Patient Guide: MAINTENANCE AND DISCONTINUATION
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OVERVIEW

After you have started taking buprenorphine and the best dose is established for you, you'll continue to take buprenorphine and see your provider regularly. This phase of treatment is called “Maintenance.”

- The reason that most people continue buprenorphine treatment indefinitely
- What will happen at office visits throughout the maintenance phase of buprenorphine treatment
- How buprenorphine maintenance treatment is modified if you are being treated for pain or having substance use problems
- How to avoid and respond to buprenorphine or other opioid overdose
- What happens if you do stop taking buprenorphine
**MAINTENANCE TREATMENT PHASE**

**Maintenance On Buprenorphine**

Many patients would do best if maintained on their stabilized dose of buprenorphine for years, due to a high rate of relapse when buprenorphine is discontinued. Alternatively, buprenorphine can be discontinued, although there are clear risks in addition to the benefits of discontinuation.

**Maintenance Schedule**

Patients taking buprenorphine are often seen weekly in the first month after an effective dose is established (or more frequently if risk is involved).

Once you become stable and your assessment results are favorable, providers may schedule maintenance once a month. You will still need to see your provider regularly so they can monitor your treatment success. For example, they may check for cravings for opioids, adherence to psychosocial therapies, and conduct periodic lab testing.

**Typical Maintenance Period**

The length of the maintenance period is long-term or indefinite for the majority of patients in order to prevent relapse. Patients can be maintained at a 12-16 mg daily dose (generic sublingual tablets or the equivalent of other formulations), as long as they are comfortable and happy with treatment. Some patients may require slight dose adjustments. Longstanding changes to the brain caused by chronic opioid use that produces cravings for opioids and compulsions contribute to this effect.

Routine discontinuation of buprenorphine-assisted treatment is not supported by the available evidence. Research comparing maintenance with a taper after detoxification has shown that long-term maintenance is superior to tapering concerning retention and rate of relapse to opioid use. In fact, tapering and then quitting buprenorphine is associated with a high relapse rate. For example, in one study, only 8.6% of patients tapered were still abstinent at 8 weeks post taper. A minority of patients can be weaned off buprenorphine successfully. Patients who had a longer history of substance abuse before treatment are at greater risk of relapse when discontinuing treatment.
GENERAL MAINTENANCE GUIDELINES

Seeing your provider regularly throughout maintenance helps prevent relapse. At these typically monthly visits, providers typically assess progress toward treatment goals, confidence in staying abstinent, compliance with the treatment, and signs of relapse. Even patients with a buprenorphine implant, which only needs to be replaced every 6 months, still benefit from monthly monitoring\(^1\).

The following are part of maintenance period assessment.

**Behavioral Assessment**

Providers may assess your psychosocial status and increase supports as needed because stability is important for continued abstinence. Signs of stability include:

- Keeping appointments and otherwise engaging in treatment
- Adhering to the treatment agreement
- Having psychosocial stability and support systems
- Participating in recommended professional counseling and support services
- Strong alliance with the provider

**Abstinence From Opioids Or Relapse, Use Of Other Drugs And Alcohol**

Providers may evaluate your substance use by:

- Urine toxicology, screened weekly for first 2 months (most likely time they are going to relapse) and then randomly, nearly monthly
- Self-report substance screening tool, such as the NIDA Quick Screen
- Prescription Drug Monitoring program—checked regularly
- Pill count/dose reconciliation
- Physical consequences of drug use

**Medical Evaluation**

Medical evaluations at monthly office visits may include:

- Pregnancy tests and a request to be notified if a patient believes she is pregnant.
- Conduct liver function tests at 6 months, if the initial test was abnormal, or if you have liver disease.
- Review whether you are experiencing side effects from buprenorphine.

**Addressing Problems Identified At Monthly Visits**

Problematic results of evaluations need to be addressed. For many patients, more treatment structure is beneficial, such as more frequent appointments or participation in counseling. When evaluating results, providers may consider whether the patient is functioning well in daily life, or at least better than at intake.

Problematic results of evaluations need to be addressed. Not adhering to treatment does not necessarily mean medication must be stopped. For many patients, more treatment structure is beneficial, such as more frequent appointments or participation in counseling. Or if pill counts are off, the provider may reduce the supply prescribed at one time.

When severe problems are identified, a higher level of care than office-based treatment may be indicated.
RELAPSE PREVENTION

Taking the following steps can help you avoid relapse:

- Identify and avoid cues that are likely to tempt you to relapse
- Learn skills in coping with negative emotional states (for example, through cognitive behavioral therapy)
- Lead a balanced lifestyle
- Report cravings which may mean you are under-medicated
- Develop a plan for lapses – that is episodes of using once or twice, to avoid a complete relapse
- Develop a support system, which can be families or more formal supports, such as 12 step programs

Avoid Factors That Commonly Contribute To Relapse

- Inability to manage stress or negative emotional states (most common)
- Interpersonal conflicts with family or others
- Poor adherence to the treatment regimen
- Negative thinking
- Insufficient motivation to change
MAINTENANCE DOSE

Your dose for maintenance will have been set during induction and rarely needs to be increased or decreased. You should have no withdrawal and no cravings at your maintenance dose.

- The daily dose during the maintenance period is between 8-32 mg. At first, your provider may only prescribe a week’s medication at a time. With signs of successful treatment, your provider may start prescribing a 30-day supply of your medication.
- Doses for implants or injectables are determined by the product. Implants are replaced at 6 months. The long-acting injection formulation is given monthly.

If Dosage Is Too Low

If withdrawal symptoms are experienced for a 24-hour dosing interval, the dose may need to be increased. This is usually done in small increments with around 5 days between dose adjustments. The following reasons may lead to the need for a dose change:

- Other prescriptions (starting, stopping, or dose change)
- Pregnancy
- Menopause
- Liver disease
- Weight change
- Switch to a more efficiently absorbed buprenorphine formulation
COUNSELING AND PSYCHOSOCIAL SUPPORT

Counseling
Getting counseling while taking buprenorphine improves chances of treatment success for many patients. Counseling should begin early in buprenorphine treatment.

Counseling can help your treatment in the following ways:
- Better engagement in treatment
- Improved attitudes and behaviors related to the substance use problem
- Improved health-related life skills
- Staying in treatment longer

Forms of counseling that are considered effective with patients in buprenorphine treatment include:
- Cognitive-behavioral therapy (CBT)
- Contingency management
- Relapse prevention
- Motivational interviewing

Psychosocial Treatment For Opioid Use Disorder
The recommendation is for:
- Assessment of psychosocial needs
- Counseling
  - Start early during buprenorphine treatment and weekly at first
  - May be individual and/or group
- Participation in Twelve-Step Programs, such as Narcotics Anonymous, Alcoholics Anonymous, or Dual Recovery Anonymous (some groups, having a zero drug policy, may not welcome participation by people who are taking buprenorphine)
- Deriving as much benefit as possible from family support systems or equivalent
- Community-based services referrals
- For patients who suffer from co-occurring depression and/or anxiety, providers may prescribe medication or refer for treatment

Counseling For Substance Use Disorders
The following forms of therapy are effective for substance use disorders:

Cognitive-Behavioral Therapy
Cognitive-Behavioral Therapy (CBT) teaches you to identify and change thought and behavior patterns through self-monitoring and to cope with them as they arise to decrease substance use. CBT increases long-term treatment success and improves mental health outcomes.
Contingency Management And Community Reinforcement Approach
In Contingency Management, positive reinforcement is given for positive behavior change\textsuperscript{15,16}. Positive behavior, such as participation in therapy sessions or having a negative urine drug test, is rewarded with vouchers that can be exchanged for desired objects, goods, or activities.

Motivational Enhancement Therapy
Motivational Enhancement Therapy (MET) supports patients who are uncertain about quitting substance use\textsuperscript{15,16}. Participating patients develop awareness of how their actions and goals are misaligned, which often increases their motivation to change their behaviors to meet their goals. MET uses empathy and support rather than confrontational tactics to promote change.

Further Evidence-Based Counseling
Family Therapies
Involving your family in therapy has the potential to help enhance your psychosocial support, which can improve your treatment outcome. Family therapies engage family members and friends to help support the patient's recovery and long-term abstinence.

- Family Behavior Therapy (FBT) looks at not only the substance use, but also surrounding family issues that may contribute, such as conflicts in the home or mental disorders in the family\textsuperscript{15,16}. FBT helps the patient set goals, develop skills, eliminate or change factors that might prevent treatment success\textsuperscript{15,16}.
- Behavioral Couples Therapy (BCT) involves both patient and their spouse. It includes the patient making a "daily sobriety contract" and the spouse supporting this commitment, giving the patient some accountability\textsuperscript{15,16}. The couple also learns effective communication and how to become involved in positive social activities that are substance-free\textsuperscript{15,16}. In some cases, a partner may support the old, addicted lifestyle and have difficulty supporting the patient's change to sobriety. Couples and individual counseling often have this issue; it sometimes results in relationships ending.

The Matrix Model
The Matrix Model combines multiple evidence-based practices (family and group therapy, relapse prevention, self-help, reduction of other risky behaviors, and drug education) in a coordinated, sequential approach\textsuperscript{15,16}. The treatment centers around group therapy (3 times a week for 16 weeks) which promotes social support, individual counseling, cognitive behavior therapy, family education, and urine drug testing to achieve the participating patient's overall goal of abstinence\textsuperscript{15,16}.

Ongoing Assessment Of Psychosocial Issues
Providers may continue to address psychosocial issues that were identified during the initial phases of treatment and help identify any new issues. Family support and structured time in pro-social activities will continue to be important.

Your provider may modify your addiction treatment structure and agreements as well as treatments/referrals for comorbidities, based on these assessments. If you are not making progress toward treatment goals, you may be referred to more intensive forms of behavioral and/or substance use treatment. Additional counseling and social supports are likely to help if you are dealing with employment problems, financial issues, or legal consequences of drug use.
Other Supports When Formal Counseling Is Not An Option
If counseling is not an option, some of the following supports may benefit patients, although they are not considered a substitute for counseling:

- Nurse check-ins may benefit patients who are unable to participate in counseling
- Mutual help programs, such as 12-step programs

Technology-Supported Care

Treatment Technology
Emerging technologies have made it possible to support patient treatment inside the office and expand the exchange of information outside of office visits:

- Telehealth delivery systems, such as electronic health records (EHR), allow for the transfer of patient information between providers, creating a more coordinated care approach for total health.
- Patient portals allow for web-based delivery of information.
- Mobile apps that can be used for patient education are readily available wherever the patient uses a mobile device and can be used to provide patient education.
- Telemedicine provides remote clinical services to patients through the use of two-way, real-time interactions, such as through video conference-calling. It allows patients to receive diagnosis and care for a number of ailments when they are unable to get to the medical office physically.

Electronic Assessments
Electronic assessments can help aid in early intervention for substance abuse, and also help you with your overall addiction treatment needs. Studies show that patients are more likely to disclose substance use within an online/digital setting rather than in face-to-face assessments. Studies have also demonstrated that web-based, evidence-based assessments are effective in determining levels of substance use and identifying those who may benefit from treatment. These types of assessments can be utilized for early interventions, which will improve treatment outcomes for those who would benefit from addiction support. NIDA has developed one such online screening tool.

Electronic Interventions
Electronic interventions can be utilized to support and extend care outside the office setting. Ongoing electronic interventions, such as automatic motivational calls to patients with substance use issues, may help them to decrease their substance use over time and be more encouraged to work towards continued overall abstinence.

To find one of the many apps available that support recovery, search your mobile app store for terms such as "substance abuse recovery apps" or "addiction apps."

Recovery Support Services And Mutual Support
Recovery support programs and organizations and mutual support groups are an essential resource for successful and sustained recovery. Long-term participation is important because significant risk of relapse continues even after a couple of years of recovery.
Recovery Support Services

Recovery support services are "the collection of community services that can provide emotional and practical support for continuing remission as well as daily structure and rewarding alternatives to substance use"16. These services help individuals in recovery acquire resources that will help them stay in recovery, such as better jobs, education, social opportunities, healthcare, and general well-being. In addition to this support, ongoing monitoring and early re-introduction to treatment are often additional goals of these services. Recovery support services are found in various places including schools, health care systems, housing systems, and other community settings. Specific recovery support services include16:

- **Recovery Coaching:** Helps individuals being discharged from treatment to connect with community services and resources as well as to overcome barriers or problems that might interfere with continued recovery.

- **Recovery Housing:** Provides a substance-free environment in which to recover as well as mutual support. Research on at least two such programs has shown improved long-term recovery rates.

- **Recovery Management:** Follows a protocol to monitor individuals during recovery long term. May involve in-person checkups or telephone case monitoring.

- **Recovery Community Centers:** Often peer-led, recovery-focused. May provide any of the above recovery support services, 12-step meetings, education, social events, and access to resources that support recovery.

**Mutual Support Groups**

Mutual support groups, such as Narcotics Anonymous (NA), are a source of psychosocial support that many patients find helpful. NA shares many of Alcoholics Anonymous' (AA's) features, including a social fellowship and an adherence to the 12 steps or actions as the basic road map to spiritual recovery and abstinence. Like AA, NA is an independent, self-supporting, group-based, and member-run, with no ties to or affiliation with other existing organizations. 12-step groups16:

- Have a spiritual underpinning
- Focus on a goal of abstinence
- Accept one's powerlessness over the addictive substance
- Support public confession of addiction
- Emphasize members' anonymity (first names only)
- Are free of charge

The typical forum consists of member-run group meetings where speakers and other group members explore the nature of addiction, the harm it has caused self and others, and the techniques for achieving and maintaining abstinence. Daily meeting attendance is encouraged during the initial 90-day induction period. Outside the meetings, members work through the 12 steps. NA provides group support for staying drug-free through testimonials, role modeling at group meetings, and sponsorship, in which members with a year or more of abstinence provide 24-hour support and encouragement to new members17.

Secular organizations for drug-free living exist in many communities and provide self-help group alternatives for patients who prefer an approach free of NA's spiritual features.
MONITORING ADHERENCE AND EFFECTIVENESS

Buprenorphine Treatment Monitoring

Your provider will monitor how well you are following your treatment and how well you are responding to it to improve the likelihood for a positive clinical outcome and reduce the possibility of diversion of the medication supply for illegal purposes. The following may be included in this monitoring at your regular office visits during your maintenance on buprenorphine:

- Unannounced urine toxicology screening
- Medication counts – Providers may require you to bring your medication to each appointment and count it to assure the correct number of tablets or films remain in the container. This helps reduce diversion.
- Observed ingestion – Your provider or designated staff would observe you taking your medication. This is often used near the start of therapy and serves the dual purpose of making sure the medication is being used and making sure it is being used properly.
- Checking your prescription information in the Prescription Drug Monitoring Programs database.

Expert consensus on monitoring treatment adherence and effectiveness recommended the following:

- During induction and stabilization phases, weekly urine drug screens to detect alcohol and other drugs of abuse, and also to look for evidence of the buprenorphine metabolites.
- During the maintenance phase, monthly urine drug screens or every two weeks to detect drugs of abuse and to look for the buprenorphine metabolite.
CHANGING TO BUPRENORPHINE IMPLANTS AND INJECTIONS

Implants: An Option For Lower Dose Stable Patients
Buprenorphine implants have been approved as an option for patients stable on relatively lower doses (8 mg or lower)\textsuperscript{11}. During Maintenance phase, implants will need to be replaced every 6 months. The implant is placed subcutaneously on the inside of the upper arm. Only providers with specific certification in placing and removing implants can perform the local, minor surgery needed. If the dose is insufficient, it may have to be supplemented by taking daily buprenorphine through the oral mucosa.

Monthly Injections: An Option For Patients Who Are Stable In Maintenance Phase
Once a patient is in maintenance, a subcutaneous injection may be an option. It is generally given in the abdomen and forms a deposit.

Both of these long-acting options may have a higher cost and currently are covered by fewer insurance plans.
BUPRENORPHINE OVERDOSE RISK

The risk of severe intoxication and overdose is lower for buprenorphine than for other opioids. However, buprenorphine does have some biological action similar to full opioids, so overdose is possible. It is important to pay careful attention to any patient education materials your provider gives you on avoiding and responding to overdose.

- Because of the risk for overdose, your provider may prescribe naloxone, an overdose treatment, for you to use in the event of an overdose.

When Risk Of Buprenorphine Overdose Is High:

- Returning to opioid use while in buprenorphine treatment puts you at risk for an overdose.
- When buprenorphine is taken with certain other drugs, including other opioids, benzodiazepines, alcohol, sedatives, or certain medications that interact with buprenorphine. Misusing buprenorphine and sedative-hypnotics, particularly benzodiazepines, dramatically increases the risk of overdose.
- If buprenorphine is dissolved and injected instead of used as directed.
- In people who are not used to taking opioids, which is called being “opioid naive”. Exposure to buprenorphine is particularly risky for children. Accidental and non-accidental ingestion of buprenorphine in children is increasing, with thousands of exposures happening in a single year. Around a third of children under age 6 having exposures to buprenorphine develop a serious medical problem from it. Deaths from exposure to as low a dose as 2 mg have been reported, which underscores the importance of safe, preferably locked storage.

Prevalence Of Overdose And Abuse

- In 2011, an estimated 21,483 emergency room visits for misuse and 3,625 cases of toxic buprenorphine exposure were reported.
- Many of these visits involved the use of other substances, including benzodiazepines, narcotic pain relievers, marijuana, heroin, and cocaine.

The FDA recommends that patients be given medication guides for the buprenorphine medication they are prescribed and that providers review the guides with their patients. Their recommendation is, in part, to help reduce the risk of overdose.

Overdose Recognition & Prevention

Signs And Symptoms Of Buprenorphine Overdose:

- Cold, clammy skin
- Weakness
- Constricted pupils (Note: After brain damage occurs, pupils may dilate.)
- Hypotension
- Loss of consciousness/unresponsiveness
- Respiratory depression
Of these, respiratory depression may be fatal if untreated. Naloxone is used to reverse respiratory depression. For this reason, it is often prescribed at the same time as an opioid medication.

**Avoiding Overdose:**

To avoid overdose:

- Avoid mixing buprenorphine and alcohol
- Avoid mixing buprenorphine and benzodiazepines
- Avoid mixing buprenorphine with any other sedating medications
- Tell any provider who is prescribing you a medication that you take buprenorphine
- Do not to inject buprenorphine

**Overdose Special Considerations**

**Special Considerations For Benzodiazepines**

Long-term use of benzodiazepines together with buprenorphine is generally avoided, if possible. However, US FDA Guidance has evolved from earlier warnings to a later report highlighting that benzodiazepine use should not be the cause for discharging patients from buprenorphine treatment. It requires very careful medical management, including:

- Starting at a very low dose of buprenorphine and slowly increasing the dosage
- Using shorter-acting benzodiazepines

Do not take benzodiazepines (for example, Xanax) while you are taking buprenorphine, unless under medical supervision.

**Other Special Considerations**

Additional patient populations that may need a lower starting dose of buprenorphine and slower increase to avoid risk of overdose:

- Patients <20 years old
- Patients >60 years old
  - Particularly those who are frail, have HIV, hepatitis C, cancer, or are taking other sedatives (e.g., lithium)
- Patients taking multiple drugs

**Overdose: Treatment**

**Non-medical individuals** responding to an opioid overdose should activate emergency medical services by calling 911. They should administer naloxone according to the kit instructions. These instructions ideally would have been reviewed in advance when the kit was obtained. CPR may be needed if the individual's heart or breathing has stopped. It is important to continue to monitor the patient and get them medical care because naloxone's effects are relatively short and they may return to a state of respiratory depression.

**Considerations In Treating Overdose:**

- **Withdrawal symptoms.** Patients who are physically dependent on opioids are likely to experience withdrawal symptoms with abrupt reversal of opioid effects by naloxone.
• **Caution for cardiac disease.** Caution is required for patients with cardiac disease or who are on medications with potential adverse cardiovascular effects such as hypotension, ventricular tachycardia or fibrillation, and pulmonary edema\(^{32}\).

• **Is there also a benzodiazepine overdose?** Be sure to advise medical personnel if a mixed overdose with benzodiazepines is contributing. Treatment for the benzodiazepine part of the overdose is usually supportive including maintaining airway, respiration, and hemodynamic support until there is natural recovery\(^{24}\).

**Caution**
Keep medications away from where children can find them.

**FYI**
When buprenorphine/naloxone combination is injected by someone who is dependent on opioids, the naloxone can cause precipitated opioid withdrawal\(^{35}\).

**Naloxone for Overdose**

**Naloxone Overdose Reversal Kit**
Naloxone kits are used for the reversal of a narcotic overdose, induced by opioids. Although rare, buprenorphine overdose can occur. The kits can be used to counteract a buprenorphine overdose. However, as described previously, naloxone does not work as well for buprenorphine as it does for other abused opioids. These kits are often prescribed for patients on buprenorphine\(^{36}\).

The following kits have been available:
- Single-dose hand-held, auto-injector systems (FDA approved in 2014)
- Muscle syringes. One syringe per 1 ml of naloxone (FDA approved)
- Intranasal spray (Narcan®)
- Injectable dosages for intravenous, intramuscular and subcutaneous administration include 1 mg/ml and 10 ml (multi-dose)

Candidates for naloxone kits may include patients who are:
- Taking high doses of opioid medication for the prolonged management of chronic pain/illness
- At risk for incomplete cross-tolerance
- Taking extended-release opioid preparations that may pose a risk for overdose
- At risk for overdose due to medically prescribed analgesia, combined with a suspected or confirmed history of substance abuse, or dependence

The FDA approved a user-friendly intranasal formulation of naloxone in November 2015. The amount of medication gets into the body and how rapidly it is effective is comparable to the injectable version\(^{16}\).

Naloxone kits can also be distributed to your family members, friends, peers, or employers to be used in the event of an overdose.
PAIN MANAGEMENT

Simultaneous Pain And Opioid Use Disorder Treatment
Simultaneously treating addiction and (effectively) treating pain is challenging. If possible, non-opioids should be the first mode of treatment for pain among patients who are already maintained on buprenorphine. However, patients maintained on buprenorphine might require opioid therapy for their pain if they develop acute or chronic pain that is not responsive to the buprenorphine treatment or treatment with non-opioids. A referral to a pain specialist may be needed.

Pain Management From Office-Based Opioid Treatment
Buprenorphine formulated for treating opioid use disorder may not be sufficient as a pain treatment by itself, but some patients experience better pain control on buprenorphine than they experienced with opioids. While a single dose of buprenorphine works best to treat opioid use disorder to avoid a PRN mentality, some patients, especially those in chronic pain, may do better on a b.i.d. or t.i.d. dosing schedule. Ask your provider before making modifications to your dose, however. Buprenorphine's analgesic effect lasts only around 8 hours. Using the formula approved for treating opioid use disorder to treat pain is considered off-label use.

Buprenorphine for Pain Management
Buprenorphine, in a different formulation, can be used to treat pain. The formulations for pain are specifically intended for that purpose (e.g., Buprenex, BuTrans) in contrast to the formulations specifically intended for treating opioid addiction, e.g., Suboxone, Bunavail, etc..

According to the DATA 2000 law, buprenorphine formulations for treating opioid use disorder are not to be used for pain management.

A buprenorphine formulation specifically for pain: A 7-day buprenorphine transdermal patch (BuTrans®) is FDA-approved for use in the treatment of long-term, moderate-to-severe chronic pain. Regarding this formulation:

- Patches are available in 5, 10, and 20 μg/hour strengths
- Use is contraindicated in the management of acute or short-term, postoperative, mild, and intermittent pain
- It is not approved for treatment of opioid use disorder
- Providers do not need the DATA 2000 waiver to prescribe buprenorphine for pain

Reasons To Consider Buprenorphine As An Analgesic Over Full Agonist Opioids
- Treats a broad range of pain types including cancer pain and neuropathic pain
- Produces less constipation, cognitive impairment
- Is not immunosuppressive (like morphine and fentanyl)
- Has a ceiling effect with respect to respiratory depression
- Does not harm HPA-axis or cause hypogonadism
- Is not associated with QT prolongation (like methadone)
- Is effective in the older population
• May be used in renal failure and patients on dialysis
• Has milder withdrawal and less abuse potential than full agonists

Treatment of Acute Pain In Buprenorphine Patients

Treatment Of Anticipated Acute Pain
If you have scheduled elective surgery or another procedure in which you are going to have acute, but short-term pain while you are on buprenorphine treatment, your providers can plan accordingly to treat your pain safely and effectively. For situations in which non-opioid pain relievers are inadequate, providers may follow these steps:

• They may have you take buprenorphine the morning before the day of the procedure, then skip the buprenorphine dose the morning of the procedure.
• They may prescribe opioids to produce adequate analgesia, to be taken the morning of the procedure, titrated to effect. These will likely be prescribed on schedule rather than as-needed to avoid dose escalation.
• They will make adjustments to medications based on whether or not you receive intravenous pain medication.
• They may need to adjust your dose of medications due to physical tolerance on buprenorphine and unavailability of mu receptors due to recent buprenorphine doses.
• If you remain an inpatient, providers may elect not to give you buprenorphine.
• When opioids are no longer required for pain management, you can be re-induced on buprenorphine following a similar procedure to your initial induction.
• *Your provider may refer you to a specialist for some or all of the above, depending upon your needs and their experience in this area of medicine.*

Treating Unanticipated Acute Pain
Pain management is slightly more complicated for patients on buprenorphine who are hospitalized with unanticipated acute pain (for instance, for emergency surgery). Providers may follow these guidelines for treating unanticipated acute pain:

• Determine when your last dose of buprenorphine was taken and temporarily stop buprenorphine; proceed with pain management in the manner described above.
• Provide regional anesthesia, increasing the buprenorphine dose, adding a high-potency opioid, such as fentanyl, or temporarily switching the patient to methadone potentially with short-acting opioids temporarily for the pain. When the pain is gone, the patient can be tapered off of methadone and re-induced onto buprenorphine.
• Your provider may need to refer you to a specialist if this is outside of their area of expertise.
DISCONTINUING BUPRENORPHINE

Although discontinuing buprenorphine is generally not recommended, it may be requested by some patients.

Guidelines For Discontinuing Treatment
To discontinue treatments, it is best that these conditions are met:\n
- Patients must have expressed a desire to discontinue treatment
- Patients must have established stable living and income
- Patients must have adequate psychosocial support
- Termination of treatment and requirements that must be followed to optimize chances of success should be outlined in the treatment agreement

The Evidence For And Against Discontinuation (with taper)
The optimal duration of medication-assisted treatment with buprenorphine is not clear, but it is clear that there is a high risk for relapse when medication-assisted treatment is discontinued, even if maintenance has been stable for a while. A major, government-sponsored study found that treating prescription opioid-dependent patients with a brief buprenorphine taper and stabilization treatment plan (plus counseling) almost always led to relapse. Around 88% positive urine drug tests were found at 3 months post-taper in this NIH (NIDA)-funded study.

If buprenorphine is discontinued, it often works best to taper the dose slowly and while being closely monitored, usually over a period of several months. One guideline put out by the VA/DOD, based on "strong" evidence for it, recommends transitioning to extended-release injectable naltrexone if discontinuing buprenorphine, although they recommend providers "strongly advise" patients to continue buprenorphine maintenance long-term.

Circumstances For Discontinuing Buprenorphine
Discontinuing buprenorphine is not required or even recommended. Patients can continue buprenorphine therapy indefinitely if they want, to as long as they adhere to treatment and experience no complications.

Opioid abuse is usually not grounds for terminating buprenorphine treatment. Alternative responses include checking on the proper use of buprenorphine and dose, increased office visits, and making continued treatment contingent on increased psychosocial support.

Factors that are associated with successful discontinuation of buprenorphine include the following:

- Being employed or otherwise engaged in meaningful activities
- Involvement in peer mutual self-help programs, such as 12-step programs
- Consistent and sustained abstinence from opioids and other substances
- A psychosocial environment that is improved and highly supportive
- Engagement in treatment before and after discontinuing buprenorphine
**Discontinuing Buprenorphine**

Abrupt cessation of buprenorphine should be avoided. If tapering to complete cessation is desired, it should be gradual and medically supervised with plenty of psychosocial support. Discontinuing buprenorphine should be discussed thoroughly with patients and their significant others. Providers may ask patients why they want to discontinue treatment and encourage them to remain on the therapeutic dose as long as it is beneficial. Providers may include a discussion of potential consequences and explain the following:

1. Relapse rates are high when buprenorphine is discontinued.
2. Continuing the medication reduces the risk of relapse to patients, and is similar to taking medication for a chronic condition, such as hypertension being continued indefinitely.
3. Some patients can taper down to 2 or 4 mg (sublingual tablets or equivalent of other formulations) but cannot get off entirely without uncomfortable withdrawal symptoms.
4. If patients wish to discontinue buprenorphine use, recovery support services are even more important. Providers may encourage patients to participate.
5. Alternative forms of pharmacotherapy may help patients in remaining abstinent in the long-term.
6. Patients who discontinue buprenorphine should still be monitored and assessed for cravings and adherence to psychosocial therapies.
7. Providers may encourage their patients to return for maintenance treatment if cravings develop after withdrawal.

**Warning**

Patients are at risk for relapse to opioid use and, therefore, overdose when withdrawing from buprenorphine.

**Potential Alternatives To Buprenorphine**

Three alternatives to buprenorphine treatment can be considered for patients being maintained on buprenorphine wishing an alternative treatment for opioid use disorder:

- Medication-assisted treatment with methadone
- Medication-assisted treatment with naltrexone
- Medication-free treatment

All three approaches should include psychosocial treatments as part of the treatment. Such discontinuation and transfer to the new medication can be accomplished simply and on a timetable appropriate for each patient and medication.

**Considerations For Drug-Free Treatment**

Alternatively, all pharmacotherapy can be stopped. For most patients, switching to an alternative pharmacotherapy is a better option, because patients who quit pharmacotherapy altogether are unlikely to remain abstinent. Withdrawal from buprenorphine to no drug therapy should only be considered seriously for very well-stabilized, highly motivated patients.


**TAPERING PROTOCOL FOR QUITTING BUPRENORPHINE**

**Tapering**
If, after weighing the risks of relapse, discontinuation of buprenorphine is selected, it should be achieved through a safe, structured protocol.

The rate of taper has more to do with percent decrease than absolute dose decrease. In other words, it is often easier for patients to go from 14 mg to 12 mg than 6 mg to 4 mg.*

*Doses described on this page were established with the original Suboxone® sublingual tablets and should be adjusted for the formulation you are using.

**Guidelines Recommend Longer Tapering**
Guidelines on medication-assisted treatment produced by ASAM recommend that tapering and stopping buprenorphine should be achieved slowly, usually over several months, with close monitoring. Furthermore, they recommend that patients remain in treatment for ongoing monitoring, even after buprenorphine is wholly discontinued. A long-period may be more favorable for patients who would be less willing or able to seek outside support during treatment. Additionally, a more lengthy process may help decrease the severity and occurrence of withdrawal symptoms as the patient’s dose is tapered.

**Shorter Tapering**
However, some research found no benefit for a 28-day taper in comparison to a 7-day taper. The following table describes a possible 7-day tapering protocol.

<table>
<thead>
<tr>
<th>Stabilization Dose</th>
<th>8 mg</th>
<th>16 mg</th>
<th>24 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>8</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Day 2</td>
<td>6</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Day 3</td>
<td>6</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Day 4</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Day 5</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Day 6</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Day 7</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

A reduction can also take place in as short as 3 days for those patients who have immediate and compelling reasons to discontinue use, such as a pending health issue (surgery) or job limitations regarding extended absences. However, rapid tapers may increase the likelihood of withdrawal symptoms and subsequent relapse.
TAPERING CHALLENGES

Withdrawal During Tapering Of Buprenorphine

Monitor Carefully During Tapering
Withdrawal symptoms, psychosocial status, and drug use are typically monitored carefully during the tapering phase.

If and when these symptoms arise, providers may temporarily suspend tapering until you are stabilized at your current dose. You may be prescribed non-opioid medications to manage specific withdrawal symptoms:

- Non-opioid pain relievers (NSAIDs or acetaminophen, while considering risks vs. benefits)
- Antidiarrheal agents
- Antiemetics
- Antispasmodics

Withdrawal symptoms are treated the same during tapering as they are treated during induction.

Non-Pharmacological Support
Patients being tapered off buprenorphine are encouraged to:

- Seek non-pharmacological support and programs, such as 12-step programs, that will help ensure that they will remain abstinent from opioid use
- Return for maintenance treatment if cravings develop after tapering

Relapse After Buprenorphine Taper

Relapse After Taper Is Common
Relapse is common when buprenorphine is stopped, both for patients who stop their treatment under a clinician’s guidance and for those who stop on their own.

- In one long-term, NIDA-funded study of over 500 patients who tapered off buprenorphine, relapse rates at 3-months after both 7 and 28-day tapers were 87 to 88% as measured by positive urine drug tests.
- Patients using prescription pain medications and having opioid use disorder treated with a brief buprenorphine taper after stabilization on a buprenorphine treatment plan (plus counseling) almost always led to a relapse in another study. 6.6% were abstinent at 8 weeks after a protocol of 2-week stabilization followed by a 2-week taper. Even a long stabilization period of 3 months with counseling followed by a 4-week taper resulted in a high relapse rate of around 90% at 8 weeks post taper.
- 6 weeks of stabilization followed by a slower, 3-week taper, was also associated with a high relapse rate.

Some patients, feeling that they are cured or wanting to be completely free of medications, self-taper from buprenorphine, successfully at first, but then relapse and come back. They may want to see if they 'are still
addicted.' The wish for a cure, rather than pharmacologically-mediated control is common among all chronic illnesses.

Patients who relapse to misuse of opioids should be returned to medication-assisted treatment. Patients who are abusing opioids and have been off of buprenorphine for more than a few days will likely do best by going through induction again.
LAPSES, RELAPSE, AND RETURN TO TREATMENT

Responding To Relapse
The causes of relapse are often complex. The extent of the relapse can vary and should be described to your provider regarding dose and frequency as well as the psychosocial impact to understand how best to support you in getting back on track.

Relapse does not mean that buprenorphine treatment is not effective for a particular patient. Instead, it may mean that a higher dose or more intensive psychosocial treatment or support system or other increase in structure, such as more frequent appointments, would be helpful.

Patients who wish to return to buprenorphine maintenance are not turned away in most cases. Instead, the treatment agreement is modified to be more strict, urine testing and office visits happen more frequently, and more involvement in group or individual therapies is often required. Patients may be referred to an addiction specialist if they have issues that can not be adequately handled in primary care.

More Tips For Dealing With Relapse
• Relapse is common. Providers may formulate a plan for what they would do in various relapse situations.
• Patients who have a history of failed treatment attempts or other issues may put them at higher risk for relapse.
• Many providers keep the door open for re-admission if possible.
• In some cases, re-admission means repeating induction.
• With relapse, patients often benefit from increased contact. Your provider may require office induction rather than home induction, shorten the time interval between prescriptions, to see you more often.

Determining Location For Re-Induction: Home Vs. Office
In some cases, re-induction at home is safe and may be an appropriate choice. For instance, this may be an option if you are familiar with how to use buprenorphine, are far away or cannot come in for several days, or have a spouse who will help monitor you for withdrawal symptoms. If you and your provider decide this is the best approach, you may still need an office visit for medical evaluation and to obtain instructions.
KEY POINTS

Buprenorphine Maintenance Guidelines

- Buprenorphine maintenance should continue indefinitely for most patients; unless there is a compelling reason to stop, due to the high rate of relapse when buprenorphine is discontinued.
- Concurrent and psychosocial support is an important part of treatment. Periodic psychosocial assessment is indicated throughout treatment.
- Maintenance dose with no withdrawal and no cravings is between 12-16 mg (Suboxone® or generic, slightly less for Zubsolv® or Bunavail™) for most patients.
- Providers may conduct lab tests and periodic psychosocial assessments throughout the maintenance phase.
- The buprenorphine implant is an alternative for patients who have been maintained on a stable dose of submucosal buprenorphine of 8 mg or less for at least 3 months. It is placed under the skin in a minor surgical procedure by a REMS-certified prescriber and replaced every 6 months.
- The injectable form of buprenorphine is an alternative for patients who have been maintained at a stable dose of submucosal buprenorphine for at least 7 days.

Tapering Off Of Buprenorphine

- If patients wish to discontinue buprenorphine use, alternative forms of pharmacotherapy may be their best chance for remaining abstinent.
- A gradual taper, usually over a period of around 2 weeks, is used for discontinuation of buprenorphine.
- Shorter and longer tapers are safe and can be used if needed, based on circumstance.
- Patients should be monitored carefully for signs of withdrawal if tapered off buprenorphine.

Relapse

- Relapse is common among addiction patients and usually should not be ground for dismissal from a treatment program.
- Relapse may mean that a higher dose or more intensive psychosocial treatment is needed.

Treating Pain In Patients On Buprenorphine For Opioid Use Disorder

- Detoxification is not as effective as long-term medication maintenance treatment, with buprenorphine, for example, in helping patients stay otherwise opioid-free over the long-term.
- Patients in detoxification should be carefully monitored, offered appropriate psychosocial support, and offered medication maintenance treatment, such as buprenorphine, if they become unstable.
- Patients on buprenorphine who develop moderate to severe pain should be treated with non-opioids if possible. If that is not possible, a careful regimen may be followed to treat their pain with opioids safely.
- Patients with chronic pain who require opioid replacement therapy could be maintained on methadone rather than buprenorphine.
- Although the risk of overdose with buprenorphine is lower than with other opioids, it still exists. Risk is increased with the use of certain sedating medications, particularly benzodiazepines, injections, and being opioid-naive. Naloxone is used to reverse overdose.
Avoiding Overdose

To avoid overdose risk from buprenorphine, providers may advise patients to:

- Exercise caution when combining buprenorphine with sedating medications or substances, especially benzodiazepines. Avoid if possible.
- Learn to use their naloxone kit and advise those around them what it is and how to use it.
- Never inject buprenorphine themselves.
- Keep their medication supply locked up. Opioid-naive individuals are particularly at risk for overdose.
REFERENCES


32. Davis MP. Twelve reasons for considering buprenorphine as a frontline analgesic in the management of pain. SupportiveOncology.net. 2012.


