

Effects of Abstinence from Tobacco

A Critical Review

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1. INTRODUCTION

Many smokers, ex-smokers, and scientists have strong opinions about the effects of abstinence from tobacco. Some believe the effects are mild, are not true withdrawal phenomena, and have little to do with the inability of smokers to stop. Others believe abstinence effects can produce significant distress, are similar to the classical withdrawal syndromes of opiates and sedatives, and account for much of the inability of smokers to stop.

Over the last 40–50 years, the withdrawal syndromes from opiates (e.g., Martin, 1977; Katz and Valentino, 1986), alcohol (e.g., Mello and Mendelson, 1977), sedatives/hypnotics (Woods et al., 1987), and benzodiazepines have been well characterized (Fig. 1) and determinants of withdrawal, such as dose and duration of drug use, have been well delineated (e.g., Kalant et al., 1971; Martin, 1977). Finally, the role of withdrawal in the maintenance and cessation of such drugs has been empirically studied (Cappell and Leblanc, 1971).

In contrast, well-designed, systematic studies of abstinence from tobacco have been completed only in the last 5 years. Of the several possibilities to explain the lag in studying tobacco withdrawal, two appear salient. First, consensus that smoking is a drug dependence is a new phenomenon, only appearing in the 1980s (American Psychiatric Association, 1980; National Institute on Drug Abuse, 1983). Second, with a few exceptions (e.g., Grunberg, 1985), animal models of withdrawal so helpful with opiates and alcohol have not been well developed.

Recent interest in tobacco withdrawal may be due to several factors. One pos-

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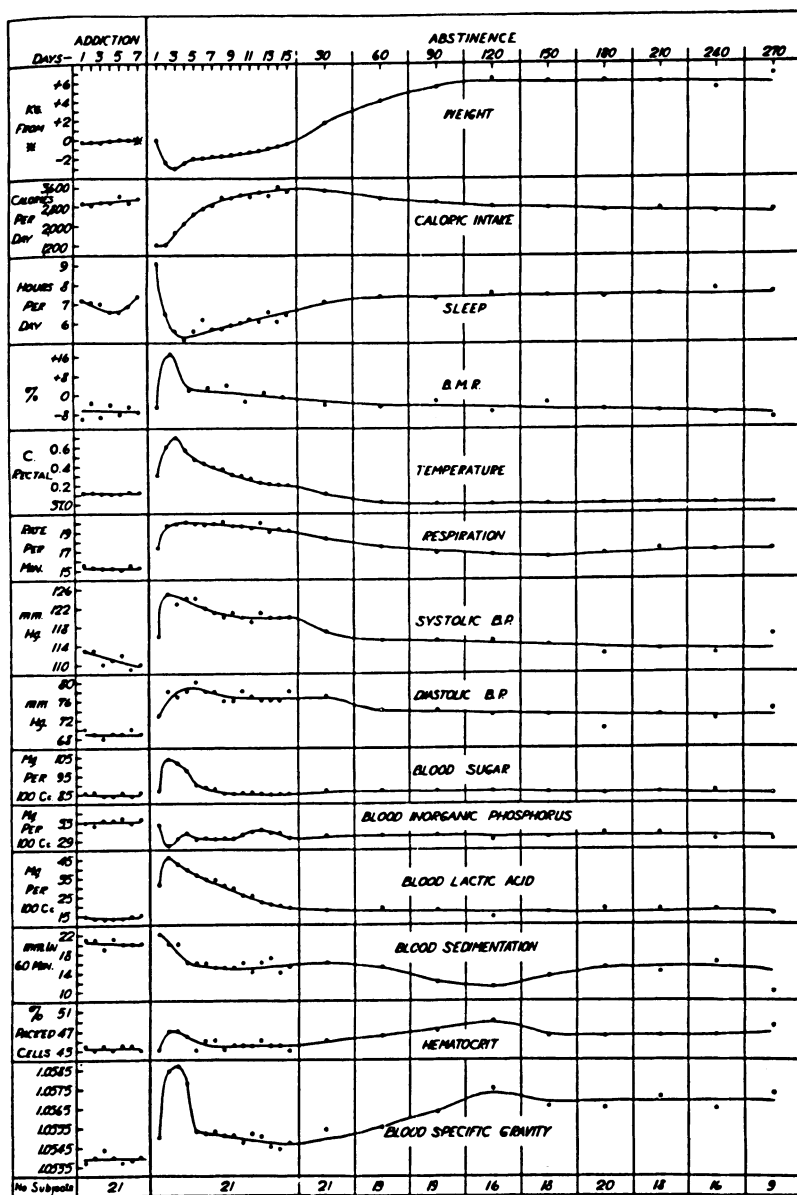


Figure 1. Opiate withdrawal signs and symptoms. (Reprinted with permission. From Himmelsbach, 1942, *Archives of Internal Medicine* 69: 764, copyright 1942, American Medical Association.)