

Caffeine and its effects on the world



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Research question and our hypothesis

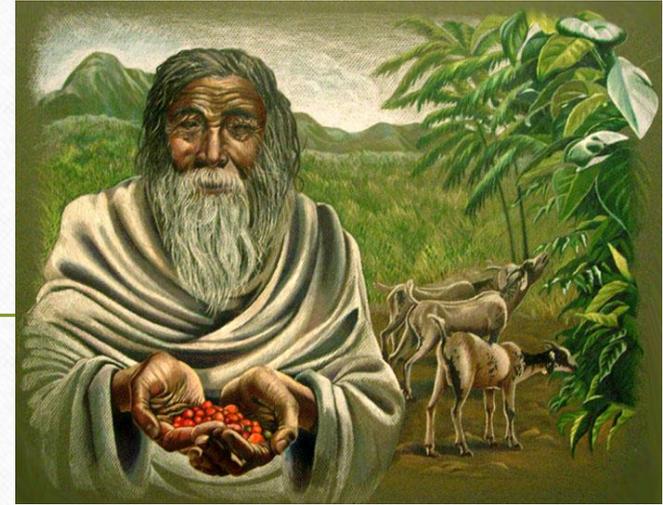
Research question:

What are the effects of coffee and how caffeine affected the world?

Hypothesis:

- People became more focused
- More efficient at work
- They started to think in a more linear pattern
- Helps prevent a number of diseases

History of coffee



A number of theories on where it came from and how

- **Main legend:** goat shepherd Kaldi
- "Coffee grown worldwide can trace its heritage centuries back to the ancient coffee forests on the Ethiopian plateau. The legend says the goat shepherd Kaldi first discovered the potential of these beloved beans."
- Coffee spread slowly from Africa, to the Middle East and into the West

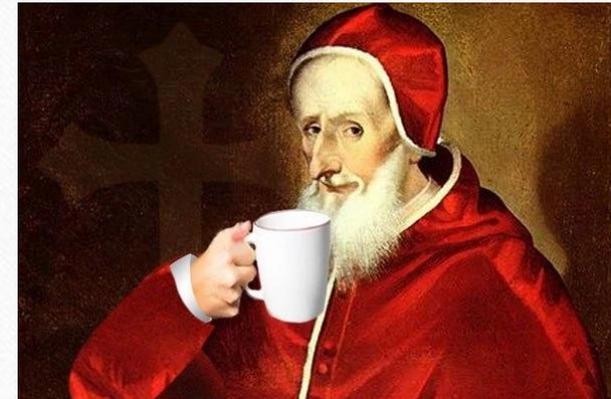
THE ARABIAN PENINSULA

- 15th century – grown in the Yemeni district of Arabia
- 16th century - known in Persia, Egypt, Syria and Turkey
- Gahveh khaneh houses



ARRIVAL TO EUROPE

- Stories of an unusual dark black beverage
- „bitter invention of Satan”



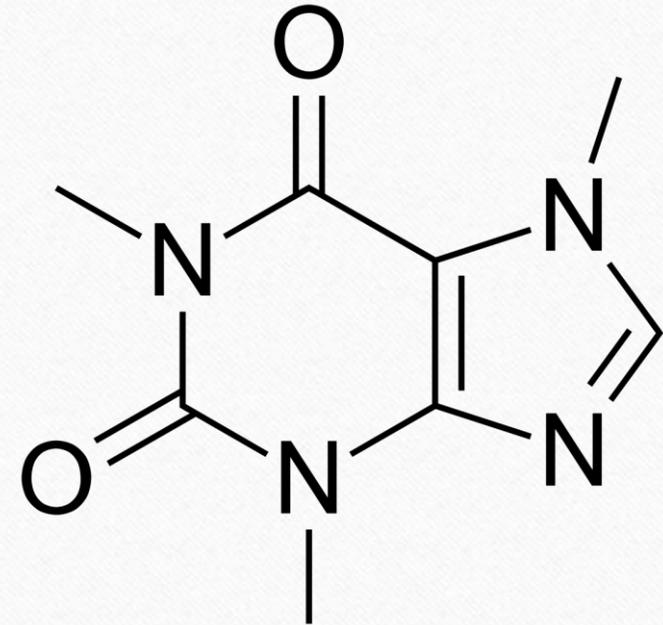
ARRIVAL TO AMERICA

- 1714 - Mayor of Amsterdam presented a gift of a young coffee plant to King Louis XIV of France (Royal Botanical Garden in Paris)
- 1723 - Gabriel de Clieu (young naval officer)
- 18 million coffee trees on the island of Martinique (next 50 years)
- Francisco de Mello Pahleta (Brazilian coffee)
- The end of the 18 century - coffee had become one of the world's most profitable export crops

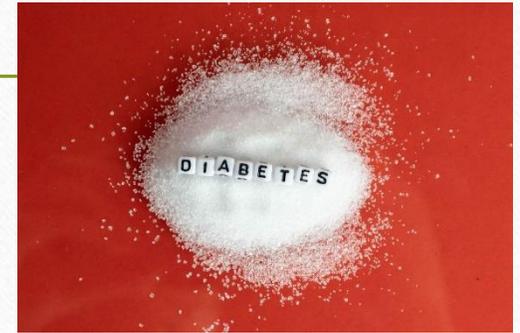


Caffeine

- **Natural stimulant** of the central nervous system
- Psychoactive drug
- Teas, coffee beans, cocoa plants
- 90% of the world's adults consume some sort of caffeine every day
- Binds to adenosine receptor
- Recommended maximum amount of caffeine is 400ml/4 cups



Benefits of drinking coffee



Protection against:

1. Diabetes type 2

- 48 000 people (2014), 11% lower risk of type 2 diabetes
- Meta analysis (taken from trusted source (2017), 4-6 cups a day lower the risk of metabolic syndrome, including type 2 diabetes

2. Parkinson's disease

A) Studies have shown:

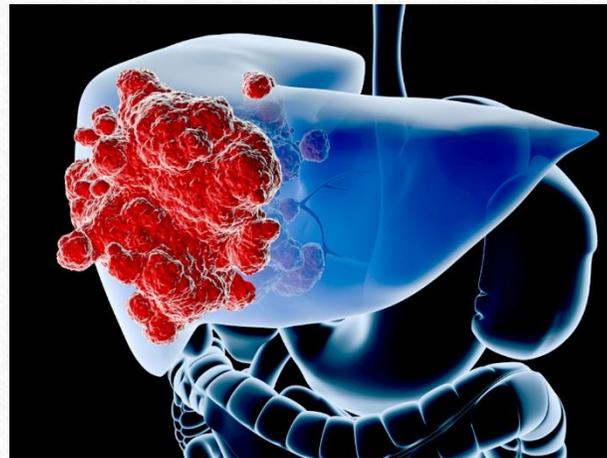
1. Caffeine helps protect against Parkinson's disease
2. Men (>4 cups), fivefold lower risk of Parkinson's
3. People (may) be less depressed and show signs of Alzheimer's
4. Decaffeinated coffee doesn't have health benefits



3. Liver cancer

A) Coffee consumption lowers the risk of liver cancer by 40%

(Italian trusted source (2019) „coffee intake probably reduce the risk of liver cancer)



4. Liver disease

A) Lower risk of **primary schlerosing cholangitis (PSC), primary biliary cirrhosis (PBC)**

Taken from a 2014 research

B) There is link beetwen coffee consumption and a **lower risk of dying** from **nonviral hepatitis-related cirrhosis**

One study from a trusted source (2014):

C) Consuming any type of caffeine **reduces** the risk of: **liver cancer, nonalcoholic fatty liver disease cirrhosis and gallstone**

Meta analysis from a trusted source (2017)



5. Heart health

A) - Drinking/consuming coffee may protect against heart failure

Taken from a trusted source (2012)

B) Caffeine consumption may have a small benefit for cardiovascular health (**blood pressure**)

One meta-analysis from a trusted study (2017)

C) Some studies found higher levels of blood lipids (fat) and cholesterol in people who consumed coffee

Risks of coffee taking

WOMEN	MEN
> Osteoporosis	< Osteoporosis
Birth defects	/
Endometriosis	/

1. Bad quality coffee (ripped or otherwise ruined beans) can have a lot of impurities (**sickness** and **headaches**)
2. Coffee **can kill you**; 80-100 cups/short session (23 litres/10-13 g of caffeine)
3. Coffee can **cause insomnia and restlessness**
4. High cholesterol- choose filtered coffee (beans contain cafestol and kahweol: **raise LDL cholesterol**)
5. Coffee for kids (5-7 years) increase **bedwetting**

Impact of caffeine on the world



Michael Pollan (American best-selling author) „This Is Your Mind On Plants”

- "It is hardly an exaggeration to say that the arrival of caffeine **in Europe changed...everything** he writes. "Coffee and tea ushered in a **shift in the mental weather, sharpening minds** that had been fogged by alcohol, freeing people from the natural rhythms of the body and the sun, thus making possible **new kinds of work** and, arguably, **new kinds of thought**, too.,,
- "And it turns out after, you know, really digging into the history that, by and large, all of us in the West, **our consciousness is caffeinated**," Pollan continued. "**We depend on caffeine**. I mean, just look at the institution of the **coffee break**, right? I mean, if you want to understand the links between modern life and caffeine, look at the fact that your employer **gives you a drug** for free and then gives you paid time in which to ingest it - the coffee break,,

Sources

- <https://nypost.com/2021/07/17/how-coffee-fueled-the-enlightenment-and-the-union-army-victory/>
- <https://www.healthline.com/nutrition/top-13-evidence-based-health-benefits-of-coffee>
- <https://www.healthline.com/nutrition/coffee-good-or-bad>
- <https://www.medicalnewstoday.com/articles/270202>
- <https://www.britannica.com/topic/coffee>
- <https://www.youtube.com/watch?v=WD6cYabx0nk>
- <https://www.ncausa.org/about-coffee/history-of-coffee>

Reflection

- Not every piece of information is certain/reliable
- A lot of information on coffee is a potential information (theories)
- Best sites are the ones with research studies attached to them
- Presented information may change in the future
- Focus more on our hypothesis
- Expand our research on the effects of caffeine on mental activities

Thank you for paying attention

