

**Medical issues for counselors: Four patient questions about methadone.**

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**Abstract.**

Counselors in the opioid treatment program may not be trained in medicine or nursing, yet many of their interactions with patients concern medical care. This paper is meant to educate counselors in the basics of methadone maintenance by introducing the medical model of addiction, and by reviewing questions commonly asked by patients. Why is methadone better than using heroin? How do I know I'm taking the right dose? How long should I stay on methadone maintenance? What are the side effects of methadone? These are addressed by counselors in a multidisciplinary treatment setting, and can be part of a therapeutic alliance with the patient who is enrolled in methadone maintenance.

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**Introduction**

Patients arriving for treatment at a methadone clinic have decided - usually after many other approaches have failed - to take medication for their addiction. At that point, their main focus is on the medication itself: this medication will prevent the dreaded withdrawal symptoms and will help keep them out of legal trouble. Besides, it's cheaper than heroin.

These patients may or may not be familiar with the regulatory requirements for counseling, testing, and observed dosing that are part of methadone maintenance in the United States.[1, 2] They may believe, sharing popular misconceptions, that methadone will make them drowsy, or high. Many of these patients believe that abstinence is impossible during methadone treatment. [3] In fact, this is likely what they have learned from misinformed peers in twelve-step meetings. Some of them think of it as another kind of heroin. Most of them have tried very hard not to need this treatment.

Counselors starting out at a methadone clinic may be formally trained in psychology, social work or addiction counseling. They are usually not trained in medicine or nursing. They may not feel well prepared to face these patients who are focused on relief from withdrawal, and who carry with them a variety of ambivalent misconceptions about the medical treatment. Patients may be surprised that any recovery work is expected, and meet the counselor with questions about the medication itself. In this interdisciplinary environment, engagement with the patient may depend on knowing some basic information about the medical treatment, and having a language with which to talk to patients who may be focused on 'the dose.'

Stabilization of the methadone dose may take weeks or months.[4] During this time the patients have many questions. How will the medication make me feel? How will I know when I have enough? How will I know when/if I'm cured? Will the medication hurt me? Will it interfere with other medications? These are questions that patients might ask about any new medication. In addition to these generic questions, there are 'urban legends' about methadone. "It gets in your bones. It'll rot your teeth. It makes you a zombie. It's really hard to taper off. It poisons your liver. It's just substituting one addiction for another." None of these statements are medically correct, but they seem to have a life of their own, and they are part of street lore. Patients may be having a hard time facing the chronicity of the addiction, may feel pressured to justify their decision to get treatment to friends and family members. The OTP counselors are an important resource for the patient during these adjustments in early treatment.

The discussion below begins to address these patient questions. It equips the counselor with basic information and language about methadone itself. The counselor then can truly become a resource for a patient who is facing all the difficult tasks of recovery.

**The medical model.**

Addiction is a chronic and relapsing illness, which if untreated can lead to serious complications and death. This is a brief statement of the medical model of addiction treatment underlying methadone maintenance. The counselor must know and use this model, and understand its implications for patients.[5] Methadone clinics also use and integrate the other treatment approaches besides the strictly medical model. Recovery, psychodynamic, behavioral, and spiritual approaches are available, and patients may be using techniques from all of these approaches at any given time. However, in any discussion about the medication, it helps to

understand three important implications of saying that addiction is a chronic illness. First, we have treatment but no cure. (If we had a cure, it wouldn't be a chronic illness.) We have good treatment. Treatment of chronic illness is aimed at controlling the disease, and preventing the long-term ravages of the condition. Analogies to other common chronic illnesses may be useful in counseling. A common parallel example is diabetes. We control the blood sugar to prevent the heart attacks, strokes, amputations, or blindness associated with diabetes. With methadone maintenance, we reduce the drug abuse, and prevent HIV, incarceration, and early death associated with continued heroin use. Counselors convey these goals of medical treatment to the patient. [6, 7]

Second, adjustment to the diagnosis is part of the patient's task, a kind of grieving process. Patients with chronic illness usually wish they didn't have this ongoing problem. They hope that it will be gone or cured. Sometimes society and family members share this false hope. But it will not be gone, daily life is affected. This problem is something the patient will have to think about every day, and make lifestyle adjustments. Counselors support the patient as they face this painful diagnosis, and through this adjustment period as they begin to understand its implications.

Thirdly, there is a wide spectrum of severity in any chronic illness, including addiction. Some patients can cut down, or stop using by going to groups, or go to a year of residential care and then outpatient or self-help groups, and not use heroin. By the time the patient requests methadone maintenance, those techniques have been tried and have failed. The counselor is working to undermine the prevalent all or none thinking. Addicted persons who did not need methadone think that what worked so well for them will work for everyone else, and don't realize the range of severity in this disease of addiction. A patient who needs methadone maintenance may be sitting in a recovery group next to someone who says that nobody needs methadone. The counselor interprets this situation, and explains the implications of spectrum of severity. Here the analogy with diabetes may serve well. Some patients who are diabetic just stop putting sugar in their coffee and achieve control. Others lose twenty pounds and no longer have high blood sugar. Some take pills and do well. But there are diabetic patients who do all these things and still need insulin to achieve control of their disease. The patient on methadone maintenance can be compared to the more severely ill patients who need insulin. [8]

Using the medical model of addiction as a framework, the counselor is now ready to address the four big questions: How is methadone better for me than heroin? What is the right dose of methadone for me? How long should I stay in methadone treatment? What are the side effects of methadone?

### **How is methadone better than heroin?**

This pertinent question takes many forms. The stigma of methadone as "just another drug" is part of this question. Methadone is a dependence-producing opiate under tight regulatory control, so why should we give this to an already addicted person? Isn't it just substituting one harmful substance with another? Won't opiates keep the patient "loaded" and unable to function?

The counselor juggles layers of stigma and misinformation as well as information from neurochemistry from the last twenty years in the process of helping the patient with this very valid concern.

When this question is turned back to the patient, he or she can usually list some of the benefits of treatment: methadone is legal, so I won't be in trouble with the law, I won't have to use needles, so there is less risk of getting or spreading germs and AIDS, and it's produced in a legitimate drug company, so I know what I'm getting. But there are many more benefits that are not immediately evident to the patient, which may be helpful to discuss.

#### Effects of opiates.

This figure has been developed by Dr. Thomas Payte, to show what happens during opiate use. Dr. Payte is a long-time proponent of evidence-based treatment for opiate addiction. He has labeled the 'opiate effects' according to patient descriptions of their sensations.

[Figure 1 about here]

#### *Objective withdrawal*

An addicted individual goes into withdrawal when the opiate is wearing off. This is called being "sick" or "dope sick" by patients. At this point the clinician is a witness: we can measure elevated pulse, blood pressure, temperature, and dilated pupils. The patient may be vomiting or having diarrhea and abdominal cramps. (see table 1)

### *Subjective withdrawal*

Just above this level of physically measurable withdrawal is 'subjective withdrawal' or 'craving.' This level of discomfort may be severe, but is not easily measurable. The patient reports being edgy, not sleeping, or if falling asleep maybe having nightmares about using drugs, having intrusive urges and thoughts about using drugs. The patient experiences the lack of ability to act according to his or her decisions. For example, a patient who decided to be abstinent today may find himself in the car on the way to buy drugs. Some patients think they are losing their minds. This is indeed a physical state, but takes place in the brain and is only lately measurable by brain scan in research settings.

### *Intoxication*

With high amounts of opiate, the patient is intoxicated, "loaded" or "high." The judgment and ability to carry out ordinary tasks is impaired, and some of the sedative effects of opiates may cause drowsiness or "nodding."

### *Functional level*

Between being 'sick' and being 'loaded' is an area of normality and ease of function. The brain is acting normally, and the patient feels "normal" or "straight." The patient is fully aware of his or her surroundings, and is able to carry out daily tasks.

Although patients readily recognize these levels of opiate effect when they are described, they often focus on the most problematic ones: high and sick. They may believe that for an opiate to treat withdrawal, it must produce intoxication. This is based on their experience with heroin. Heroin does produce this seesaw between being 'loaded' and being 'dope sick.' It has a rapid, instantaneous onset of action, and it wears off soon. Methadone is very different from heroin on both counts.

### Onset of action.

When injected or snorted, heroin literally hits the brain at peak action. (see Figure 1) It takes less than a second for the patient to go from being in withdrawal to being intoxicated. This sudden impact is called "the rush" and is considered very addictive. It is so compelling that patients are willing to endure many adverse consequences to continue their use. Methadone is ingested by mouth, absorbed through the stomach, metabolized by the liver. The patient starts to feel the onset of effect about twenty minutes after ingestion, and the peak effects occur three hours later. [4] There is no 'rush', and methadone is less disruptive and eliminates many of the adverse consequences of heroin. (see Figure 1)

### Duration of action.

After using heroin, the patient is intoxicated for less than two hours, and within four to six hours is already in withdrawal. As illustrated in the curve in Dr. Payte's figure, heroin doesn't last very long. This short duration of action is shared with many dependence-producing substances that require multiple daily doses. Heroin addicted persons typically use heroin four to six times daily to avoid withdrawal. The experience is literally of either being 'loaded' or being 'sick'. [9] The short hours of clear-headed time are spent worrying about the impending withdrawal. Patients just beginning maintenance treatment may associate - indeed are conditioned to associate - the fully aware state, which the counselor is calling normal, with withdrawal.

On the other hand, a methadone maintained patient who is on the correct dose doesn't go into withdrawal. At steady state, methadone tissue stores act as a sort of slow-release mechanism, keeping methadone in the patient's bloodstream, continually available to the brain receptors. The patient is in the 'functional' or 'comfort zone' part of Dr. Payte's graph. (See Figure 1) This stabilization allows other body activities to normalize. [9] The stress hormones, activated each time the patient went into withdrawal are now stable. The immune system function goes back to normal. Women may resume menstrual cycles and fertility. [9, 10] The counselor emphasizes the importance of this stability to the patient. It provides the platform from which the patient carries out recovery activities and life plans.

These key differences between heroin use and methadone treatment so well illustrated in the two curves on Dr. Payte's graph, point out how methadone is not "just another drug." We cannot accurately call maintenance treatment 'substitution' or 'replacement.' It is a normalizing, stabilizing platform for recovery. In summary, we now have several answers to the first patient question. Methadone is better than heroin because it stabilizes the body and the brain, eliminating the harmful swings between withdrawal and intoxication, and allowing normal daily activities with a clear mind. Besides, methadone is legal when taken as part of methadone maintenance, it doesn't require needles that could spread infection, and it is manufactured by legitimate drug companies in standardized doses.

### **What is the right dose of methadone for me?**

This question comes up a lot early in treatment, and has many clinical implications for counseling. Patients may get caught up in the numbers or milligram amount of the dose, and feel that a milligram level of dose reflects on their progress in recovery. They may describe bodily symptoms that may or may not be withdrawal. They may want to go up or down in dose to experiment, and find just the right level on their own. The counselor is in a good position to help the patient sort all this out, and to make recommendations to the medical team about dose changes. The patient then sees the counselor as integral to all aspects of treatment. Is a particular symptom a withdrawal symptom, or something else? Does the symptom happen as the dose wears off, and if so will a dose increase postpone or eliminate that symptom? Referring to a list of withdrawal symptoms, as listed in the table may help.

*[table 1, COWS, about here]*

On the other hand, a patient may be concerned and worried that he or she is taking too high a dose.

Arranging to meet with the patient three hours after ingestion of a steady dose would show whether the patient is drowsy at peak. If the patient is sleeping through the counseling session, as well as through the night, this would suggest that the dose is indeed too high.

Sometimes the patient will ask to go up or down several times, seeming confused about what is 'normal.' He or she may become anxious when not feeling the "abnormal normality" of being slightly intoxicated. Perhaps the patient has not felt completely normal for many years, and may need some education and support.

In addition to finding a dose where withdrawal is eliminated, craving is controlled, and at which there is no drowsiness, some patients may benefit from a 'blocking' dose. Is the patient still using heroin, and if so, is he or she 'feeling' the heroin? In this situation, raising the dose of methadone can eliminate the euphoric effects of the heroin. [9]

Finally, there is a minority of patients for whom a single daily dose of methadone will not work. Some patients may still go into withdrawal by the end of the day in spite of feeling the dose is too high at peak. Those patients should be medically evaluated for split dosing, and medical reasons for rapid metabolism should be ruled out. [4]

### **How long should I stay on methadone?**

This is perhaps one of the more painful realities addressed in counseling. Addiction is a chronic illness, and requires ongoing treatment. Current evidence indicates that less than 20% of those who qualify to be on methadone maintenance will maintain their gains if they discontinue, strongly suggesting their brain function does not normalize when opiates are discontinued. Very often patients feel better and are surfacing from the addiction and doing well when they ask this question. This same patient question occurs in treatment of other chronic illnesses in medicine and psychiatry. Do I have to take my blood pressure medication, now that my blood pressure is normal? Do I have to take my antidepressant, now that I'm not suicidal? In these cases the answer is most likely yes. The medication is working. This is a chronic disease. Of course, autonomy and patient choice are also part of medical care. Many patients decide to 'try and get off' their methadone. In these cases the focus of counseling should be on minimizing harm. The patient can be encouraged to taper slowly, and to check in frequently with the counselor. The patient should be informed of the dismal relapse rates of patients who taper off of maintenance medication. These relapse rates are 60 percent within six months, and over 80 percent by 12 months. [6, 11] They should be reminded of the risk of incarceration and needle-related illnesses such as HIV and AIDS in case they relapse. If they run into problems during a taper, rapid resumption of an adequate dose should be offered, and readmission to maintenance should be kept open for those who have discontinued their treatment. It is of great importance to help such patients focus on preserving their life style gains. It helps if they can view their need to resume methadone maintenance as the "luck of the brain chemistry" and not as a personal failure.

### **What are the side effects of methadone?**

This is a question for any medical treatment. In the case of methadone maintenance, the answer takes into account the already existing dependence and use of heroin or other opiates. It also deals with commonly heard misconceptions about the effects of methadone.

Physical dependence.

All opiates produce physical dependence if taken regularly. This means that if the patient stops taking the opiate, there will be a recognizable withdrawal syndrome. Patients are not admitted to methadone maintenance unless they already are opiate dependent. Methadone ingestion continues the already existing physical dependence. If it is stopped suddenly, the patient will experience withdrawal. (This is why the medically acceptable way to discontinue treatment is to taper the methadone by reducing the dose over time.) This withdrawal is somewhat different from heroin withdrawal. Heroin withdrawal happens dramatically over a 48-hour period beginning about six hours after the ingestion of heroin in a dependent person. Withdrawal after suddenly stopping methadone maintenance develops gradually, beginning about 36 hours after ingestion of the last dose, and continuing over a period of about a week. Symptoms may gradually get worse and then resolve during that time. It should be noted that some patients fear the more prolonged gradual withdrawal even more than they fear the shorter severe version.

Specific methadone side-effects:

There are two areas where symptoms related to methadone may be more severe than symptoms related to other short-acting opiates.

Constipation.

Opiates stop intestinal contractions. This is commonly known in popular culture, and is the basis for common treatments of diarrhea and cramps (paregoric, Lomotil®). On the other hand, diarrhea and cramps are part of withdrawal from opiates. (see table 1) A patient who uses heroin, and goes into withdrawal several times a day would probably not have a problem with constipation, and might not be expecting this side effect to happen while taking methadone. Methadone may produce prolonged constipation, because the patient does not go into withdrawal. [9] Patients develop ways of dealing with this over time. Some drink water, take daily walks, eat fiber, or take stool softeners for control of this problem. Counselors educate patients about this common side effect, and support these adjustments to the medication.

Sweating.

Methadone causes perspiration in some patients. [9] Minor exertion, such as going up steps, or the usual work activity involved in physical labor jobs, may produce copious sweating in a minority of patients, to the point of requiring shirt changes through the day. The counselor is involved in helping the patient determine whether this is a withdrawal-related symptom or a side effect of the medication. The perspiration itself can sometimes be symptomatically addressed with medications.

Misinformation about methadone.

Specifically, methadone does not directly affect dental caries, does not damage the liver, and is not stored in bones. These are common urban legends about methadone. When patients surface from their addiction and stabilize on maintenance treatment, they may become more conscious of their overall health. They may begin going to the dentist after years of neglect. They may become more conscious of the effects of physical trauma such as auto accidents or gunshot wounds which are part of a marginalized life. The counselor is an excellent position to encourage healthier forms of self-care, and regular checkups and cancer screens. Specifically, screening for needle related infections such as hepatitis and HIV are important, because timely treatment is beneficial.

**Summary**

Counselors in methadone maintenance are working in a multidisciplinary medical-model treatment setting. They are frequently in a position to encounter important patient questions related to the medical aspects of treatment. This article reviews medical information that is used by counselors in their support of the many life and behavior changes of the methadone maintenance patient. It focuses specifically on methadone as a medication, and how this topic may come up in counseling sessions. Of course, there are many other medical topics of interest to methadone maintenance patients, such as infections, trauma, or chronic illness. Counselors may discuss such questions in consultation with medical staff, or as part of case conferences, ongoing trainings, or grand rounds within each clinic.

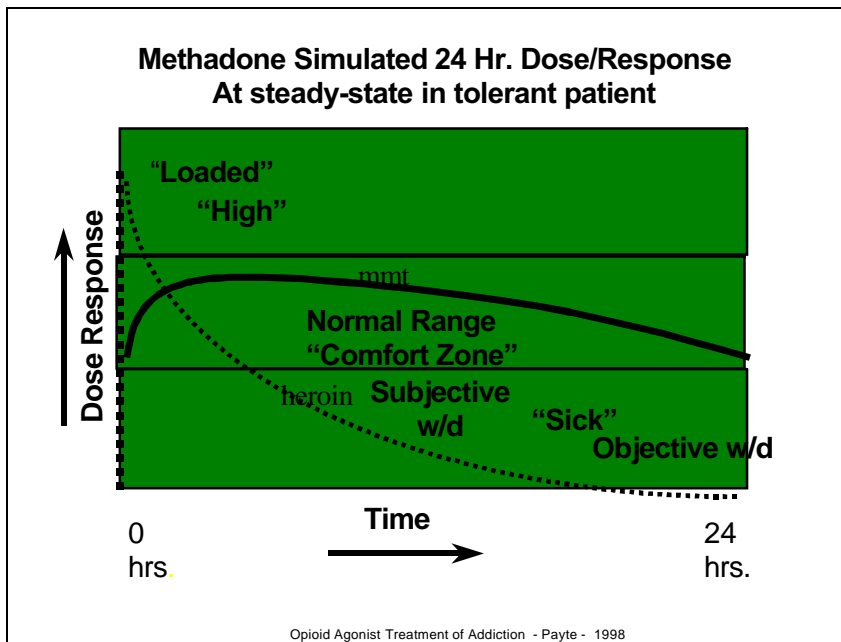


Figure 1:  
Dr. Payte's illustration, comparing the onset and duration of action of heroin (dotted line) with methadone in a patient on the correct dose of methadone maintenance (bold line).

### Clinical Opiate Withdrawal Scale

For each item, circle the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increase pulse rate would not add to the score.

Patient's Name: _____ Date and Time ____/____/____:_____	
Reason for this assessment: _____	
<b>Resting Pulse Rate:</b> _____beats/minute <i>Measured after patient is sitting or lying for one minute</i> 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120	<b>GI Upset: over last ½ hour</b> 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting
<b>Sweating: over past ½ hour not accounted for by room temperature or patient activity.</b> 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	<b>Tremor observation of outstretched hands</b> 0 No tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
<b>Restlessness Observation during assessment</b> 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 Unable to sit still for more than a few seconds	<b>Yawning Observation during assessment</b> 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
<b>Pupil size</b> 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	<b>Anxiety or Irritability</b> 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable anxious 4 patient so irritable or anxious that participation in the assessment is difficult
<b>Bone or Joint aches If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</b> 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/ muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort	<b>Gooseflesh skin</b> 0 skin is smooth 3 piloerection of skin can be felt or hairs standing up on arms 5 prominent piloerection
<b>Runny nose or tearing Not accounted for by cold symptoms or allergies</b> 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing Assessment: _____

Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal

This scoring tool was developed by Drs. Walter Ling and Don Wesson.

**TABLE 1**

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