competition for resources. This is why we sleep when we are sick; our bodies use this sleep time to fight the illness—whatever the illness. Especially at risk is the healing of the muscular system when someone has sleep apnea because the muscles are already exhausted from the sleep apnea. Thus an “oxygen lack exhausted muscle” that needs sleep time to heal is met with an “oxygen lack decrease in healing” (from decreased protein synthesis), and thus experiences a double negative effect and is further harmfully affected.

Everybody gets simple aches and pains that heal quickly. People with ongoing nightly oxygen lack get this two-punch effect and their simple aches and pains do not resolve. This is where the 18 tender points of fibromyalgia come from: simple aches and pains not resolving. So much of the pain with fibromyalgia comes from chronic muscle spasms not being able to heal each night. In other words, there is an ongoing re-aggravation of affected muscles. Additionally, these muscles are prone to injury during the daytime.

Beside the two-punch attack against the muscle system, what else is impaired by the oxygen lack caused by sleep apnea? The various symptoms of fibromyalgia: fatigue, mental fog, non-restorative sleep, restless leg, chronic fatigue, and even possible depression are among the results. Even though the body saves blood flow for the vital organs during sleep, during sleep apnea there still is not enough oxygen supply to the brain. (The brain is active at night and continues to need high levels of oxygen provided by the blood supply.) As a result, the brain gets low levels of oxygen combined with the high levels of carbon dioxide (more on carbon dioxide build-up below.) When a person has a more severe level of sleep apnea they may wake up sweating, have chest discomfort, and have a certain amount of anxiety. Additionally, there are other sleep apnea symptoms *not* associated with fibromyalgia. Even nighttime heart attacks may be triggered by sleep apnea,⁷ as well as increased risk of stroke.⁸

Not only is there a lack of oxygen with sleep apnea, but there is a build-up carbon dioxide (CO₂ - the chemical we expire with each breath). This can be demonstrated on patients who have a more severe level of sleep apnea. These patients can have an odd urine odor in middle of the night or first thing in the morning. This odor is likely carbon dioxide. When a person has sleep apnea, their lungs are not performing enough of their work. Not only are they not getting enough oxygen, but also, they are not breathing out enough carbon dioxide waste! Therefore, the carbon dioxide builds up in the blood and backs up in the various tissues/organs (including the brain). This is most likely where the fibro fog comes from, low levels of oxygen *and* high levels of carbon dioxide. In addition, the carbon dioxide that is not expired by the lungs stays in the blood stream and is filtered out by the kidneys (producing urine). In high enough concentrations (people with more severe sleep apnea), it will produce this odd urine odor immediately following a significant episode of

sleep apnea. (As a side note; this extra carbon dioxide in the blood may be inflammatory to our bodies.)

When I explain this oxygen lack concept to patients, I tell them: We are oxygen-based creatures. If you put your head in a bucket of water for six minutes, you will die! When you have sleep-time oxygen lack for multiple hours every night it greatly affects your health. This is why there are so many symptoms for sleep apnea and thus for fibromyalgia as well.

How prevalent is sleep apnea?

Obstructive sleep apnea is very common. Sleep apnea estimates are as high as 20% of the population for mild sleep apnea and 6% for moderate to severe.

A recent study concluded that 1 in 5 American adults have at least mild obstructive sleep apnea. That translates to 40 million people.

Approximately one-third of that number has moderate to severe obstructive sleep apnea. ⁹

I have found even mild sleep apnea is enough to cause the level of oxygen lack needed for muscles to go into chronic spasms, causing muscular symptoms of fibromyalgia.



OXYGEN LACK FIBROMYALGIA™

I call this type of fibromyalgia *oxygen lack fibromyalgia™*. This is a sub-category of fibromyalgia and is a new concept: the idea that ongoing sleep-time oxygen lack leads to musculoskeletal pain and the additional symptoms of fibromyalgia. The more severe the sleep apnea, the more severe the fibromyalgia symptomatology will be. However, even mild sleep apnea is enough to cause the level of oxygen lack needed for the development of *oxygen lack fibromyalgia*. (However, not all sleep apnea leads to chronic pain. This is discussed a few times throughout this book.)

Treating sleep apnea can be very tricky. Difficult solutions, expensive equipment and appliances, and low patient compliance lead to low percent of success in treating sleep apnea. As a result, I have come up with a comprehensive set of treatment options including steps aimed at raising patient compliance and thus success.

In most cases of sleep apnea, and thus *oxygen lack fibromyalgia*, the condition needs to be maintained for life. The less common *weak diaphragm* type caused by extreme forward head carriage can often be fixed permanently with a good therapy routine. Some people get full relief with weight loss for their nasal obstructions. However, most patients will need ongoing maintenance to continually relieve their sleep apnea, and thus their *oxygen lack fibromyalgia*.

Other health conditions that cause a decrease in oxygen being delivered to the tissues of the body may also contribute to fibromyalgia, especially if the person already has sleep apnea.

I once told a patient the seriousness of oxygen lack and sleep apnea. I gave the example of not breathing at all for six minutes and we would die. I then said that a decrease in the percent of oxygen we get at night has serious health consequences. She responded, "how come I haven't died." My answer made her jump in her seat. I told her that a significant percent of heart attacks and strokes take place during sleep and that many of these may be related to sleep apnea. She was stunned and rightfully worried. Oxygen lack and sleep apnea can have very serious health consequences.

Deprived stages of sleep and fibromyalgia

Much is said about fibromyalgia patients not obtaining the restful stage four of sleep. Not being able to reach and maintain the stages of sleep has various health consequences, including negatively affecting the brain and nervous system. Some of these consequences manifest themselves as symptoms of fibromyalgia, and may be a contributing cause of "fibro fog," and some may have no relation to fibromyalgia. My theory contends that with *oxygen lack fibromyalgia* patients, it is the lack of oxygen that is causing the body to not progress through the various stages of sleep. Once oxygen lack is correctly treated, the body will obtain a regular stream of oxygen. Then the various healings needed will begin to happen, including reaching the deeper stages of sleep. So not reaching stage four of sleep does not cause fibromyalgia; oxygen lack does. Solve the sleep apnea, and restful sleep should follow.

How does trauma lead to oxygen lack fibromyalgia?

There are a large number of people who report that their fibromyalgia started after a significant trauma. "Among doctors in private practice, many have reported over half of fibromyalgia patients attribute the onset of their symptoms to a traumatic event."¹⁰ When I first started working up my theories, I was not sure how trauma played into it.

Eventually I had a patient who had been in an auto accident, was in a lot of pain (as many accident victims are), but he did not heal as most of my other auto accident patients did. He stated that he had no chronic pain prior to his accident. However, he reported that he regularly snored at night (automatic sleep apnea) before and after his auto accident. Because he did not have ongoing pain prior to his accident, I did not think he had fibromyalgia and thus I did not test him for oxygen lack at first. However, as time when on and he continued to not make progress, I realized that he could very well now (after the trauma) have fibromyalgia causing him not to heal. (After testing, we learned that he did have significant sleep apnea.) That is when I realized how trauma causes *oxygen lack fibromyalgia*.

A person could have prior sleep apnea, which so far in their life had not led to ongoing muscular pain (not all sleep apnea leads to the musculoskeletal pain of fibromyalgia). However, their ongoing oxygen lack causes the muscles to be primed and ready for chronic spasms. They may already have some of the sleep apnea symptoms and not be attributing it to anything. Next, they experience a significant trauma. The trauma brings pain and muscle spasm as it would for anyone.

However, their muscles are vulnerable to developing chronic spasms from the ongoing oxygen lack; as a result, these new muscle spasms do not heal and turn chronic. Thus, the trauma is a trigger for the existing oxygen lack affected muscles to first develop spasms, and then chronically stay in spasm and manifest as the chronic widespread pain of fibromyalgia.

Does the math add up? Yes. There are estimated to be five million people in the United States who have fibromyalgia. Most of these are women. I feel that men have fibromyalgia just as much as women do, so I add another five million to my personal estimate. This brings the possible total of fibromyalgia patients to ten million people. It is also estimated that up to 20% of people in the United States has at least mild sleep apnea. This would be 60 million people. Not all people with sleep apnea develop fibromyalgia. However, we can see there are many sleep apnea patients who do not have musculoskeletal symptoms just waiting for a big trauma to injure their vulnerable musculoskeletal system and leave them with fibromyalgia.

Besides trauma in general, there is a specific type of injury that may lead to fibromyalgia. This is the whiplash type injury (most whiplash injuries occur in auto accidents, but any accident that whips your head and neck can cause whiplash). “Patients’ symptoms, physicians’ experiences, scientific publications, and ongoing medical research allow us to conclude that whiplash trauma probably leads to fibromyalgia.”¹¹ Whiplash often leads to a simple forward head carriage, and in some cases the head can move so far forward that patients develops extreme forward head carriage. This can lead to a weak or underperforming diaphragm and is the first of the three causes of *oxygen lack fibromyalgia* (more on all three causes throughout this book). This type of injury could lead to fibromyalgia with people with no prior sleep apnea. Additionally, more than just the neck is affected with an auto accident whiplash. Often much of the body is traumatized and this level of trauma can lead to the mechanism of developing fibromyalgia for those with existing sleep apnea as described above. So, whiplash trauma could provide two mechanisms to develop fibromyalgia: one with prior sleep apnea, and one without.

Why is fibromyalgia worse at high altitude?

Fibromyalgia patients report an increase of symptoms when they have been in higher altitude for a few days. This may be from at least two mechanisms. First: less atmospheric pressure on our body results in less pressure on the muscles. Muscles like pressure when they are in spasm. This is why people with muscular low back pain like wearing back braces. However, this mechanism would only account for a small increase and may be unappreciable in most patients. The second mechanism is much more likely the main cause: decreased oxygen concentration at higher altitude leads to decreased oxygen available each time we take a breath. This of course leads to increased oxygen lack all day long and compounds the effect of decrease airflow when one has sleep apnea.

Patients report that it takes a few days for the fibromyalgia symptoms to increase once they are at high altitude. This is because they need to sleep with these worse conditions for a few nights before the effect of the decreased oxygen will build up and hit their system, causing their fibromyalgia symptoms to increase.

Very high-altitude hikers get headaches and altitude sickness, but are often fine once they get back to lower altitude. This demonstrates how simply re-introducing oxygen does the trick!



“BUT I DON’T HAVE SLEEP APNEA”

I DO NOT HAVE SLEEP APNEA

Most of you reading this are saying to yourself, *I do not have sleep apnea* (manifest as “shallow breathing” and “stopped breathing” when asleep). I know this because most of my fibromyalgia patients say this. When the pulse oximeter test comes back positive, they are surprised to find they do have sleep apnea! Do you snore? - Automatic sleep apnea. Do you have fibro fog? – Sleep apnea. Tired during the day? – Sleep apnea. Sleep disturbances? – Sleep apnea. Pressure in your chest at night? – Sleep apnea (more on these later). With most patients, I can tell just by their symptoms that they have sleep apnea. These symptoms you are blaming on fibromyalgia are from sleep apnea, not the other way around.

The reason you do not realize you are “shallow breathing” or have “stopped breathing” episodes, is because you are asleep! It is important to realize that *sleeping* and *breathing when you sleep* are two different subjects. Another way to say this is that it’s not about not getting enough sleep; it’s about not getting enough oxygen! Therefore, you may sleep through the night okay, but not be breathing well during sleep.

It’s not about how much sleep you get; it’s
about how much oxygen you get.

Many people say they do not snore or gasp for air (“stopped breathing” episodes). This gasping for air may not add up to a lot of oxygen lack. However, it is the ongoing shallow breathing *that you will be unaware of* that does add up and deprives you of oxygen and does the harm.

As you read on, you will see that the first step of this process is to test for sleep apnea. (This does not require a full overnight sleep study at a sleep center, but is a partial sleep study and is simply done at your home.)

A word of caution: As stated elsewhere in this book, it is hard to solve sleep apnea. Read the entire book, as there are protocols, helps, and hints to help you achieve success. Always work with your doctor to treat sleep apnea.



WHAT DO I DO NEXT?

The first thing to do is to buy the full book. You will learn that you need an overnight pulse ox test to see if you have sleep apnea. This is a partial sleep study and is easily done at your home. You do not need to see a doctor and perform a full sleep study to do this. Next, the book discusses how to decide which type of sleep apnea you have. There are three main causes of sleep apnea and each one has a different treatment. You will learn how to interpret the results, initiate treatment and follow up, as well as when to go to the doctor and which type of doctor to see. How to accomplish all this and much more is discussed in the book.

If you simply go to your doctor and get checked for sleep apnea, you may not get the correct answers and treatment. Currently doctors are not looking for different causes of sleep apnea, they just use the CPAP on everyone. (Patients hate the CPAP's and won't use them.) However, I find only 35% have this type, and only some of these need the CPAP! There are other better solutions. 67% of patients have one of two other causes of sleep apnea and will not need a CPAP machine at all. Additionally, doctors only treat moderate to severe sleep apnea. If you have a milder presentation, they will tell you there is nothing wrong with you and your path to solve your fibromyalgia will come to a stop!

I would never tell someone not to go to their doctor if they suspect they have sleep apnea, so please go if you suspect it. However, realize they may not work it up well. You can do the suggestions in the book at the same time as seeing the MD. And I do strongly advise this. It takes a long time to get is a sleep study etc. most people will do my suggestions must faster while they are waiting for the medical workup to take place.

For many there is an additional condition to treat after they are successful in restoring their breathing. Until they treat this condition, their muscle pain will not go away! Your doctor will not know about this step.

Sleep apnea is not easy to treat because there are many causes and complications. Some of these require an involved set of treatments, and some are quite easy to address. In the book you will find a thorough treatment program for each cause. There is a checklist you can follow with information on how to overcome obstacles to treatment.

It took me three years to discover the cause of fibromyalgia as discussed above. I have spent five more years working with patients "in the trenches" discovering what works and how to accomplish it. This has been no small undertaking. Now I am trying to pass this information on to as many as I can.

If you have fibromyalgia, I strongly encourage you to buy the book and follow the recommendations. The concept of sleep apnea causing fibromyalgia is new and your doctor will not be aware of it and will not be prepared to treat it (I even discuss how to explain it to your doctors.)

You can purchase the full book clicking here at fibrosolved.com



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