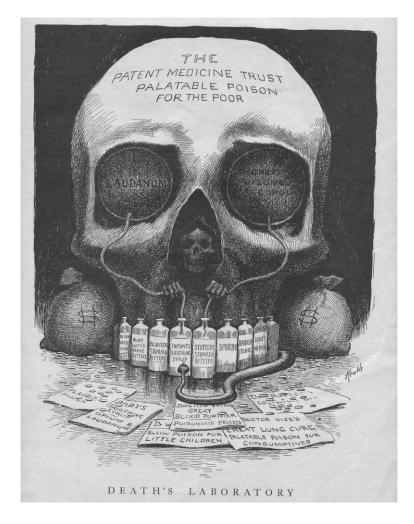
Paracelsus' Poison: Laudanum Abuse in America, 1750-1914

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A Brief History of Laudanum (Tincture of Opium)

Every 11 November, the world is reminded of the blood spilled in World War I by the appearance of the red poppy. The British began wearing them after the publication of John McCrae's 1915 poem, *In Flanders Fields*. The world was familiar with the poppy long before Remembrance Day, although the holiday brought a more respectable use for the flower. Historians are not sure if *papaver somniferum* originated in Egypt or the Balkans, though they do know that the plant was used to induce sleep or hallucinations, and to numb pain.¹ This particular poppy is more commonly known as the opium poppy. Poppies have a large botanical family consisting of twenty eight genera, and two hundred and fifty individual species. Of these two hundred and fifty, only two species are able to produce opium, and only one (*papaver somniferum*) produces a large quantity of it. The other species, *papaver bracteatum*, has a lower amount of opiates but is preferable for harvesting codeine. Conversely, *P. somniferum* produces a higher amount of alkaloids, including morphine, noscapine, papaverine, codeine, and thebaine.²



Figure 1. Papaver Somniferum.



Figure 2. *P. Somniferum* being tapped, with opium secretions.

Producing opium from this poppy is a laborious process and can only be done by hand. The plant has a growing period of one hundred and twenty days, requires temperate, subtropical regions of the Northern Hemisphere, low humidity, and long days. The petals drop off after the second day after blooming, revealing a round, green pod. Two weeks later opium harvesting begins. The pod must be scored (or "tapped") by hand up to six times with a sharp knife. Farmers must not cut too deep and risk losing the opium or too lightly, and not harvest enough.³ The milky sap that emerges is left to dry into a gum overnight and the farmers gather this the next day. Due largely to the laborious process of harvesting it opium has traditionally fetched a very high price on the market.

Opium has been used for thousands of years as a medicine. It was not until the 15th century that Philippus Aureolus Theophrastus Bombastus von Hohenheim (Paracelsus for short) realized that opium was more easily dissolved in alcohol than in water, which was the traditional method. He called his mixture laudanum – a variant of the Latin word for "praise", *laudare*. Paracelsus considered himself an alchemist and early recipes for laudanum called for twenty-five percent opium with a mixture of henbane,⁴ crushed pearls, bezoar stone,⁵ amber, musk, oils, bone from a stag's heart, and a unicorn.⁶ Paracelsus' mixture was only available to those with a great deal of money and came in a pill form.

It took nearly a century before laudanum became widely available to the public, thanks to the efforts of an Englishman named Thomas Sydenham. In 1676 he created his own recipe in a liquid form. The physician did not use

Paracelsus' mixture; rather, his called for two ounces of opium, one ounce of saffron, a drachm (more commonly spelled dram, one eighth of a fluid ounce) of cinnamon, a drachm of cloves, and a pint of Canary wine (a sweet white wine). Sydenham's recipe was readily available for the common Englishman and the recipe was in use throughout the nineteenth century. Other versions followed, including recipes requiring yeast, nutmeg, fermented crab-apple juice, pearls, coral, and amber.⁷ Various mixtures of Sydenham's recipe called for as much as ninety percent alcohol. Due to the bitter taste, users found it easiest to mix Sydenham's laudanum in their tea or coffee. Bram Stoker described laudanum as "acrid", while Louisa May Alcott felt it was "bitter". Thomas DeQuincey said it was red, Wilkie Collins said brown.⁸

England originally traded with the majority of opium producing countries. English farmers began growing their own around 1730. Poppy growing became a profitable occupation in the southern counties near Dorset or Somerset. British settlement of North America brought many changes. They brought as much as they could afford to bring, although high shipping costs meant it was necessary to pack lightly. Medical kits were considered important, particularly for those who had been physicians in England. These kits certainly contained laudanum which was in high use by the mid-18th century.⁹ Laudanum had become a panacea, used for everything from teething infants to easing the moment of death. "People were introduced to opium quite literally as soon as they left their mother's breast, and possibly before".¹⁰

A change of living space did not change medicinal or recreational habits. Known users of laudanum in the eighteenth century include King George IV (who used it as a relief from hangovers), Benjamin Franklin, and John Randolph of Roanoke.^{II} Benjamin Rush, the foremost American doctor and founder of the Philadelphia College of Physicians, both gave and took laudanum for pain relief.¹² Colonial opium trading was soon standard in comparison with England's.

For the layperson, laudanum was attractive because it was extremely efficient and inexpensive. Women with menstrual pains, babies with colic, or anyone with anything above a mild toothache were given laudanum and instructed to drink it at their discretion. Its main attraction was that it eased the symptoms of diarrhea, cholera, and dysentery – three of the largest health concerns of 18th century Americans. This research will show that there is a direct correlation between the availability of laudanum and addiction to it. Typically prescribed in grains, the average dose was twenty to

twenty five drops of laudanum. This is roughly equivalent to one grain of opium or one mg of liquid opium.¹³ Twenty-five grains brings about (in the average person) a great deal of pain relief and a sense of euphoria. Side effects include shallow breath, constipation, and xerostomia, or dry mouth. Addiction occurs quickly and brings on physical and psychological dependence. Many users felt that addiction was a price to be paid for pain relief as one British writer noted in 1613.¹⁴

"I feel, O Laudanum, thy power Divine..."¹⁵

Until the professionalization of the medical field in the mid-19th century Americans were largely left to their own devices when in need of medical care. The three modern stratifications of medical practitioners, doctors, physicians, and surgeons simply did not exist. There were three types of medical healers: domestic, physician, and lay people.¹⁶ One would often find all three in even modest sized cities. The groups largely worked around each other to cure the sick with differing methods and differing levels of success.

Domestic healers were akin to the modern-day homeopaths. For domestic healers there were natural causes for every ailment and natural ways to cure them, such as roots, poultices, and teas, for example. Domestic healers were often family members with minor training and they often argued against the professionalization of medicine. In the 19th century, domestic healers challenged physicians with the explanation that professionally trained physicians charged a great deal of money with little to no promises as to the efficacy of their treatments.

Colonial physicians, for their part, were largely subscribers of heroic medicines. This involved purging, bleeding, and teaspoonful doses of mercury and lead. With no understanding of germ theory physicians were responsible for the well-being of their patients based on the millennia-year old idea of humorism.¹⁷ Under this theory each person needed to balance the four types of fluids found in their bodies – blood, yellow bile, black bile, and phlegm. A deficiency or excess of any one of these fluids made one sick. For example, a person with an excess of black bile was depressive and moody. A

successfully cured patient credited their physician. A patient's death, however, was the result of fate. Too many dead patients and the physician could face criticism from their community, losing both respect and money.

The third category, lay people, consisted of the average American. Too poor to afford the services of either domestic healers or physicians they would tend to themselves and their families as best as they could. By using herbs or nostrums the lay person would take on the responsibilities of setting bones, treating yellow fever, malaria, dysentery, snake bites, or any number of maladies that might befall a colonial American.¹⁸ This type of medical practice was purely self-taught and often this group consisted of women.

In 18th century society, all three categories could have access to pharmacopeias, medical texts giving directions for the use of treatments. Early pharmacopeias also contained recipes. For hemorrhoids, William Buchan's wildly popular *Domestic Medicine: Or, A Treatise on the Prevention and Cure of Diseases by Regimen and Simple Medicines* recommended two ounces of emollient oil, half an ounce of laudanum, and the yolk of one egg. The ingredients were to be used as a liniment.¹⁹ Another popular physician, Robert Whytt, recommended in 1765 that enemas of laudanum and water be given to ease disorders of the nervous system.²⁰ Works such as these, as well as the *Pharmacopoeia Officinalis and Extemporanea* (John Quincy, 1774) were published for both the domestic healer and professionally trained physician.

By the close of the 18th century, physicians were pushing for a change in medical training. They wanted American medical training to be as stringent as British training in order to professionalize the industry. Apprenticeships were still the most common form of medical training.²¹ Classically trained physicians such as John Morgan argued for the establishment of strict colleges to train physicians. Many also argued for the dismantling of the institution of domestic and lay healers. Physicians such as Morgan would not see their goal come to fruition until well into the 19th century. Medical colleges multiplied after the War of 1812, but many were colleges in name only. The tuition was low, and the standards of teaching were even lower. Most schools required two years' worth of study. New information was introduced in the first year, and repeated in the second year. In the second half of the 19th century, education became more rigorous, as students were required to complete Latin and philosophy courses, a three year apprenticeship, and two terms of lectures.

Many colleges failed to enforce these new requirements.²² The battle for the professionalization of the medical field continued to rage through the 19th century.

While this was happening, laudanum rose in power as a favorite among medicines. It still was one of the most easily accessible and potent medicines available. Martin Booth noted that this made the drug ripe for misuse. "Once opium was widely accepted as a medicine, it soon gained popularity as an intoxicant".²³ This was very evident in popular literature. In 1765, George Psalmanazar published his *Memoirs of ****, Commonly Known as George Psalmanazar*. He writes frequently about laudanum use, sometimes claiming to only use ten to twelve drops,²⁴ and sometimes stating his usage was closer to ten to twelve teaspoons morning and night, "and very often more".²⁵ The memoirs are so full of fiction that it is nearly impossible to tease out what is actually true and what is a laudanum-induced fantasy.²⁶ As discussed later, 19th century authors would take this to a much higher level.

18th Century Opposition to Laudanum

Laudanum was not without its critics. By the early 18th century, authors and physicians warned the public at large of the dangers of opium in all its forms. The first recognized work to do this is Dr. John Jones' *The Mysteries of Opium Reveal'd* (1701). In this work, Dr. Jones described in detail the "intolerable distresses."²⁷ Among these distresses were physical dependence, shallow breathing, constipation, depression or dysphoria, itchiness, cold-like symptoms, insomnia, muscular cramping, nerves or anxiety, and nausea or vomiting. By the beginning of the 19th century newspapers reported suicide cases from overdoses of laudanum.

At the beginning of the 19th century medical professionals worked hard to claim legitimacy over domestic and lay healers. Changes in gender structure played a large role in the makeup of healers. Women saw their roles as midwives lessened by male influence. Although the gender of medical practitioners changed, there were few changes in the actual medicines used to treat patients. Laudanum was still one of the most heavily prescribed medications, particularly for women. It was highly regarded as a way to ease childbirth or menstrual pains or to cure nerves. James Ewell, a noted early American physician, published in his 1819 work *The Medical Companion* that pregnant women should take laudanum early in the pregnancy to alleviate morning sickness.²⁸ Ewell recommended the use of laudanum for sixty-three ailments, including emotional outbursts, smallpox, flatulence, and prevention of miscarriages.²⁹ It should be noted that in most of these ailments, Ewell recommended laudanum as a pain or symptom reliever. In every case he recommended that the patient take laudanum orally.

Just as there were no gender differences in laudanum users, there were also no differences in race. Plantation owners made the medicine available to sick enslaved workers. David Collins, a British plantation owner, advised other owners to provide proper food and clothing to enslaved workers in order to capitalize on slave labor.³⁰ Collins explains the need to give heavy doses of laudanum to workers, to keep pain low and disease away. Later in the 19th century, Americans were shocked to read as Cassy – a slave – narrated:

"In the course of a year, I had a son born. O, that child!—how I loved it! How just like my poor Henry the little thing looked! But I had made up my mind,—yes, I had. I would never again let a child live to grow up! I took the little fellow in my arms, when he was two weeks old, and kissed him, and cried over him; and then I gave him laudanum, and held him close to my bosom, while he slept to death. How I mourned and cried over it! and who ever dreamed that it was anything but a mistake, that had made me give it the laudanum? but it's one of the few things that I'm glad of, now. I am not sorry, to this day; he, at least, is out of pain. What better than death could I give him, poor child!"³¹

Laudanum was on the rise in literature – particularly English Romanticism – by the mid-19th century. One of the most groundbreaking works was Thomas DeQuincey's *Confessions of an English Opium Eater* (1821). DeQuincey began his career as an essayist to help pay bills. He first published his confessions as an article for a London newspaper. The work was divided into two parts – the first part was his introduction and background of his life. The second part contains three

subsections – "The Pleasures of Opium", "Introduction to the Pains of Opium", and "The Pains of Opium". "The Pleasures of Opium" is a much larger section than the last two. Many felt that he was glorifying the abuse of laudanum with this, and DeQuincey was criticized. The work was a huge success, though, and ran through several editions. Of laudanum, he had this to say:

> "Here was a panacea for all human woes; here was the secret of happiness, about which philosophers had disputed for so many ages, at once discovered; happiness might now be bought for a penny, and carried in the waistcoat pocket; portable ecstasies might be corked up in a pintbottle; and peace of mind could be sent down in gallons by the mail coach."³²

Of the pains of laudanum, DeQuincey is frank. The overuse of the drug had left his ability to concentrate or process thoughts minimal. Once a voracious reader, he was no longer able to enjoy books. He hallucinated when awake and had nightmares when asleep. Time slowed and depression set in. When he realized what was happening to him, DeQuincey made an effort to decrease his drug usage, beginning with seven hundred and thirty drops a week in week one. By week five DeQuincey had reduced his usage to two hundred and sixty drops. He relapsed several times throughou this process. In the 1856 edition of the work, he made an addition discussing the scientific aspect of withdrawal and drug dependence. He was not the first to do so; other scientists had already used the book as a study on addiction.

With the resounding success of *Confessions of An English Opium Eater*, literature influenced by laudanum began to populate bookshelves. Samuel Taylor Coleridge – author of *The Rime of the Ancient Mariner* and *Kubla Khan* – was a known laudanum addict who was likely treating bipolar disorder. Elizabeth Barrett Browning's addiction stemmed from a spinal injury.³³ Wilkie Collins used laudanum to ease arthritis, gout, and bronchitis so excessively that his writing was hindered.³⁴ Lord Byron, Percy Bysshe Shelley, and John Keats all made suicide attempts involving overdoses of laudanum.³⁵ Art imitated life, and even those writers not under the hold of drug abuse created characters that were. Louisa May Alcott,

Anne Brontë, Charlotte Brontë, Bram Stoker, Mary Shelley, and Honoré de Balzac all created major literary figures who frequently used laudanum.³⁶

Edgar Allan Poe was notably influenced by laudanum and other forms of substance abuse. Of laudanum, he said, I went to bed and wept through a long, long hideous night of despair. When the day broke, I arose and endeavored to quiet my mind by a rapid walk in the cold, clean air. But all would not do; the demon tormented me still. Finally I procured two ounces of laudanum. I am ill in body and mind, that I feel I cannot live until I subdue this fearful agitation, which if continued will either destroy my life or drive me hopelessly mad.³⁷

Poe also attempted to commit suicide on 5 November 1848 with an overdose of laudanum.³⁸ By the mid-19th century, it was no difficult task to find laudanum or a laudanum user in any American city. It was as common as Acetaminophen is to 21st century Americans.

By 182D, however, scientists had developed a much stronger pain reliever, also made from opium and the poppy. Morphine had come to the world's stage through a Westphalian scientist named Friedrich Wilhelm Adam Sertürner. Physicians considered it preferable because morphine could be introduced subcutaneously. English physicians put forth the idea that by injecting patients with morphine they could circumvent addiction.³⁹ Very quickly, morphine addicts were created through the easy use of morphine.⁴⁰ Just as quickly as laudanum had become popular, so had morphine. This did not decrease laudanum sales or usage for the average person. It simply created a shift in what the average laudanum user looked like. Prior to the introduction of morphine, the average laudanum user was the middle class woman. With the advent of a more powerful painkiller, the average laudanum user became the lower class. Middle and upper class men and women had easy access to morphine, dropping the price of laudanum.

This led to further abuse of the drug. With such a potent and accessible pain killer available in every store, apothecary, or patent medicine cart, abuse only grew. While it was still considered a legitimate medicine to be used for

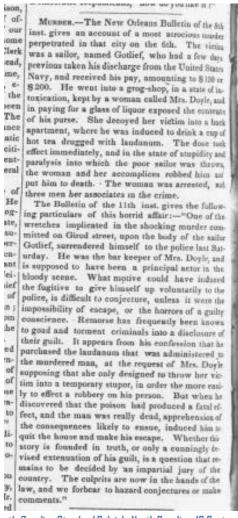
serious issues, laudanum was also seen by 19th century Americans as the easiest way to get away from their troubles.

"Certainly, the fashion for nurturing illness may have been responsible in part for conditioning the mind to prefer opium to alternative treatments. The ease with which it could be purchased, the acceptance of it as a panacea and the lack of alternatives were important factors."⁴¹ This in turn led newspapers to spend a good deal of ink printing death notices and news stories on suicides by overdose. Throughout the Jacksonian era, suicide by overdose became more common.

Suicide.—Mrs. Ellen Jordan, residing in Brown street, in this city, commited suicide yesterday by drinking laudanum. She was a-bout 37 years of age, and has left a husband and three children.—Portland Argus. correspondent of the Albumy A

Vermont Pheonix, Brattleboro, Vermont, 7 April 1836

Suicide and addiction were not the only nefarious uses for laudanum. The 19 September 1838 issue of the *North Carolina Standard* reported:



The North-Carolina Standard, Raleigh, North Carolina. 19 September 1838.

Growth and Professionalization of the Medical Field

It was at this time that the American Medical Association was formed by several physicians who sought to hold the medical community accountable for patient care (1847). Although largely not impactful until the 20th century, the AMA took steps to monopolize the medical practice and limit the field to only its approved members- as opposed to lay and domestic healers. The AMA also pushed heavily for reform in medical colleges, although most colleges failed to comply.⁴² Licenses were not yet required to practice medicine and this benefited so-called individual doctors. For the largest number of healers, individual medicine practice relied largely on pushing a particular product. Those who subscribed to humorism found themselves bleeding their patients for most all ailments. In order to alleviate some of the pain or dizziness associated with bleeding, these physicians were giving their patients laudanum before or after being bled. Domestic healers were using teas and poultices to relieve inflammation and pain. Many of these poultices contained laudanum as a local anesthetic. Lay healers most often used patent medicines due to their affordability. The majority of patent medicines contained laudanum at least in small doses. The goal of the AMA was to narrow the category of healers, require extensive study, and raise the level of responsibility of medical healers.

As medical colleges began to adhere to these standards in the latter half of the 19th century the rate of laudanum abuse dropped. One of the reasons for this was physician use of morphine. Many laudanum users became morphine addicts. The Civil War bolstered this, although many soldiers would find after the way that morphine was more accessible than laudanum.

Laudanum and the Civil War

By the mid-19th century, laudanum was being produced on American soil by American physicians. The states that grew the largest amount of *P. somniferum* were Georgia, South Carolina, Tennessee, and Virginia- although the plant could be found throughout the entire country.⁴³ As the casualties of the war grew, so too did the need for effective pain killers. Morphine was used far more internally during the war and surgeons used laudanum as a local anesthetic. "During the war, approximately ten million opium pills and nearly three million ounces of opium powders and tinctures were distributed to Union forces alone to combat diarrheal diseases and relieve the pain of battlefield wounds."⁴⁴

The *Medical and Surgical History of the Civil War* lists over one hundred surgical records using laudanum. The largest examples of its usage were as a local anesthetic; often the laudanum was applied to a cloth with lead water, hydrochloric acid, or cold water, and applied to the amputation site. This was not always the case- Corporal A. A. Lepper of Co. L. 8th lowa Cavalry was wounded at the Battle of Cassville in 1864. His left leg required amputation, and to ease his pain

post-surgery, the surgeon ordered two ounces of whiskey and forty drops of laudanum.⁴⁵ In the case of Private James McGeehan of Co. K, 107th Pennsylvania, a thich would led him to be hospitalized. Once there the physicians ordered a laudanum enema to stave off diarrhea.⁴⁶ Laudanum was not always used surgically; Private J. A. Robbins of Co. I, 143rd Pennsylvania suffered from a cardiac disorder in 1864. He was given a dose of ether and afterwards, one hundred drops of laudanum by the physician. After the one hundred drops had worn off the physician ordered an hourly dose of twenty-five drops until Private Robbins slept peacefully.

Common soldiers were not the only ones in need of laudanum. One of the most often repeated rumors surrounds Confederate Lieutenant General John Bell Hood. Definitive proof has never surface of Hood's addiction, although many scholars have used laudanum or alcohol to explain his actions. A Kentucky native, Hood graduate in 1853 from the United States Military Academy at West Point. By the time the Civil War began Hood was living in Texas. He joined the Confederate army as a captain of the cavalry and was quickly promoted to colonel. From there, he was again promoted to brigadier general. Hood's Texas Brigade mad a significant impact on several key battles. Hood himself was known as a daring and aggressive leader. After the Battle of Antietam he was promoted to major general.⁴⁷

Hood's first injury came at the Battle of Gettysburg in July 1863, when an artillery shell exploded and damaged his left arm. This wound did not require amputation, but he was unable to use the arm for the rest of his life. He was wounded again at the Battle of Chickamauga in September 1863, requiring his leg to be amputated just below the hip. He was transferred west, eventually replacing General Joseph E. Johnston as commander of the Army of Tennessee. After a series of costly battles around Atlanta and the disastrous Tennessee campaign, General P. G. T. Beauregard replaced Hood with Lieutenant General Richard Taylor.

The largest speculation on Hood's opiate addiction come from the specific surgeries that he underwent as well as his behavior in later campaigns. This speculation was first introduced in 1940 by Percy Hamlin in *Old Bald Head: General R. S. Ewell.*⁴⁸ The authors that speak of it are careful to use the words 'perhaps', 'may have been', or 'possibly'- as Wiley Sword does in *Embrace an Angry Wind: The Conderacy's Last Hurrah- Spring Hill, Frankin, and Nashville.* Sword states, "By

about 9:00 pm Hood had unstrapped his artificial leg, perhaps swallowed some laudanum (a tincture of opium), and was soon in bed and asleep."⁴⁹ In another section, Sword states with more confidence, "His crippled left arm and missing right leg drained him physically, and he often resorted to the use of laudanum."⁵⁰ Author Stephen Hood is much more skeptical, however. In *John Bell Hood: The Rise, Fall, and Resurrection of a Confederate General,* he devotes an entire chapter to the laudanum controversy. In this, the author gives a brief historiography of the laudanum speculation and his assessment of the invalid claims each author makes. Importantly, he notes that Hood spent a great deal of time with Jefferson Davis, who never noted signs of addiction.⁵¹ Although there is no definitive proof of Hood's laudanum usage, the specific wounds he suffered were typically treated with laudanum, morphine, and alcohol. If he was in fact addicted this would have seriously clouded his judgment and faculties in carrying out the momentous task of commanding an army on campaign.

Postwar Usage and the Decline of Laudanum

Although the war ended, the soldiers' need did not fade. Many thousands of men were left with dramatically altered lives- lost limbs and shattered psyches both compelled these men to turn to opiates to numb the pain. The modern definition of addiction did not exist and records of addiction are difficult for historians to come by. The dangers of opiate overuse were known, as was drug tolerance. "Doctors, while mentioning addiction, were interested in their patients' loose morals, rather than their physical health. The word 'addiction' as a noun or the opium and morphine habits were not mentioned at all."⁵²

The earliest known claims that the Civil War created several hundred thousand opiate addicts first surfaced right at the turn of the 20th century. Some estimates range from 80,000 to 100,000 soldiers being addicted at the end of the war.⁵³ Opium importation increased in the 1870s. From 1869-1870, the United States Commissioner of Agriculture reported an importation of 254.609 pounds of opium, valued at \$1,776,908. This made opium the fourth largest import, behind coffee, tea, and india-rubber, in that order.⁵⁴ There were great changes to the medical field in the postwar period. Physicians finally had the legitimacy they had been striving for and domestic and lay healers were all but completely eradicated. Physicians were developing closer relationships not just with patients, but also with other physicians; they were also gaining legitimacy with the state. Slowly throughout the 1870s and 1880s, states were passing licensing laws as part of a larger trend on professionalization. The medical field benefited from this greatly. Post-1900, the AMA still worked to address their main issue: control of medical education. They came one step closer to their goal in 1904 by establishing the Council on Medical Education. This council set a standard of four years of high school, four years of medical training, and receiving a license. The council recommended that physicians also complete one year of science and anatomy course (now considered premedical training) and a year of hospital internship.⁵⁵ They began to grade medical schools and set up strict codes of ethics. Schools that had been given the highest grade by the AMA began to charge more for tuition, thus limiting their student body- this made them more elite. The backing of the AMA carried much weight. Medical care became more about professionalization and standardization than it had ever been in American history. Physicians looked to science to answer questions about the human condition.

Attempts to Rehabilitate Addicts in the Progressive Era

Rehabilitation centers for opiate abuse existed in America as early as the 1860s. The average American would not have been able to easily afford leaving home to complete rehabilitation, however. Instead, addicts sought the cure from the same source that had been providing laudanum: mail order catalogs. The 1897 Sears and Roebuck catalog sold laudanum in one, two, and four ounce bottles on page forty-one and the "Reliable Cure from the Opium and Morphine Habit" on page forty-five.⁵⁶



Sears and Roebuck Catalog, 1897, page 45.

The ingredients are not listed, however. Other popular attempts to be rid of addiction included using marijuana, codeine, heroin, and cocaine.⁵⁷ The most cautious addicts preferred to wean themselves gradually from laudanum. Two authors-Thomas DeQuincey and Horace Day- published their accounts of breaking laudanum addiction.

Day was inspired by DeQuincey's 1821 account, Confessions of An English Opium Eater. In his 1868 The Opium

Habit: with Suggestions As To The Remedy, he traced his six week journey. The first week, he noted an intake of 7,625 drops

of laudanum, and through a very steady decline his sixth week only included ninety-three drops over the course of five

days.⁵⁸ DeQuincey's decline did not start in such a lofty place- the first day of rehabilitation he only took one hundred and thirty drops. The largest difference between Day and DeQuincey's attempts at recovery is that DeQuincey relapsed several times, with no days of laudanum use at all followed by a day with over two hundred drops of laudanum recorded. Day noted earlier in his work that he had attempted several times over a period of years to abandon his addiction, although every method failed.⁵⁹

Day included in his work an essay from a friend, Fitz Hugh Ludlow. Ludlow himself was an addict- he took a teaspoon of morphine in his daily whiskey- and he understood the need for a for a true rehabilitation center. In his ideal, this rehabilitation center would provide fresh, expertly prepared food, beautifully furnished room with pianos and decorated walls, "unblemished taste in furniture and carpets," billiards, a library, card room, elevators, and guest suites for family.⁶⁰ Ludlow's dream for more inclusive rehabilitation centers would not be realized during his lifetime, but have existed since the 20th century. Ludlow died the day after his thirty-fourth birthday, while attempting to recover from his addictions and tuberculosis.

Anti-Laudanum Legislation

While the United States was struggling with addiction and what to do with addicts, the AMA was gaining strength and becoming a more modern medical society. Physicians were now completing rigorous courses and becoming licensed. Domestic and lay healers had been on a rapid decline since the end of the Civil War. The medical field was modernizing, particularly with the introduction of germ theory. Physicians began to look at addiction through the same scientific lens as they had other diseases. As they were doing this, physicians recognized the need to make addictive substances unavailable on a large scale. Influence from the AMA led many states to pass legislation limiting the sale or production of opiates.

California was the first to do so in 1872. This state struggled the most with opiates, due largely to the influx of Chinese Americans who had brought opium with them as they immigrated. The 1872 legislation made "the administration of

laudanum, an opium preparation, or any other narcotic to any person with the intent thereby to facilitate the commission of a felony" a felony in itself.⁶¹ That same year California created a government agency to enforce narcotic laws. Two years later, Connecticut passed law stating that addicts were deemed incompetent and would be committed to state asylums for medical care. Nevada made the sale of opium without a doctor's prescription illegal in 1877.⁶²

The need for this legislation was great. Laudanum was still in heavy use, particularly among women. These women were working long hours, managing households and working excessively to earn money for their families. Physicians noted that some mothers gave laudanum freely to their children to keep them calm while the women worked. An 1881 medical journal noted that Dr. T. C. Wallace was called to a house by a father for his sick child. Upon arrival, the physician noted that the child was comatose, covered in perspiration, pale, and had a weak pulse. The mother did not know how many drops she had given the eight-month-old infant; she was dosing by the teaspoonful. Dr. Wallace recreated the mother's dosage and measured two drachms- a quarter of an ounce.

On my expressing surprise that it had not killed the child outright, she said she had often given it half a teaspoonful. Her husband brought from the pantry a three-ounce vial, containing less than one ounce of laudanum, and informed me it was the fifth vial of laudanum that size which had been given to the child; making fourteen ounces of laudanum administered to the child during the first eight months of its life.⁶³

Another 1888 physician noted a case of a woman who had taken two and a half ounces of laudanum (reason unknown)- an equivalent of 1,475 drops. She was given a derivative of nightshade and two pearls of amyl nitrite before she awoke. The only note from the physician on her recovery was that she "requested (not very politely) to be left alone."⁶⁴ Physicians were recording large numbers of overdoses that were frequent and severe, and the largest numbers of those treated were women. A. T. Schertzer, a physician from Baltimore, noted that his patient- a twenty eight year old woman-consumed 5,480 ounces of laudanum in 1870.⁶⁵ This averages out to sixteen ounces a day for twenty four hours straight.

Sixteen ounces equals a pint, or 9,440 drops of laudanum per day for twenty four hours consecutively. It was this kind of abuse that led to anti-opium legislation.

Throughout the early 20th century, legislation continually passed that affected the sale or importation of laudanum greatly. The largest push for this came from the American Medical Association, who had standardized and became a professional front by this time. Already, the country had taken a turn away from unlicensed country doctors to rigorously trained physicians. Books were written on the subject of addiction and temperance societies paraded the streets with the message of the "demon" alcohol. Patent medicines still covered the shelves though, and they were still widely affordable. Physicians and legislators alike made it their goal to put an end to this availability on addictive substances. Laudanum was not their only goal; these men also campaigned for the end of open access to cocaine, heroin, marijuana, and morphine.

This became a reality in 1914 with the passage of the Harrison Narcotics Tax Act. It is named after the United States Representative Francis Burton Harrison of New York, who proposed the act. Prior to the Harrison Tax Act's passage, the United States government had passed the Pure Food and Drug Act of 1906- this required makers to label products that contained cocaine and heroin. The Harrison Act regulated the importation of opiates and cocaine by requiring a special tax on anyone who produced, imported, made, sold, or gave away opium or coca leaves, their salts, derivatives, or preparations. The impact on the opium trade was felt immediately, and physicians acted quickly on their part. They severely limited prescriptions of opiates including laudanum and advised against patent medicines.

For many, patent medicines were still the first and last resort for illness. The 1905 Sears and Roebuck catalog lists many patent medicines for sale- eleven of which contained laudanum. These are Allen's Lung Balsalm, Antikamnia Tablets, Ayer's Cherry Pectoral, Beecham's Cough Pills, Hall's Balsam for Lungs, Hamlin's Wizard Oil Liniment, Jayne's Expectorant, King's New Discovery, Petitt's Eye Salve, Radway's Ready Relief, and St. Jacob's Oil. To combat the popularity of these deviously designed poisons, the AMA published *Nostrums and Quackery: Articles on the Nostrum Evil and Quackery Reprinted from the Journal of the American Medical Association* in 1911. In particular, they noted, "It is believed that a perusal of the cases here presented will so plainly show the fraud, greed, and danger, that are inseparable from 'patent medicine' exploitation and quackery that the reader much perforce be protected in no small degree from this wide-spread evil."⁶⁶

Conclusion

American medical care in the colonial and Jacksonian eras lacked structure and regulation. Self-medication and a lack of scientific understanding of human anatomy caused thousands to undergo harmful treatment. Addiction to laudanum, morphine, cocaine, thebaine, codeine, and alcohol were prevalent in early American society, and were treated differently- as a side effect of health. It was not until the late 19th century and the growth of scientific understanding that the medical field began to progress. By that time, the damage had been done to American society. The rise of the American Medical Association ensured a standardization of medical care that led to the passage of legislation such as the Pure Food and Drug Act (1906) and the Harrison Narcotics Tax Act (1914). These were followed with subsequent legislation that only strengthened the anti-drug and anti-addiction stance of the United States government. The Supreme Court ruled in *United States v. Doremus*, 249 U. S. 86 (1919) that a physician could refuse opiates to a patient who was clearly addicted. The amount of opium importation dropped, limiting the available supply.

The Harrison Narcotics Tax Act of 1914 was followed by the Uniform State Narcotic Act of 1932 and the Controlled Substances Act of 1970. Currently, laudanum is a Schedule II drug, meaning that under the Controlled Substances Act, it has a high potential for abuse, will lead to mental and physical dependence, and has an accepted medical use.⁶⁷ Under this system, a patient receiving laudanum would require a written prescription and would not be able to receive refills without returning to their doctor. The drug is no longer as available as it once was; subsequently, the number of laudanum addicts has decreased substantially.



- ⁴ *Hyoscyamus Niger*, a flowering plant.
- ⁵ Paracelsus' bezoar stone would have been found in cow intestines.
- ⁶ Booth, 26. The 'unicorn' would have been a rhinoceros or a narwhal horn.

 ⁸ Barbara Hodgson, In the Arms of Morpheus: The Tragic History of Laudanum, Morphine, and Patent Medicines (New York: Firefly Books, 2001), 48.

- ¹¹ Ibid, 30.
- ¹² David Freeman Hawke, *Benjamin Rush: Revolutionary Gadfly* (Indianapolis: Bobs Merrill, 1971), 397.
- ¹³ A grain is the smallest British weight, which is one seven thousandth of a pound. As discussed later, those committing suicide took doses as large as one hundred grains.
- ¹⁴ Booth, 30.
- ¹⁵ Roger Lonsdale, ed, *The New Oxford Book of Eighteenth-Century Verse* (New York: Oxford University Press, 1987), 113.
- ¹⁶ Paul Starr, *The Social Transformation of American Medicine: The Rise Of A Sovereign Profession And The Making Of A Vast Industry* (New York: Basic Books, 1982), 30.
- ¹⁷ For more information on the four humours, see Noga Arikha, *Passions and Tempers: A History of the Humours*.
- ¹⁸ Starr, *The Social Transformation of American Medicine*, 30.
- ¹⁹ William Buchan, *Domestic Medicine: Or, A Treatise On the Prevention and Cure of Diseases by Regimen and Simple Medicines* (London: Strahan Publishers, 1790), 393.
- ²⁰ Robert Whytt, Observations on the Nature, Causes and Cures of those disorders which have been commonly called Nervous Hypochondriac, or Hysteric to which are prefixed some remarks on the Sympathy of the Nerves (Edinburgh: J. Balfour, 1765), 475.

- ²³ Booth, 57.
- ²⁴ George Psalmanazar, Memoirs of ****, Commonly Known as George Psalmanazar (London: R. Davis, 1765), 50.
- ²⁵ Ibid.

- ²⁷ John Jones, *The Mysteries of Opium Reveal'd* (London: R. Smith, 1701), 32.
- ²⁸ James Ewell, *The Medical Companion* (Philadelphia, 1819), 492.
- ²⁹ A more full list of ailments includes: lockjaw, insomnia, diarrhea, constipation, upset stomach, coughs, sore eyes (he recommended using laudanum eye drops), chest pains, inflammation of the intestines or bladder, headaches, earaches, toothaches, rheumatism, measles, consumption, hemorrhoids, dysentery, hysterics, stomach cramps, heart palpitations, hiccups, asthma, indigestion, colic, cholera, gout, gonorrhea, jaundice, chilblains, burns, boils, any wound, necrosis of a limb, bruises, morning sickness, labor, watery head (migraines), and whooping cough.
- ³⁰ David Collins, *Practical Rules for the Management and Medical Treatments of Negro Slaves in the Sugar Colonies* (London: J. Barfield, 1803).
- ³¹ Harriet Beacher Stowe, *Uncle Tom's Cabin* (New York: Oxford University Press, 2002), 375.
- ³² Thomas DeQuincey, Confessions of An English Opium-Eater (Boston: Ticknor and Fields, 1821), 65.

¹ Martin Booth, *Opium: A History* (New York: St. Martin's Press, 1998), 4.

² Ibid.

 $^{^{3}}$ Ibid, 5.

⁷ Booth, 24.

⁹ Ibid, 47.

¹⁰ Booth, 61.

²¹ Starr, 40.

²² Ibid, 47.

²⁶ Hodgson, 39.

³³ Hodgson, 67.

³⁴ Ibid, 68.

³⁵ Ibid, 61-63.

- ³⁶ Stephen M. Weissman, His Brother's Keeper: A Psychobiography of Samuel Taylor Coleridge, Forum of the American Academy of Psychoanalysis, Spring/Summer 1992. Although not an American, English author Samuel Taylor Coleridge was a notorious laudanum addict. Weissman noted that Coleridge's use regularly equaled two quarts of laudanum a week, and up to a pint a day. This equals from 5,394 to 9,440 drops of laudanum per day. Two quarts a week cost Coleridge £5, a modern equivalent of \$34 USD per day.
- ³⁷ R.H. Stoddard, *The Genius and Life of Poe* (New York: A.C. Armstrong & Son, 1886), 166.
- ³⁸ J. Gerald Kennedy, ed., A Historical Guide to Edgar Allan Poe (New York: Oxford University Press, 2001), 56.
- ³⁹ Booth, 72.
- ⁴⁰ Booth, 73. One ounce of laudanum equals one grain of morphine, and laudanum users were taking in less opium than morphine users for even large doses.
- ⁴¹ Hodgson, 77.
- ⁴² Starr, 91.
- ⁴³ Booth, 73.
- ⁴⁴ Stephen Kandall, *Substance and Shadow: Women and Addiction in the United States* (Cambridge: Harvard University Press, 1996), 19.
- ⁴⁵ Joseph K. Barnes. *The Medical and Surgical History of the Civil War* (Wilmington: Broadfoot Press. 1990), 405.
- ⁴⁶ Ibid, 148.
- ⁴⁷ Ezra Warner, *Generals in Gray* (Baton Rouge: Louisiana State University Press, 1953).
- ⁴⁸ Stephen Hood, John Bell Hood: The Rise, Fall, and Resurrection of a Confederate General (El Dorado Hills: Savas Beatie Publishers, 2013), 268.
- ⁴⁹ Wiley Sword, Embrace an Angry Wind: The Confederacy's Last Hurrah- Spring Hill, Franklin, and Nashville (New York: HarperCollins Publishers, 1991), 136.
- ⁵⁰ Ibid, 244.
- ⁵¹ Hood, 273.
- ⁵² Jonathan Lewy, "The Army Disease: Drug Addiction and the Civil War", *War in History* 21, no. 1, 2013, 107.
- ⁵³ Ibid, 110.
- ⁵⁴ Report of the Commissioner of Agriculture for the year 1870, (Washington, D.C.: Government Printing Office, 1871), 206.
- ⁵⁵ Starr, 118.
- ⁵⁶ Sears and Roebuck Catalog, 1897, 45. The 'cure' cost seventy-five cents per bottle.
- ⁵⁷ Hodgson, 118.
- ⁵⁸ Horace Day, *The Opium Habit: with Suggestions As To The Remedy* (New York: Harper & Brothers Publishing, 1868), 70. The first week, Day noted that he took 2,000 drops on Saturday, 1,500 on Sunday, 1,250 on Monday, 1,000 on Tuesday, 750 on Wednesday, 625, and 500 on Friday. His usage very steadily declined until the sixth week, when he took 25 drops the first three days, 12 drops the next day, and 6 drops the last day of his record. At the beginning of his rehabilitation, Day was imbibing the equivalent of 83 drops per house, or 1.4 drops per minute for twenty four hours straight.

⁵⁹ Ibid, 14.

- ⁶¹ Samuel Levine, *Narcotics and Drug Abuse* (Cincinnati: W. H. Anderson, 1973), 96.
- ⁶² Caterina G. Roman, Illicit Drug Policies, Trafficking, and Use the World Over, (Plymouth: Lexington Books, 2005), 22.
- ⁶³ T. C. Wallace, "Large Amount of Opium to a Child", *The Medical and Surgical Reporter*, volume 44, (Philadelphia: Crissy & Markley, 18810, 350.
- ⁶⁴ R. W. Amidon, ed., The Medical Analectic: A Monthly Epitome of Progress in All Divisions of Medico-Chirurgical Practice, volume 5, (New York: G. P. Putnam's Sons, 1888), 314.

⁶⁰ Ibid, 334.

⁶⁵ Kandall, 14.

 ⁶⁶ American Medical Association, Nostrums and Quackery: Articles on the Nostrum Evil and Quackery Reprinted from the Journal of the American Medical Association, (Chicago: Press of the American Medical Association, 1911), 8.

 ⁶⁷ Patricia Younger, ed., *Physician Assistant Legal Handbook*, (Gaithersburg: Aspen Publishers, 1997), 113.