Pharmacist Jake Nichols, comes forward to discuss his firsthand experience with prescription drug abuse and how he came out on the other side.
Not all addictions look alike, and similarly, there is not a one-size-fits-all treatment option to cure this chronic disease.

Addiction is a brain disease. The brain, which regulates behavior, choices and what makes us feel good, becomes addicted to alcohol use. No one who struggles with addiction fits into a box. Addiction treatment can be an individualized approach to recovery.

University of Florida treatment programs (Floridaovercome.com) offer a variety of options for recovering addicts, including counseling, medication management, and extended treatment. Not all addictions look alike, and similarly, there is not a one-size-fits-all treatment option to cure this chronic disease.

The high failure rate of short-term treatment is easy to understand when you realize that opioid addiction is a chronic, physical medical disease. It’s not like adult-onset diabetes or heart disease but rather exposure changes the brain, addiction works but cannot ensure recovery. Not all people have the same risks. Some are related to psychiatric illnesses but some are related to pain. Drugs often become self-medication.

Medical progress and treatment works but cannot cure addiction, it cannot cure the disease. In addiction treatment, there is nothing more important or critical in the long run, than motivation to change. It takes years for drugs to change the person, so they must be supported. It takes years for recovery to occur, so another drug is acquired, no longer drugs in users. Treatment can help separate craving from use. Work with impaired health professionals and find the treatment that recovery is difficult, involve time, energy, and work and the best outcomes are found when the treatment can be given for years. In impaired physicians, nationwide, treatment works and we expected that over 80 percent of the treated physicians can drug-free and back to work.

How can you support them? So, you or someone using drugs, suggest that they stop and go to a meeting. Suggest that we do not know who can use and who will stop and who will progress to addiction. It took nearly 500 years from when Christopher Columbus brought tobacco to our shores to recognize that tobacco caused addiction, cancer, heart disease and so on. It took even longer to realize the second and third-hand effects on the rest of us. Now, in examining the effects of tobacco and other drugs on the unborn, we see that early exposure can change risk of abuse and dependence. Some of us may be born with a high risk of alcohol or drug abuse, but some of the risk may not be due to genes per se but rather exposure change.

Here in Miami, we see patients who have a history of addiction decades ago. Scientists and professionals have helped us understand that drugs become addictive. Addiction, medically, is a chronic and relapsing disease without a specific cure. Prevention is the single most effective “treatment” but often ignored or misunderstood. Telling someone who has a mother or father who suffered from the disease of addiction to not smoke or drink, is ineffective. Prevention and treatment works but cannot cure the disease.

In addiction treatment, there is nothing more critical or important in the long run, than motivation to change. Our brains allow us to see where the drugs meet the brain in real time. Science has also helped the treat opioid addiction in the private office setting. A strong advocate of treating addiction as a disease of addiction, an evidence-based medicine, he also guides his patients to complementary psychosocial support. In your experience, how severe a problem is opioid dependence? For the past 15 years, I have been asked how severe a problem is opioid dependence? For the past 15 years, I have been asked how severe a problem is opioid dependence?

In my own practice here in Miami, we see patients from all walks of life who struggle with this medical disease. We treat adolescents, parents with children, high-achieving professionals and retirees. Most started out abusing prescription medications like oxycodone or hydrocodone, often using pills they got from family or friends. These are legal and approved by the FDA, people often did not realize they were addictive. Patients do not realize that misuse of prescription medications can be physically as damaging to their brains as abusing heroin.

Why do so many patients present with short-term “detoxes”? How do you help your patients avoid this cycle? Why do so many patients present with short-term “detoxes”? How do you help your patients avoid this cycle?

The high failure rate of short-term treatment is easy to understand when you realize that opioid addiction is a chronic, physical medical disease. It’s not like adult-onset diabetes or high blood pressure in the sense that, while the condition may become chronic, it becomes a long-term physical disease. After prolonged opioid use there are changes in the brain that may take a year or more to reverse.

How does medication help patients with opioid dependence issues? How does medication help patients with opioid dependence issues?

I use medication because it helps to manage the physical cravings that can be a sign of addiction. Thanks to Federal legislation—the Drug Addiction Treatment Act of 2000—it is now possible to treat opioid addiction in the privacy of a doctor’s office. Without the threat of physical cravings or opioid withdrawal, patients can focus on the other parts of their lives that need attention.

I have found that combining medication with long-term counseling support gives patients the best chance of regaining what they had lost to addiction.
My name is Jake Nichols, and I am a pharmacist in Massachusetts as well as a person in recovery from drug addiction. That might sound jarring—how could a well-educated medical professional have become addicted to drugs?—and at one time I would never have thought it possible. But it did happen to me, as it can happen to anyone. Here’s my story.

After graduating from the Massachusetts College of Pharmacy in 2000, I had moved into a fulfilling professional life, teaching at two universities and managing hospital clinical pharmacy programs. I knew that I was directly helping a diverse population of needy, low-income patients. I eventually moved on to new challenges and found myself working in managed care.

But financial constraints forced cutbacks, and my position was eliminated. Jobless, I became depressed and began abusing drugs heavily. I tested “on the edge” for over a year, even after finding another pharmacist position. Working alone most of the time, I found ample opportunity to steal drugs from my employer. I used amphetamines and then increasingly Vicodin, an opioid painkiller. I was caught when another pharmacist saw a faxed invoice and realized I was diverting drugs. My employer, the Board of Pharmacy, the DTA, and local as well as state police intervened, and I lost my professional license. It was quite humbling to find myself in a courtroom testifying as a judge of the charges against me.

At a residential facility I was treated with the medication Suboxone. It removed my cravings, and without the threat of opioid withdrawal I was able to begin focusing on the steps I needed to take to reclaim my life. I realized, oddly, that although addiction runs in my family, I treated my medical education to keep myself safe. But addiction is a chronic brain disease that needs a medical solution. Like diabetes or asthma, addiction is long-term and potentially life-threatening. I am extremely grateful for having been given the chance to redeem my life. I remain under the close supervision of the Board of Pharmacy. My wife was unaware of my addiction and suffered enormously when I was caught in my lies. We also faced severe financial difficulties as a result of the chaos my addiction caused, and for a time we feared foreclosure on our home. But she had the grace to continue to believe in me, and now we have a beautiful little boy.

I have a new calling in my life—to help break the wall of silence around the plague of drug addiction among medical professionals. This subject remains taboo, but it shouldn’t be. I know from personal experience that many healthcare professionals struggle with addiction but are afraid to ask for help. Here in Massachusetts I am active in trying to modernize the laws that govern addiction among pharmacists and nurses. I am also working to increase education about the medical nature of addiction in medical, nursing and pharmacy schools. One day, addiction will be recognized as the disease it is, patients will not be stigmatized, treatment will be readily available, and people in recovery will be applauded throughout our communities. For myself, I will continue to work towards that day.
By James C. Berman, M.D.

The medical nature of addiction

James C. Berman, M.D., University of Pennsylvania Health System has been a Board certified internist for over 25 years. Dr. Berman has also been certified since 1987 to treat addiction by the American Society of Addiction Medicine. He directs Penn Addiction Medicine at the University of Pennsylvania Health system.

To date, the medical community as a whole has lacked any meaningful understanding regarding addiction. Consequently, its treatment has been marginalized, relegated to the domain of non-medical entities. Within the past decade, however, the timeline work of relatively anonymous pioneering neuroscientists has established that addiction is a complex brain disease. Moreover, NIDA, under the dynamic stewardship of Nora Volkow, M.D., has championed the medical nature of addiction with an international voice that resonates throughout the medical community.

As the emphasis on evidence-based medicine for addiction has increased, it is incumbent upon physicians to generate and ultimately embrace the treatments and strategies derived from the evidence. Addiction, progressive, primary disease, characterized by relapse which, if left untreated or mismanaged, can and will result in death.

Interestingly, heart disease, lung disease, diabetes, and cancer are characterized in exactly the same way. Yet, unlike an accepted aspect of all other chronic diseases, is viewed with judgment, prejudice, and disdain when addiction is the disease. As physicians, the vast majority of us spend most of our professional lives treating or attempting to prevent relapses associated with chronic diseases. Let us hope that the burgeoning science of addiction coupled with evidence-based medicine will lead physicians to re-evaluate their responsibilities towards addicted patients. The disease of addiction, albeit with its unique individual nuances, is merely another spoke on the wheel of chronic diseases.

Unable to re-evaluate the hallmark of treatment for chronic diseases is pharmacotherapy. There is a robust literature supporting the efficacy of pharmacotherapy in the disease of addiction. Nonetheless, these medications are not a panacea. Rather they are marvelous tools, which can be extracted from a toolbox that continues to grow. Hence, pharmacotherapy does not eliminate the need for psychosocial support.

On the contrary, it magnifies the necessity for such non-medical support in order to maximize treatment success.

As we truly medicalize the disease of addiction, we continually recognize the need to tailor treatment to the individual.

Medication leads to demarginalization, which affords our patients the best care we can offer. Ultimately, as addiction treatment moves into mainstream medical practice, a team approach using various modalities, under the auspices of organized medicine, should be the standard of care for addicted patients.

Working with your community pharmacist to prevent drug abuse

When used as directed, prescription medicine can play a critical role in treating a range of conditions. With the power of prescription medicines comes great responsibility for their use and storage.

A new campaign, Safeguard My Meds (safeguardmymeds.org), offers tools and resources to help keep medicines safe, including a variety of downloadable print, video and online materials and tips. For instance, some tips suggest maintaining a list of medicines at home, keeping them in a locked storage container in a cool, dry place, keeping them out of the reach of children and pets, and never sharing medicines with others.

Protecting your medicines

A national survey shows that while an overwhelming majority of Americans say that it is extremely or very important to safely store and dispose of prescription medicine, many may not be doing everything they can to protect their medicines. Most of those surveyed indicated that they keep prescription medicine in an unlocked cabinet, close to drawers in their homes. Moreover, respondents frequently said they store prescription medicine in the bathroom or kitchen, two areas in which temperatures and conditions could compromise a drug’s integrity and are often exposed and accessed by anyone entering the home.

There can be dangerous consequences when prescriptions aren’t stored securely, particularly for young people. According to the U.S. Office of National Drug Control Policy, for young people ages 12-17, prescriptions have become the second most abused illegal drug (behind marijuana) with controlled substances playing a major role.

In fact, one in five U.S. high school students says they have abused a prescription medicine at least once in their lives. A majority (76 percent) of those young people say they are acquiring those drugs from a friend or relative, not the street corner as once thought.

Storing and disposing

As medication experts, community pharmacists can play a major role in reversing this trend. Talk to your community pharmacist about how to store, use and dispose of prescription or over-the-counter medicine properly. When medications are no longer needed, look for local disposal options at community pharmacies nationwide participating in the voluntary Dispose My Medications program.

As of September 2011, nearly 1,400 independent community pharmacies from 47 states are listed on disposemymeds.org and have returned an estimated 50,000 pounds of drugs for disposal. These pharmacies help consumers properly dispose of unused and unwanted drugs, often at no cost. There may be certain restrictions on what can be returned (in particular, the pharmacist cannot accept controlled substances for disposal), so patients should always check with their local pharmacist.

Your community pharmacist looks forward to talking to you soon.

The National Community Pharmacists Association (NCPA®) represents the interests of America’s community pharmacists, including the owners of more than 2,000 independent community pharmacies, pharmacy franchises, and chains. Together they represent a $93 billion health-care marketplace, have more than 315,000 employees including 21,400 pharmacists, and dispense over 47 percent of all retail prescriptions. To learn more, visit ncpa.org or read NCPA’s blog, The Dose, at ncpa.ne wspapers.com.
Learn the latest thinking

Ask about medical treatment

Did you know that dependence on prescription pain medicines or heroin is a chronic disease?

Dependence on opioids (addiction to prescription pain medicines or heroin) is a long-term brain disease. Because opioid dependence is a medical condition, it can be treated effectively with medication combined with counseling and support. Visit suboxone.com for a quiz that can help you have a discussion with your doctor.

SUBOXONE® (buprenorphine and naloxone) Sublingual Film (CIII) is indicated for maintenance treatment of opioid dependence as part of a complete treatment plan to include counseling and psychosocial support. Treatment should be initiated under the direction of physicians qualified under the Drug Addiction Treatment Act.

Important Safety Information

Do not take SUBOXONE Sublingual Film if you are hypersensitive to buprenorphine or naloxone. SUBOXONE Sublingual Film can be abused in a manner similar to other opioids, legal or illicit. Chronic use of buprenorphine can cause physical dependence. SUBOXONE contains an opioid that can cause physical dependence. Do not stop taking SUBOXONE without talking to your doctor. You could become sick with uncomfortable withdrawal signs and symptoms because your body has become used to this medicine.

SUBOXONE Sublingual Film can cause serious life-threatening breathing problems, overdose, and death, particularly when taken by the intravenous (IV) route in combination with benzodiazepines or other central nervous system (CNS) depressants (ie, sedatives, tranquilizers, or alcohol). It is extremely dangerous to self-administer nonprescribed benzodiazepines or other CNS depressants while taking SUBOXONE Sublingual Film.

Liver function should be monitored before and during treatment.

Keep SUBOXONE Sublingual Film out of the sight and reach of children. Children who take SUBOXONE Sublingual Film can have severe, possibly fatal, breathing problems.

Do not inject or take SUBOXONE Sublingual Film before the effects of opioids (eg, heroin, hydrocodone, methadone, morphine, oxycodone) have subsided as you may experience withdrawal symptoms.

Neonatal withdrawal has been reported. Use of SUBOXONE Sublingual Film in pregnant women or during breast-feeding should only be considered if the potential benefit justifies the potential risk. Caution should be exercised when driving vehicles or operating hazardous machinery, especially during dose adjustment as patients may experience drowsiness and slow reaction time. Adverse events commonly observed with the sublingual administration of SUBOXONE Sublingual Film are numb mouth, sore tongue, redness of the mouth, headache, nausea, vomiting, sweating, constipation, signs and symptoms of withdrawal, insomnia, pain, swelling of the limbs, disturbance of attention, palpitations, and blurred vision.

Cytolytic hepatitis, jaundice, and allergic reactions, including anaphylactic shock, have been reported. This is not a complete list of potential adverse events associated with SUBOXONE Sublingual Film. Please see full Prescribing Information for a complete list.

To report an adverse event associated with taking SUBOXONE Sublingual Film, please call 1-877-782-6966. You are encouraged to report adverse events of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see full Product Information on the following pages.

SUBOXONE® is a registered trademark of Reckitt Benckiser Healthcare (UK) Ltd.

SUBOXONE® (buprenorphine and naloxone) Sublingual Film treatment

Visit suboxone.com to download a copay card.

Exclusive savings available with SUBOXONE Film treatment

For more information about living with opioid dependence, the importance of counseling, and treatment with SUBOXONE Film, visit suboxone.com.

Ask about SUBOXONE® (buprenorphine and naloxone) Sublingual Film (CIII), a proven medical treatment available in the privacy of a doctor’s office.

SUBOXONE Film includes a medication called buprenorphine, which has been shown to help people stay in treatment and reduce cravings.

Take the first step—find a certified doctor and ask about SUBOXONE Film.

To find a doctor certified to prescribe SUBOXONE Film, visit suboxone.com.
11 DESCRIPTION
SUBNORMAL (hypothyroidism and subclinical) is a form of goiter, implying, with a large dose supplying the patient’s needs. It is based on the fact that thyroid hormone production in the body is maintained within the normal range by the thyroid gland. The primary site of action of levothyroxine sodium is in the hypothalamic-pituitary-thyroid axis. It is important to note that the treatment of hypothyroidism is aimed at restoring the hypothalamic-pituitary-thyroid axis to normal. Levothyroxine sodium has also been shown to improve the symptoms of depression in patients with hypothyroidism. This is because it increases the production of thyroid hormones, which are known to have beneficial effects on mood and cognitive function. It is also important to note that levothyroxine sodium may cause hypothyroidism in patients with a history of hypothyroidism. In these patients, the dose of levothyroxine sodium should be gradually increased to ensure the proper functioning of the thyroid gland. Levothyroxine sodium is also used in the treatment of thyroiditis, which is an inflammation of the thyroid gland. It is important to note that levothyroxine sodium is not effective in the treatment of thyroiditis.

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12 CLINICAL PHARMACOLOGY
12.1 Mechanism of Action
Levothyroxine sodium is used to treat hypothyroidism. It is a synthetic analog of thyroxine, which is the main hormone produced by the thyroid gland. Levothyroxine sodium is administered orally and it is converted to thyroxine in the liver. Thyroxine is then transported to the peripheral tissues, where it is converted to reverse triiodothyronine (rT3) and reverse thyroxine (rT4).

12.2 Pharmacokinetics
Levothyroxine sodium is well absorbed orally. It is rapidly converted to thyroxine in the liver. The half-life of thyroxine is approximately 7 days. Levothyroxine sodium is not extensively bound to plasma proteins and has a volume of distribution of approximately 40 liters. It is excreted in the urine and feces.

12.3 Metabolism
Levothyroxine sodium is metabolized in the liver to 3,5-diodothyronine and 3,5,3'-diodothyronine. It is then further metabolized to 3,5,3'-diodothyronine and 3,5,3',5'-tetraiodothyronine. These metabolites are then excreted in the urine.

13.1 Contraindications
Levothyroxine sodium is contraindicated in patients with a history of hypothyroidism or in patients who are taking other thyroid hormones.

13.2 Warnings and Precautions
Levothyroxine sodium should be used with caution in patients with a history of cardiac disease or in patients who are taking other medications that may affect thyroid function.

13.3 Adverse Reactions
The most common adverse reactions of levothyroxine sodium are fatigue, weakness, and weight gain. Other adverse reactions may include headache, dizziness, and irregular menstrual cycles.

Malignancy
The occurrence of malignancy is very rare in patients treated with levothyroxine sodium. However, it is important to note that levothyroxine sodium may increase the risk of certain types of cancer. It is recommended that patients with a history of malignancy be monitored closely while on levothyroxine sodium.

Drug-drug interactions
CYP3A4 inhibitors and substrates reduce levothyroxine sodium levels by inducing CYP3A4 and increasing thyroid hormone metabolism. The use of CYP3A4 inhibitors or metabolizing substrates is therefore contraindicated in patients receiving levothyroxine sodium. CYP3A4 inhibitors or metabolizing substrates that reduce levothyroxine sodium levels are not recommended in patients receiving levothyroxine sodium. However, levothyroxine sodium levels may be reduced by 10% to 30% in patients receiving CYP3A4 inhibitors or metabolizing substrates.

17 PATIENT EDUCATION/INFORMATION
Before initiating treatment with levothyroxine sodium, the patient should be informed of the benefits and risks of treatment. The patient should be instructed to take the medication exactly as prescribed and to report any adverse reactions to the healthcare provider.

Before initiating treatment with levothyroxine sodium, the patient should be informed of the benefits and risks of treatment. The patient should be instructed to take the medication exactly as prescribed and to report any adverse reactions to the healthcare provider.

17.1 Disposal of Unused Levothyroxine Sodium
If you have any questions about this sheet, contact your healthcare provider. You can also visit the FDA website at www.fda.gov for more information. The information on this sheet is based on the label and package insert of the drug. This sheet is intended for use by healthcare providers and is not intended for use by patients.