



# Craving Intensity and Withdrawal Severity across Phases of Opioid Detoxification with Buprenorphine

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## Introduction

- The occurrence of craving and withdrawal symptoms may contribute to relapse to drug use during treatment episodes and recovery efforts.
- Most research on craving and withdrawal indicate that the first few weeks after attempts to reduce drug use are the most problematic. No research, however, has examined the possible waxing and waning of craving intensity and withdrawal symptom severity across phases of the detoxification process.
- The current study utilizes data collected in a recently completed 4-week detoxification trial conducted as part of NIDA's Clinical Trials Network (CTN) to compare two taper lengths (7 and 28 days), for the purpose of describing craving and withdrawal by study phase.

## Primary Objective

To examine indices of craving intensity and withdrawal symptom severity to describe the change pattern during phases of a detoxification program.

## Methods & Procedures

**Participants:** 516 opioid-dependent individuals were randomized; 374 completed end of taper assessments; 254 and 206 completed 1 mos and 3 mos follow-ups, respectively

**Study Phases:** 1) screening; 2) induction/stabilization on buprenorphine (4 wks); 3) taper; 4) 1-month post-taper follow-up; 5) 3-month post-taper follow-up

### Measures:

- Visual Analog Scale (VAS): self-reported intensity of craving, higher number indicates more intense craving
- Clinical Opiate Withdrawal Scale (COWS): clinical assessment of signs & symptoms of opiate withdrawal, higher numbers indicate more/greater withdrawal symptoms

### Procedures:

Assessments completed at each weekly clinic visit through end of taper, at 1 and 3 mos follow-ups  
Buprenorphine doses adjusted to comfort for 3 wks; final wk fixed dose at 8,16 or 24mg

### Analyses:

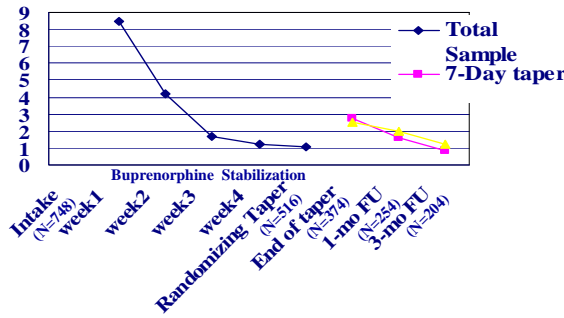
Figures show COWS and VAS scores for total sample up to taper phase, then groups divided into taper groups for further analyses

## Table 1. Participant Characteristics

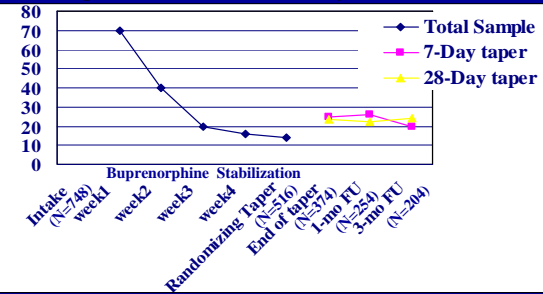
	Total Sample	7-Day Taper	28-day Taper
Number	516	255	261
Mean Age (sd)	36(11)	36(11)	36(10)
Ethnicity: # (%)			
White	70.9	73.3	68.9
Black	11.2	12.2	10.4
Hispanic	9.1	7.5	10.8
American Indian/Alaskan	5.2	3.8	6.5
Asian/Pacific Islander	1.6	1.6	1.5
Other	1.7	1.6	1.9
Mean Yrs. of Heroin Use (sd)	6(8)	6(9)	6(7)

## Results

### Figure 1. COWS Score by Study Phase



### Figure 2. VAS Score by Phase



## Conclusion

- The mean VAS and COWS for the entire sample differed by detoxification phase, with scores significantly reduced from screening (week -5) to the end of the induction/stabilization phase (week -1).

- Craving and withdrawal scores increased for both taper groups at the end of taper as compared to the end of the induction/stabilization phase. COWS scores are reduced at the 1- and 3-mos follow-ups but VAS scores stay relatively consistent at follow-ups.

- These findings suggest that buprenorphine successfully addresses withdrawal and craving during detoxification. Craving and withdrawal increase when buprenorphine use is stopped – although not to previous levels.

- Limitations of these findings are due to the increasing number of study drop outs over the study duration (although no difference in drop-out by taper condition), limiting the ability to accurately assess true craving and withdrawal as these results reflect only the COWS and VAS of those who remained in the study. Further analyses shall be done to determine if low COWS/VAS scores at follow-up are due to resumption of illicit opioid use as measured by urine toxicology tests.

- Additional research addressing the patterns of withdrawal and craving symptoms during detoxification, and associations with outcomes should be examined.