

### Disclosures and Conflict of Interest

Dr. Singla declares no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings and honoraria

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### Objectives

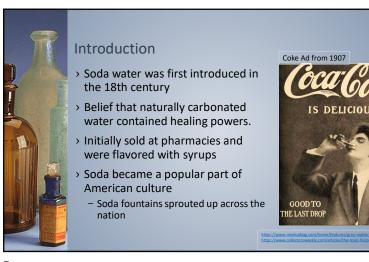
At the conclusion of this program, the pharmacist will be able to:

- 1. Describe why soda fountains originated in drug stores.
- Name early 20th-century laws/constitutional amendments that impacted the practice of pharmacy and the evolution of the soda industry.
- 3. Identify popular soda flavors of today that were invented by pharmacists.



All of your important questions will be answered

- > Which popular soda flavors where invented by pharmacists?
- > Who invented the malted milk shake?
- > Where was it legal to buy whiskey during prohibition?
- > How was soda kept cold before electricity?
- > Which Soda started out as a cocktail?
- > Why is Santa so jolly and wearing a red suit?
- > Which pharmacist invented soda was named after a gastrointestinal enzyme?



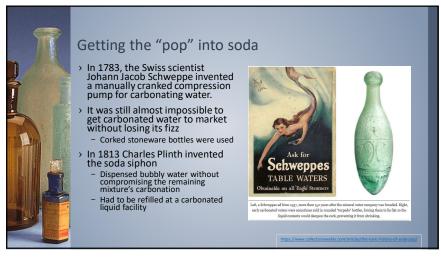


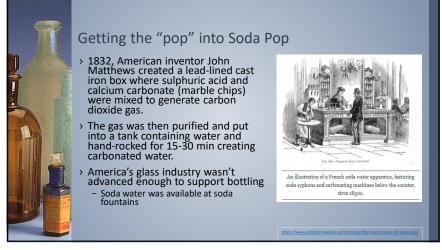
### Origins of Soda

- > In Europe, the healing powers of natural mineral waters have been prescribed for hundreds of years.
- > Bathing or drinking the water was thought to cure a wide variety of illnesses.
- > Packaging and transporting soda water was difficult, so chemists tried to make their own.
- It 1767 Joseph Priestley, the British chemist who identified oxygen, figured out a way to put carbon dioxide into water
  - used a fermenting yeast mash to infuse water with the gas

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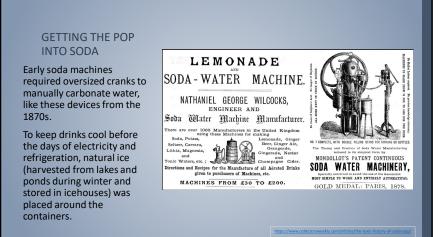
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# Benjamin Stillman: Creator of the Carbonated Drink Industry

- Chemistry professor at Yale College who believed that carbonated waters could be used as medicine
- > He designed a larger-capacity carbonation apparatus and opened two pump rooms in New York City.
  - These were designed with marble counters and ornate brass soda dispensers.
- > Stillman focused on the medicinal properties of soda water and he failed to see people were more interested in using it as a drink or mixer.
- As his company failed, the soda trend was catching, and successful fountains soon popped up in other cities like Philadelphia and Baltimore.

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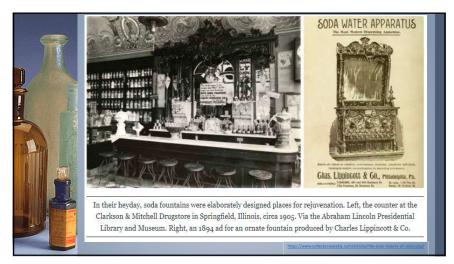
## Getting the "pop" in soda pop

- Pharmacist Jacob Baur started the Liquid Carbonic Company in 1888
- > His apparatus would take carbon dioxide out of the air and concentrate it in tanks.
- His Liquid Carbonic soda fountains were manufactured and marketed in the early 1900's and these made it easy for anyone to start a soda fountain
- > Syrup companies began to provide the pharmacist with free syrup dispensers in exchange for advertising.

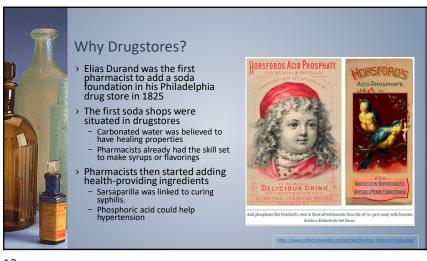


iquid Carbonic Co. Cherrie Punch syrup dispenser

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Soda Water and Narcotics

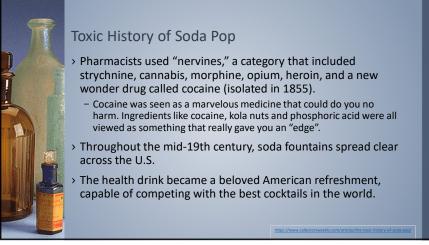
> Sodas of the 19th century also incorporated narcotics.

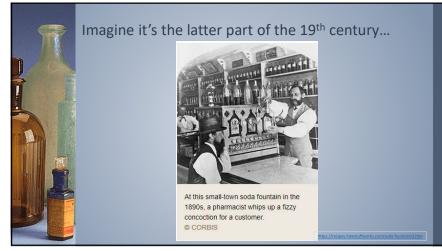
> Prior to the Pure Food & Drug Act of 1906, there were few legal restrictions on what could be put into soda-fountain beverages.

> Many customers came to soda fountains early in the morning to get a refreshing and "healthy" beverage to start their day off right

> "Bracer" and "pick-me-up" referred to the physical and mental stimulation sodas could provide

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# SODA JERKS Soda throwers or soda jerks, (after the jerking arm movement required to operate the taps), had to be just as skilled as bartenders at mixing drinks. Many bartenders started working at soda fountains. One of the most complete records of these innovative cocktails is DeForest Saxe's 1894 book entitled Saxe's New Guide, or, Hints to Soda Water Dispensers. Tulip Peach, Swizzle Fizz, Opera Bouquet and Almond Sponge Classic egg creams and flavored phosphates. An illustration of proper mixing form as published in Saxe's 1894 book.

### **Early Flavors**

- > Around 1900 the medical profession realized there were no health benefits to carbonated water on its own, so it became a treat.
- Lemon flavored drinks were the first fad because of lemonade and frequent use of lemon syrups as a base flavor for many medicines
  - All citrus-flavored sodas were popular in the mid-1800s because their essential oils were easy to extract and preserve.
- Other staples included chocolate, vanilla, cherry, and wintergreen, although shops were always testing new recipes looking for the latest hip drink.
- > Most soda mixtures used a simple syrup, but flavors were more tart than today's sodas.

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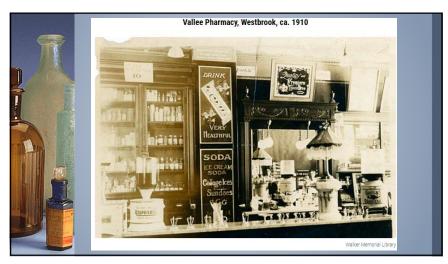
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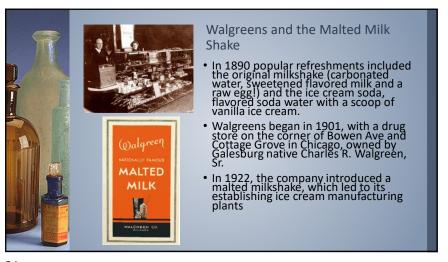
## **Bottling of Soda Pop**

- > At the turn of the century bottled soda sales were also booming
- > The crown cap, invented by William Painter in 1892, improved sanitation and leakage issues with earlier corked bottles.
- in 1899, two entrepreneurs named Joseph Whitehead and Benjamin Thomas convinced Coca-Cola co-founder and pharmacist Asa Griggs Candler to give them the exclusive rights to bottle his product.
  - Coke would soon become the greatest success of the bottling movement
- Instead of building their own bottling facilities they sold franchises to regional bottlers all over the country.
- Their biggest competitor at the time, Moxie, refused to do this

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Toxic Hx of Soda Pop

By 1900, Americans started to notice the dangers of unregulated medications.

Coca-Cola was developed while looking for an antidote to morphine addictions following the Civil War

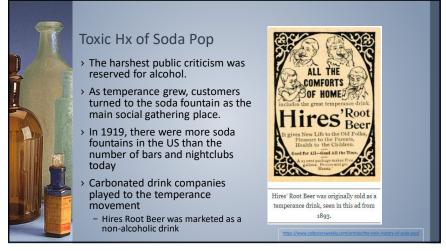
The company's first advertisement ran in 1866 as a health drink, "containing the properties of the wonderful Coca plant and the famous Cola nuts."

In 1906 the Pure Food and Drug Act was passed and required dangerous/addictive ingredients to be clearly labeled

After which the majority of Coca-Cola's cocaine and caffeine was removed

In 1914, the Harrison Narcotics Tax Act became law and it banned the use of cocaine and opiates in OTC products

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### **Prohibition Soda Fountains**

- > Prohibition was another reason for soda fountains in drugstores.
- > During Prohibition you could get the best drink in town at a drugstore.
- > Doctors could write prescriptions for people to go get a pint of whiskey.
- > Pharmacies could legally possess and dispense alcohol with licensing
- Customers would pick up their medicinal liquor and have a drink at the fountain with friends.

https://www.collectorsweekly.com/articles/an-interview-with-pharmacy-drugstore-and-soda-four

Prohibition 1920-1933

The word "soft drink" came about to distinguish cocktails made with soda water vs. hard alcohol

Almost every drugstore had a soda fountain by the early 1920's.

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### The Soda Dispenser

- > The invention of the soda dispensers changed the way soda was made.
- No longer a need for syrup dispensers and now the soda and syrup were mixed in one apparatus.
- > Everything became uniform in taste and brands become recognizable.
  - Coca Cola and Pepsi began making soda dispensers, which they supplied to the pharmacies free of charge.
- > Eventually, sodas were bottled and sold everywhere, and people no longer had to go to the drugstore for a soda.

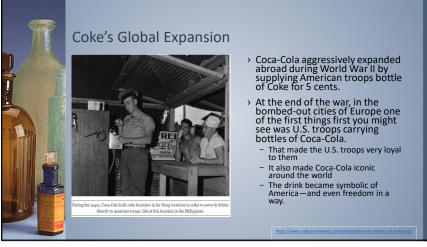
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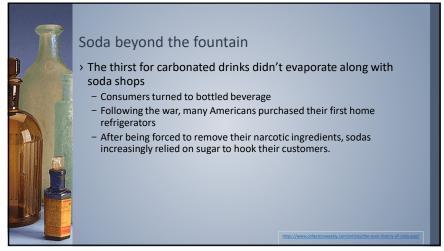
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Interior of Porter's Drug Store, Boothbay Harbor, ca. 1930

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## The Future of Soda Pop

- The growing awareness of soda's unhealthy impact is hurting soda sales.
  - sugars can be just as addictive as drugs like morphine and cocaine
- Statistics show a decline in American soda purchases over the last few years.
- Bottled artisanal sodas have made a comeback.
- A few authentic soda fountains have opened in recent years to re-create the complicated drinks of yore, <u>Ice</u> <u>Cream Bar</u> in San Francisco, or <u>Franklin Fountain</u> in Philadelphia.



like juleps, phosphates, and egg creams. Via thefranklinfountain on flickr.

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## Vernor's Ginger Ale: The oldest pop still around

- Invented by Detroit pharmacist James Vernor who was working on a formula for upset stomach
- > Left his ginger-ale syrup in an oak cask when he went off to fight in the Civil War in 1862
- > Upon returning in 1865 his syrup ended up with a distinct flavor thanks to the wood.
- > Vernor originally sold the soda pop in his drugstore, but by 1896, the drink was so popular that he was able to close the drugstore and focus purely on selling the soda.
- > Vernor's Ginger Ale made a modest claim: that it aided digestion.
  - large amounts of ginger extract were in the beverage then



https://www.rd.com/list/soda-origins-facts/

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## Hires Root Beer—Inspired by a honeymoon



- > Philadelphia pharmacist Charles E. Hires was served root tea on honeymoon in 1875.
- When he got back home, he started selling root tea packets, which people could take home to brew their own drinks (1876).
- > By 1884, Hires decided people would buy more if it was premade and decided to change "tea" to "beer".
  - combined 25 herbs, berries, and roots with carbonated.
- An 1887 ad for Hires Root Beer mix described the product as a "delicious beverage, possessing properties which will change any morbid action of the stomach, fever and kidneys, and keep them in a healthy condition, promoting strength and vigor."

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### Dr Pepper: Oldest Major Soft Drink Brand in America

- > Dr Pepper is the oldest major soft drink in America, having been created, manufactured, and sold in 1885 by pharmacist Charles Alderton.
- It was marketed as having a unique taste and originally sold as an energy drink and a "brain tonic" made with 23 secret ingredients.
- > It was served in Morrison's Old Corner Drug Store in Waco, Texas, and the owner of the store, Wade Morrison, gave it the name "Dr Pepper" (the period was dropped in the 1950s for stylistic reasons as well as to eliminate any connotation of a medical link).
- > Dr Pepper wasn't nationally marketed until 1904, when it was introduced to about 20 million people at the 1904 World's Fair Exposition in St. Louis.

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### Dr Pepper: Oldest Major Soft Drink Brand in America

- It was advertised as a "pure food beverage," declaring that it was "absolutely free from caffeine, cocaine, or any injurious drugs."
- Dr Pepper added caffeine in 1917 and turned its sugar content into an advertising claim that it provided a pickme-up at "10-2 and 4 o'clock," hours when blood sugar level waned.



https://www.drpepper.com/en/fag https://www.medicabag.com/home/features/grey-matter/the-origins-of-soda/ https://www.rd.com/sss/soda-origins-facts/ https://www.drpeppersnapolecroup.com/company/history

### Coca-Cola: Used to be a cocktail



- In 1886 at Jacobs's Pharmacy in Atlanta, pharmacist Dr. John Pemberton sold the first glass of Coke, which was made from coca leaf extract and caffeine from the kola nut.
- Coca-Cola syrup was originally marketed as a stimulant and headache cure.
  - It started out as "Pemberton's French Wine Coca," but a temperance law forced the removal of wine from his recipe and it was replaced with sugar.
- Company accountant, Frank Robinson, names the drink "Coca-Cola," and thinking the two Cs would look well in advertising, pens the famous Spencerian script logo
- Dr. Pemberton never realized the potential of the beverage he created. Just prior to his death in 1888, sold his remaining interest in Coca-Cola to pharmacist Asa G. Candler.

https://www.coca-colacompany.com/company/history. https://www.medicalbag.com/home/features/grey-matter/the-origins-of-soda https://www.rd.com/list/soda-origins-facts/

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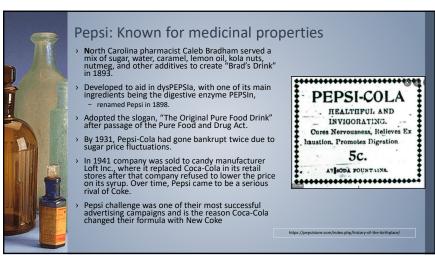
### Coca-Cola: Advertising

- > 1891 Calendars are first used for advertising
- > 1896 Soda fountain urns and clocks are first used for advertising purposes
   > 1904 The first advertising for Coca-Cola appears in national magazines.
- > 1907 The Company begins its long association with athletes with a series of ads featuring noted baseball players.
- 1925 The Board of Directors passes a resolution placing the secret formula for Coca-Cola in a bank vault at the Trust Company Bank in Atlanta. Outdoor billboards are introduced
- > 1928 The Company begins its long-term association with the Olympic Games

https://www.coca-colacompany.com/content/dam/journey/us/en/our-company/history/coca-cola-a-short-history-125-years-booklet.pdf

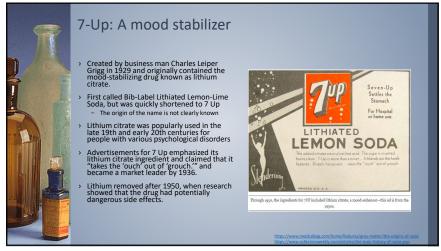


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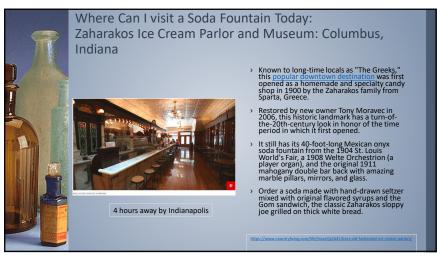


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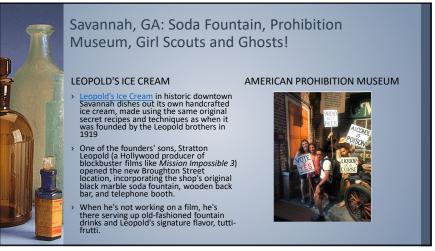
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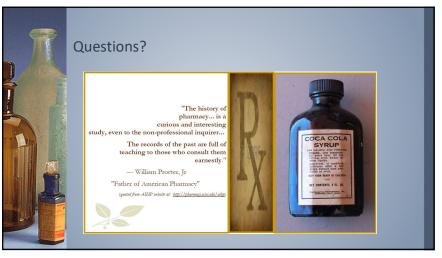


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### Post-Test Question #1

Why was soda mostly available in drug stores when it first become popular around the turn of the 20<sup>th</sup> century?

- A. Drug stores had refrigeration to keep soda cool
- B. 1914 Harrison Narcotics Tax Act mandated soda be sold as a prescription only
- C. Pharmacists had the skill set to make carbonated water, syrup and flavorings
- D. Glass was not invented so there were no bottles to transport soda

REFERENCES: PLEASE INDICATE JOURNAL NAME, YEAR, ISSUE/VOLUME, PAGES (KEEP IN FONT SIZE 8)

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### Post-Test Question #1

Why was soda mostly available in drug stores when it first become popular?

- A. Drug stores had refrigeration to keep soda cool—no one had refrigeration
- B. 1914 Harrison Narcotics Tax Act mandated soda be sold as a prescription-only—this act took the cocaine out of Coke
- C. Pharmacists had the skill set to make carbonated water, syrup and flavorings. Yep, they sure did have the skills!
- D. Glass was not invented so there were no bottles to transport soda—The history of glass-making dates back to at least 3,600 years ago in Mesopotamia.

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### Post-Test Question #2

The 18<sup>th</sup> Amendment (National Prohibition Act) required that eleven ingredients considered addictive and/or dangerous be listed on the drug label:

A. True

B. False

REFERENCES: PLEASE INDICATE JOURNAL NAME, YEAR, ISSUE/VOLUME, PAGES (KEEP IN FONT SIZE 8)

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### Post-Test Question #2

Answer: False

1906 Pure Food and Drug Act required that eleven ingredients considered addictive and/or dangerous be listed on the drug label

The 18<sup>th</sup> Amendment (National Prohibition Act) prohibited the manufacturing, transportation and sale of alcohol within the United States

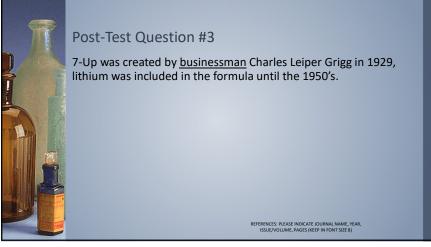
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Which popular soda brand today was not invented by a pharmacist?

A. Coca-Cola

B. Pepsi
C. Dr Pepper
D. 7-Up

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### Take Home Points

- > The legacy of pharmacist-created soda flavors is still strong, with many of the brands now recognized worldwide
- > Today the soda fountain has become a part of American nostalgia and only a few vintage soda fountains still survive

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