

Anesthesia Facts from a Gas Passer

Christopher J Rohan MD
VA White River Junction Vermont



Anesthesia

- Started with drugs that were simple



Alcohol
Opium
Hemlock
Coca
Chloroform



Alcohol

- Acute Central Nervous System Depressant
- Increases bleeding
- Complicates anesthesia
- Delayed recovery
- Immune suppressant



Alcohol

Beer

wine

Liquers

Baijiu

Whiskey





Hemlock

- Added to Opium as a paste to euthanize people
- Poisonous causes motor paralysis
- **Dwale** a drink with hemlock opium alcohol and vinegar



Opium Poppy

- Self pollinating annual plant
- Addicting , Sleep Inducing, Pain killer, Enhanced Mood
- Derivatives
- Heroin
- Morphine
- Codeine



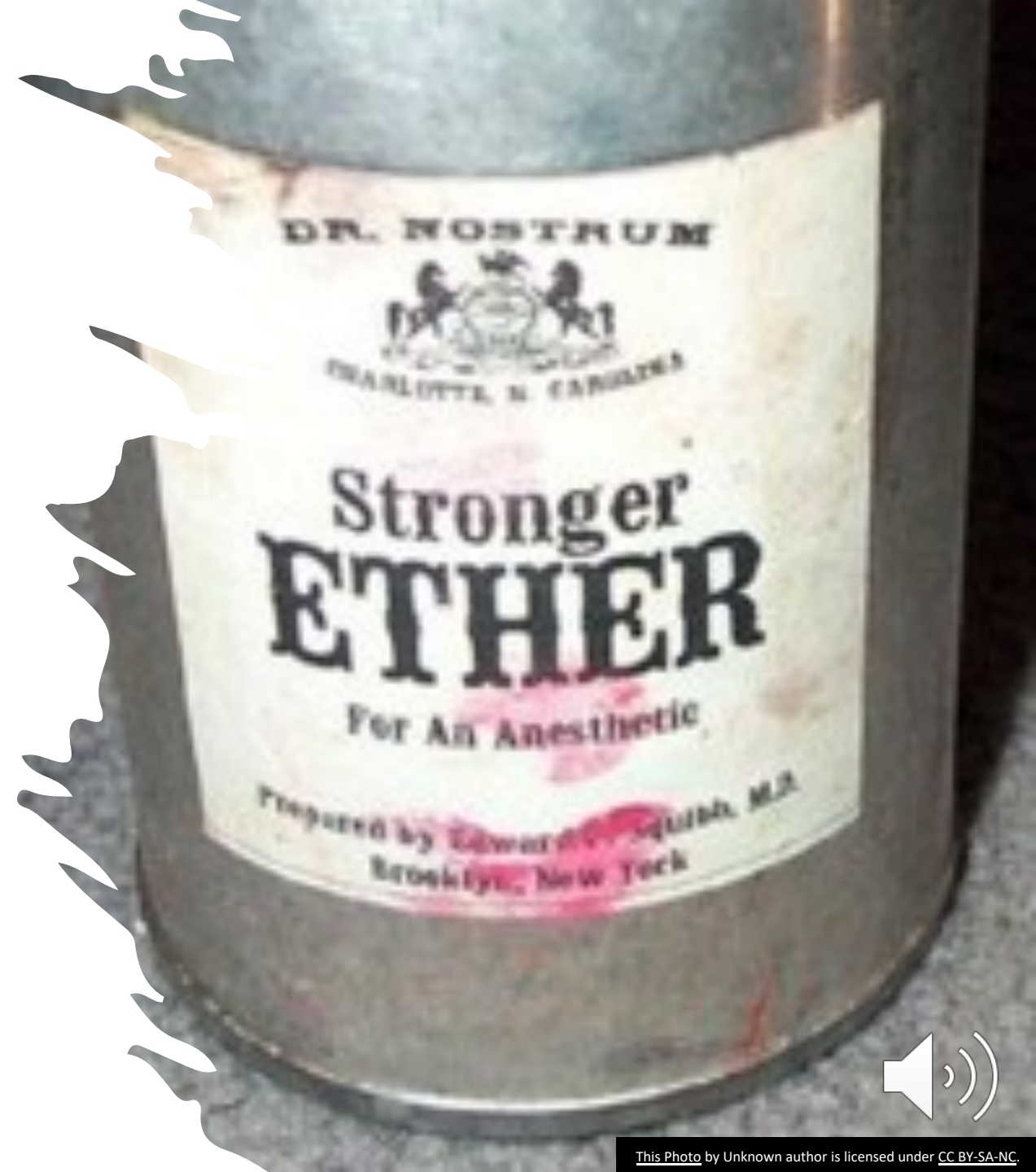
Chloroform

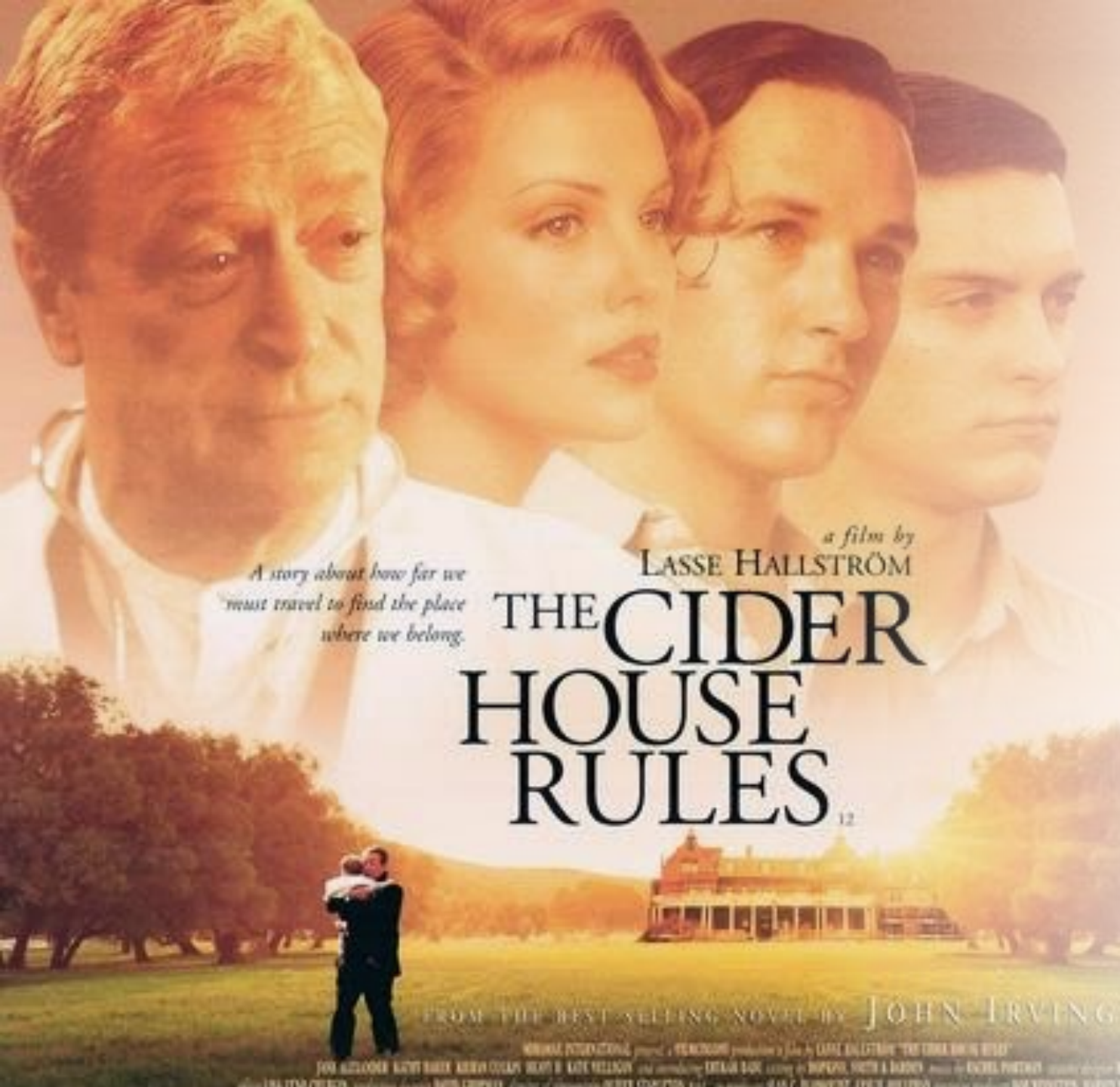
- Can be made at home with alcohol/acetone and bleach
- Famously used in movies to knock people out with a rag on their face
- Queen Victoria used it to give birth to her son Prince Leopold 1853
- Used in many industrial processes today



Ether

- Diethyl Ether 1840
- Sevoflurane is an Ether Derivative
- Colorless, Highly Volatile and Flammable, Sweet Smelling
- Starting Fluid for engines
- First Used in Dental Surgeries
- Makes patients very nauseous





7 ACADEMY
NOMINATIONS
BEST ACTOR
BEST SUPPORTING ACTOR
BEST ADAPTED SCREENPLAY

Cider House Rules

- Book by John Irving 1985
- Movie 1999
- Michael Caine



Ether Dome Boston Massachusetts

Demonstrated its use as an
anesthetic

Replaced Chloroform because it
was safer

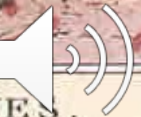
Higher Therapeutic Index

Bigger difference btwn effective
and toxic dose



Nitrous Oxide

- 1850
- Inhaled



Inhalation Agents

- Absorbed into the blood from the lungs
- Cross the blood brain barrier
- Most Common is Sevoflurane
- Desflurane has a significant green house gas effect



Local
Regional
General
Sedation



This Photo by Unknown author is licensed under [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/).



Local

- Local Anesthetic injected into the tissue to numb up a specific area
- Lidocaine
- Bupivacaine



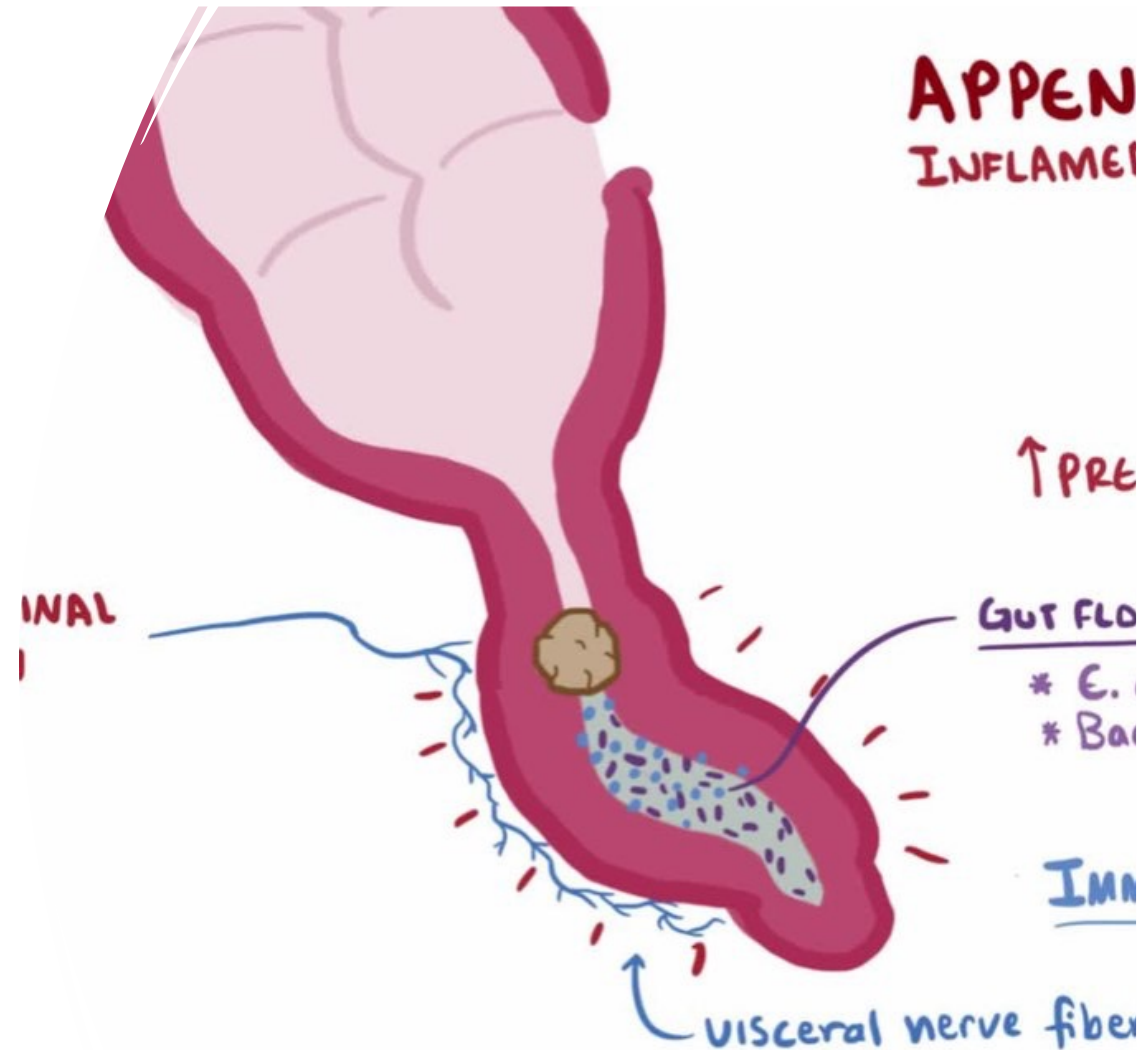
Local

- Early placement of local
- Decreases post operative pain
- Decreases the amount of total intravenous and inhaled anesthesia for the particular surgery
- Positive effects of decrease anesthesia are many
 - Less nausea
 - Less confusion
 - Less adverse drug effects



Appendectomy

- Local in trocar sites
- Local within the abdomen
- Local in the incisions at the end of case



Regional Anesthesia

- Nerve Blocks
- Tap Blocks
- Ultrasound Guided
- Post Op Pain Control
- Primary Anesthetic



General

- Volatile Agents
- Sevoflurane

TIVA (Total IntraVenous Anesthesia)



Fentanyl

- Synthetic Opioid
- Cheap
- 100 times more potent than Morphine
- Lipophilic , fat soluble
- Enters brain quickly



Propofol

The Michael Jackson Drug

Short acting

No significant side effects



Rocuronium

- Paralytic
- Short acting
- Easily reversed



Thank You

- Enjoy your day
- Go Boston Celtics

