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Citation: White, W. (2014). The early use of chloral hydrate, paraldehyde, chloroform, nitrous oxide and ether for intoxication. Posted at www.williamwhitepapers.com

The Use of Chloral Hydrate, Paraldehyde, Chloroform, Nitrous Oxide and Ether for Intoxication

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NOTE: The original 1,000+ page manuscript for Slaying the Dragon: The History of Addiction Treatment and Recovery in America had to be cut by more than half before its first publication in 1998. This is an edited excerpt that was deleted from the original manuscript.

Chloral hydrate was first produced by Justus von Liebig in 1832, although its hypnotic and sedative qualities were unknown at that time. These properties were discovered by Oscar Liebreich, who introduced the drug into medicine in 1869. An ancestor of the modern barbiturates and eventually replaced by those drugs, chloral was known as an excellent soporific (sleep-inducing drug), and at smaller dosages, as a Anervous sedative.@ In his 1872 lecture on chloral hydrate at Rush Medical College, Dr. J.H. Etheridge noted that superintendents of insane asylums gave chloral high praise for its ability to reduce symptoms of insanity (Etheridge, 1872). Many of the 19th-century secret remedies for nerve troubles gave the unknowing consumer liberal doses of chloral (Crothers, 1902).

Reports of chloral hydrate abuse began to surface in the late 19th and early 20th centuries. Its addictive potential was first reported by Dr. B.W. Richardson of London in 1871. H.H. Kane noted three categories of people who were particularly vulnerable to chloralism: people who took the drug to relieve chronic pain, alcoholics who used the drug to help them overcome sleep problems, and people who were by nature nervous and excitable (Kane, 1881; Abuse of Chloral Hydrate, 1880).

Although chloral hydrate was best known to the general public as the "Mickey Finn" or the "knock-out drops" of detective stories, its primary consumers and abusers were middle-class women. Doctors wrote that the misuse of chloral was common among the most affluent people and observed that "highly organized and sensitive people" seemed vulnerable to its influence. Chloral addiction in women appeared as a theme in early 20th-century literature, as in Edith Warton's The House of Mirth. It is likely that a wide variety of physical and emotional problems were self-medicated with chloral hydrate during this era. An interesting historical footnote about this drug: Cannabis (marijuana) was

sometimes used during this period to treat chloral hydrate withdrawal.

Paraldehyde, a non-barbiturate liquid sedative with a strong odor and bitter taste, was discovered in 1829 and introduced into medicine in 1881. It was commonly used in the treatment of alcoholic withdrawal until it was replaced by barbiturates, and then by benzodiazepines. As a withdrawal agent, paraldehyde was used to produce sleep and to prevent convulsions. Although a few reports of paraldehyde use for intoxication did surface over the years--particularly reports of its misuse by alcoholics, its unpleasant smell and taste made it one of the least attractive intoxicants.

Nitrous oxide, popularly known as "laughing gas," was discovered in 1772 by the English minister Joseph Priestley, the same man who invented soda-water. Nitrous oxide's potential as an anesthetic was first noted in 1799 by Sir Humphry Davy. Davy was the Superintendent of Experiments at the Pneumatic Institution in Bristol, England, and it was here that we find the first reports of the use of nitrous oxide for pleasure.

Nitrous oxide was introduced into dentistry and surgery by Dr. Horace Wells in 1844. The potential for widespread use of this drug as a surgical anesthetic was set back after Wells made a mistake in calculating the needed dosage. His patient woke up screaming in the middle of a surgical demonstration at the Massachusetts General Hospital in Boston. It is worth noting that Wells became addicted to chloroform and committed suicide in 1849, after an episode of intoxication in which he was arrested for running into the street and throwing acid on prostitutes (Nagle, 1968).
Occasional reports of nitrous oxide use for intoxication have popped up from the time the drug was introduced to the present. At the end of the 19th century, popular newspaper accounts told sensational stories of rich women treating their party guests with samples of nitrous oxide. (Kandall, 1996, p. 37) There are also periodic stories of famous supporters of the drug, like the Harvard psychologist William James, who wrote about the benefits of nitrous oxide intoxication as an element in religious experience.

Chloroform and ether were also used as intoxicants in the 1800s. Chloroform was developed in 1831 by two men at the same time: Samule Guthrie in America and Justus von Liebig in Germany (Grun, 1979). Inhaling chloroform as an intoxicant became a fad in the 1850s. Confessional accounts of its use as an intoxicant appeared in medical journals of the 1880s. These accounts, describing early chloroform intoxication as “love at first site” and a “heaven of chaste pleasures,” ended with tales of the user’s self-deception and gradual slide into “chloroformomania” (The Chloroform Habit, 1884, p. 251-254). Dr. T.D. Crothers noted that women were more vulnerable to chloroform addiction than men. Crothers also noted that most chloroform addicts were former users of alcohol and opium who began to seek relief from delirium and insomnia by taking chloroform. He believed that the power of chloroform addiction was every bit as strong as that associated with other drugs, and that the "memory of chloroform narcotism" was never forgotten by the user (Crothers, 1902, p. 287, 296).

Ether was first synthesized by Valerius Cordus of Prussia in 1541 (Nuland, 1988), but it wasn't brought to popular attention until it was rediscovered by the German physician Friedrich Hoffman in 1730. Hoffman christened his liquid form of ether "anodyne" and recommended it for pain. Ether was both drunk and inhaled enthusiastically in group sprees called "ether frolics."

The use of ether as an intoxicant became particularly popular in Ireland in the 1840s. Many of the Irish men and women who took the alcohol abstinence pledge as part of Father Mathew’s temperance campaign were ripe for an intoxicant to replace the alcohol. Norman Kerr marks the local doctor who began prescribing ether in water as the beginning of the Irish ether epidemic. Ether’s popularity grew even stronger when the tax on cheap whiskey increased.

This period in Irish history illustrates two enduring themes in the history of addiction. The first is that one drug tends to be effective as a substitute for another. The second theme is the likelihood that efforts to suppress one drug will be followed by increased use of other intoxicants. For some time, ether competed directly with alcohol for the affections of the Irish. Some even preferred ether because of its short-acting effects. If they were arrested for public drunkenness, they could be quite sober by the time they arrived at the police station proclaiming their innocence (Kerr, 1891).

The first popular account of ether addiction is an 1802 report of Londoner James Graham. The first medical report on ether addiction was an 1847 Lancet article about a gentlemen whose use progressed so far beyond his control that he needed "permanent restraint." Later medical reports note that the most common forms of damage from ether intoxication included gastritis, burns from smoking while using, and death from overdose (Nagle, 1968, p. 29).

Ether and chloroform were also used in surgery and dentistry. Ether was first introduced for surgical anesthesia in 1846 by William Morton, who demonstrated its success at the same hospital that had witnessed Horace Wells' failure a year earlier. Morton made his discovery based on observations of medical students participating in "ether frolics" (Mikuriya, 1969, p. 907). Occasional reports of chloroform and ether fads continued well into the 20th century, their users ranging from young students to high-society matrons in search of a novel high. There were also brief periods of more pervasive use, such as the popular use of cheap sulphuric ether in Wisconsin and Pennsylvania at the turn of the century (Crothers, 1902, p.82, 89). There were also some accounts of compulsive use, like the following 1915 report:

The very latest sort of drunkenness is that which, it has been discovered, comes from the constant inhalation of smelling salts. So great a hold has the smelling salts habit gained upon the modern woman that when she is deprived of them she experiences all the cravings that afflict the person who dearly loves alcohol and finds himself deprived of it (Greer, Albright & Smith, 1915, p. 76).

The Arsenic Eaters

Perhaps one of the strangest patterns of drug use in the late 19th and early 20th centuries was that of arsenic eating. It seems strange that people could become addicted to eating what is today known as a poison. But arsenic was used in medicine, both as a tonic and as a remedy for certain disorders (psoriasis, for example). It seems that people began taking arsenic in ever-increasing quantities to gain everything from improved appearance and increased strength to sexual excitability. Problems arose when their tolerance reached toxic levels, or when they suddenly stopped using and went into life-threatening withdrawal. Lewin's 1931 account of habitual arsenic users noted that this pattern was common in the Southern United States where arsenic eaters were called "Dippers" (Lewin, 1931, p. 322).

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