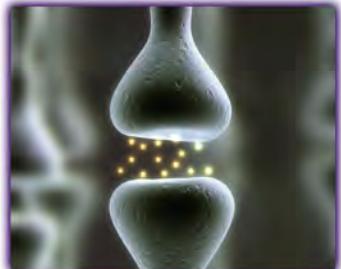
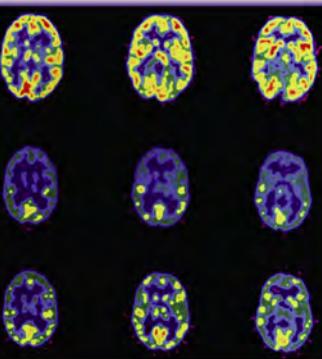


## Understanding addiction.

**How opioids work in the brain:** Specialized receptors in the brain accept opioid molecules and, through a biochemical process, release dopamine – a chemical that makes people feel good. Dopamine is also released naturally through exercise, sex, or eating a good meal. To feel ‘normal’, a certain amount of opioid receptors always need to be occupied. In a normal healthy person, the body regulates this naturally by manufacturing the right amount of opioid-like chemicals. Endorphins are one example. The body strives for a state of balance to avoid feeling too good or too bad. High doses of opioid drugs, however, can flood the receptors causing a very high release of dopamine, much more than could ever be released naturally, causing feelings of extreme euphoria. The body responds with a decreased sensitivity to opioids.



**Tolerance, physical dependence, addiction:** As a person takes opioids for an extended period of time, the opioid receptors become less sensitive as the body tries to maintain normal dopamine levels. This is called tolerance. As a result, the person needs to continually increase the amount of opioids to get the same level of opioid effect.



In early tolerance, if opioids are abruptly discontinued, the body can manufacture enough natural opioid-like chemicals to compensate, thus preventing the person from feeling bad. As tolerance increases, the body reaches a point where it can no longer manufacture enough natural opioids to compensate for the increased need of the less sensitive receptors. When this happens, the body has become dependent on the external source of opioids to feel normal. This stage is appropriately called physical dependence, also defined as a physiological state

of adaptation to a substance, the absence of which produces symptoms and signs of withdrawal.

Both tolerance and physical dependence are normal physiology, and alone, not reasons for treatment. Both can be resolved with a slow taper off of the opioids.

**Addiction** is something different and only develops in a fraction of the people who take opioids. Addiction is a behavioral disorder caused by specific brain adaptations and characterized by the repeated, compulsive seeking and/or use of a substance despite adverse social, psychological, and/or physical consequences. It is the consequences of the addictive behavior that ruins lives and the reason people seek treatment. Addiction is often (but not always, as with an addiction to gambling) accompanied by tolerance, physical dependence, and withdrawal syndrome.

## Opioid addiction is a brain disease.

Opioid addiction develops from fundamental, long-term changes to the structure and functioning of the brain. Scientists classify addiction as a chronic disease because areas of the brain are altered from the normal healthy state in long-lasting ways. These are physical changes to the brain which influence behavior – not caused by poor morals, controlled by willpower, nor cured by good advice. It's a disease as is diabetes or cancer, and it is treatable.

## The Drug Addiction Treatment Act of 2000.

DATA 2000 enables qualified physicians to prescribe and/or dispense opioid medications for the purpose of treating opioid addiction from an office-based practice. This presents a very desirable treatment option for those who are unwilling or unable to seek help from stigmatizing drug treatment clinics. One medication doctors may now prescribe is buprenorphine.



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# Buprenorphine.

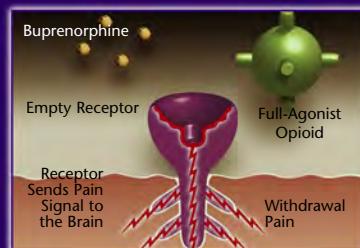
A treatment for opioid addiction in the privacy of a doctor's office.



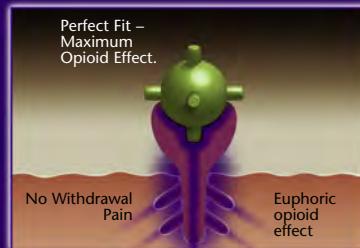
## The National Alliance of Advocates for Buprenorphine Treatment



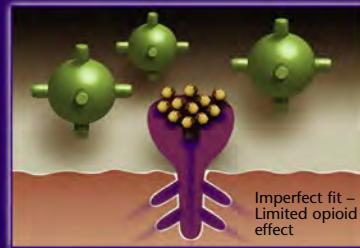
## How it works



amount of opioid receptors activated, the discomfort. This happens in withdrawal.



the point of an uncontrollable compulsion (addiction), and the cycle repeats and escalates.



existing opioids and blocks others from attaching. As a partial agonist, the buprenorphine has a limited opioid effect, enough to stop withdrawal but not enough to cause intense euphoria.



*The above illustrations are for educational purposes and do not accurately represent the true appearance.*

## What is Buprenorphine?

*At the correct dose, buprenorphine may suppress cravings and withdrawal symptoms and block the effects of other opioids.*

Buprenorphine ('bū•pre'nōr•fēn) is not new. It was first patented in 1969 and has been used in the U.S. to treat pain and in Europe to treat pain and opioid addiction for decades. Buprenorphine is a semi-synthetic opioid and is a *partial agonist*.

- *Opioid Agonists* are drugs that cause an opioid effect; i.e., heroin, oxycodone, hydrocodone, and methadone.
  - *Opioid Antagonists* are drugs that block and reverse the effects of agonist drugs. Narcan® is an antagonist and is used to reverse heroin overdoses.

Buprenorphine can act as both an agonist and antagonist. It attaches to the opioid receptors but only activates them partially, enough to suppress withdrawal and cravings, but not enough to cause extreme euphoria in opioid-tolerant patients. When all available receptors are occupied with buprenorphine, no additional opioid effect is produced by taking more. This is called the 'ceiling effect'. The antagonist property of the medication expels, replaces and blocks other opioids from the opioid receptor sites. Therefore, if the patient decides to misuse opioid drugs after taking buprenorphine, the effects can be blocked, depending on dosage. Alternately, if buprenorphine is taken too soon after other opioids, by an opioid-physically dependent patient, the buprenorphine can precipitate withdrawal. The ceiling effect, blocking ability, and possibility of precipitating withdrawal contribute to buprenorphine having a favorable safety profile and helps lower the risk of overdose and misuse.

## Buprenorphine(Bup) and Buprenorphine/Naloxone(Bup/Nx) combination

In October 2002 the FDA approved the first two prescription Buprenorphine medications for the treatment of opioid addiction; Subutex®\* (buprenorphine) and Suboxone®\* (buprenorphine/naloxone). Since 2009 the FDA approved generic Bup and Bup/Nx sublingual

tablets, the brand-name Bup/Nx sublingual tablet Zubsol®\* and the Bup/Nx buccal film Bunavail™\*. Both Suboxone and Subutex tablets were discontinued and replaced with Suboxone Film® – a Bup/Nx sublingual film.

The purpose for the addition of naloxone is to reduce the risk of misuse by injection. If the Bup/Nx combination is injected, the naloxone will help cause immediate withdrawal symptoms in opioid-physically dependent people. However, naloxone is poorly absorbed sublingually. Therefore, when taken as directed, very little naloxone enters the blood. Normally, patients are unaffected by the presence of it, and it is considered clinically insignificant.

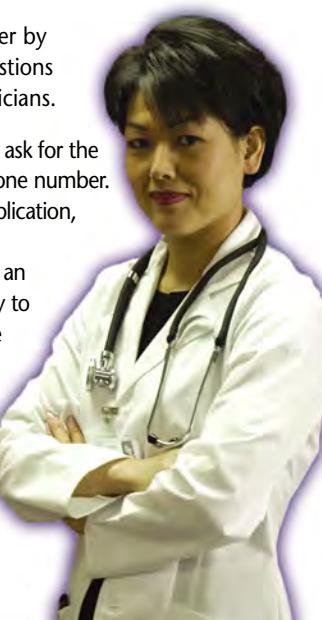
## How do I find treatment?

Not all doctors are qualified to prescribe buprenorphine for opioid addiction. S/he must become certified. Once certified to prescribe, the law restricts physicians to only helping 30 patients, at any one time, for the first year, and 100-patients thereafter for physicians who have been certified for one year or longer. This can make treatment difficult to find.

**TreatmentMatch.org**, a free-of-charge online service of NAABT, Inc. available 24/7, allows patients to reach out for help anytime and with complete privacy. It serves as a non-intimidating first step for those seeking treatment.

**How it works:** Patients register by answering a short list of questions to help match them to physicians.

TreatmentMatch.org does not ask for the patient's name, address or phone number. After a patient submits the application, alert emails instantly go out to participating physicians. Once an area physician has the capacity to treat an additional patient, the TreatmentMatch.org system allows them to contact the patient confidentially by email to discuss treatment availability. Counselors or advocates can register on behalf of patients without computer access.



## How long should buprenorphine treatment last?

Opioid addiction is a manifestation of brain changes resulting from chronic opioid use and misuse. The patient's struggle for recovery is in great part a struggle to overcome the effects of these changes. Brain adaptations take time to develop and take time to reverse. Patients should remain in treatment long enough to reverse the brain changes to the extent possible and learn coping mechanisms for what cannot be reversed. This is accomplished through a deliberate reconditioning effort. Six months to a year is not an unusual treatment timeframe, but longer treatment may be required.

## What is NAABT, Inc.?

**The National Alliance of Advocates for Buprenorphine Treatment (NAABT) is a 501(c)3 non-profit organization with the mission to:**

- Educate the public about the disease of opioid addiction and the buprenorphine treatment option.
  - Help reduce the stigma and discrimination associated with patients with addiction disorders.
  - Serve as a conduit connecting patients in need of treatment to treatment providers.

The naabt.org website has information on addiction and the buprenorphine treatment option, along with links to an online support community.



**DISCLAIMER:** Information contained in this brochure is not intended to substitute for the expertise and advice of your physician, counselor, pharmacist or other healthcare professional. It should not be interpreted as a claim that use of the treatment is safe, appropriate or effective for you. It is entirely your responsibility to consult your healthcare professional before using any treatment.

\*Suboxone®, Subutex®, Zubsolv® and Bunavail™ are trade names. NAABT, Inc. is not affiliated with any pharmaceutical manufacturer. See [www.naabt.org/about\\_us.cfm](http://www.naabt.org/about_us.cfm) for details. ©2015 NAABT, Inc. 04/15 25