UNIVERSITATEA
DE MEDICINĂ ȘI FARMACIE
VICTOR BABEȘ | TIMIȘOARA

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PRESENTATION GUIDELINES FOR SCIENTIFIC EVENTS

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PREFACE

Presentation Guidelines for Scientific Events is a collection of PowerPoint presentations in English delivered by medical students at scientific events. The presentations were crafted under the linguistic supervision of Assoc. Prof. Ph.D. Iulia Cristina Frînculescu and Assoc. Prof. Ph.D. Simona Nicoleta Staicu.

Nowadays English is the international language of specialized communication, including medical communication. It is the main language of international conferences, scientific exchanges, and even national meetings of specialists. That is why developing presentation skills should be a priority for English-language learners.

There are two different aspects concerning presentations, both equally important, namely the delivery of the speech and the preparation of a PowerPoint, to support the speaker's discourse. While the former aspect has raised the interest of researchers over the years, the latter has not been at the core of scientific investigations. Consequently, in our country there is a scarcity of studies on the subject of PowerPoint presentations for scientific meetings.

This volume brings its contribution to filling that gap. To do that, it puts together a series of students' papers on medical topics. The focus is on the use of the English language in a medical context.

The book forwards a variety of PowerPoint layouts, designs and structures. These presentations are intended to serve as an example for medical students, students of other specialities, and even graduates, who need to prepare PowerPoint presentations in English for various reasons: conferences or congresses, workshops and webinars, seminars, courses or lectures delivered to colleagues and trainees.

Associate Professor Ph.D. Iulia Cristina FRÎNCULESCU
Associate Professor Ph.D. Simona Nicoleta STAICU

Medical Errors

Amna-Tabita Adămuț
Daniel Barbu

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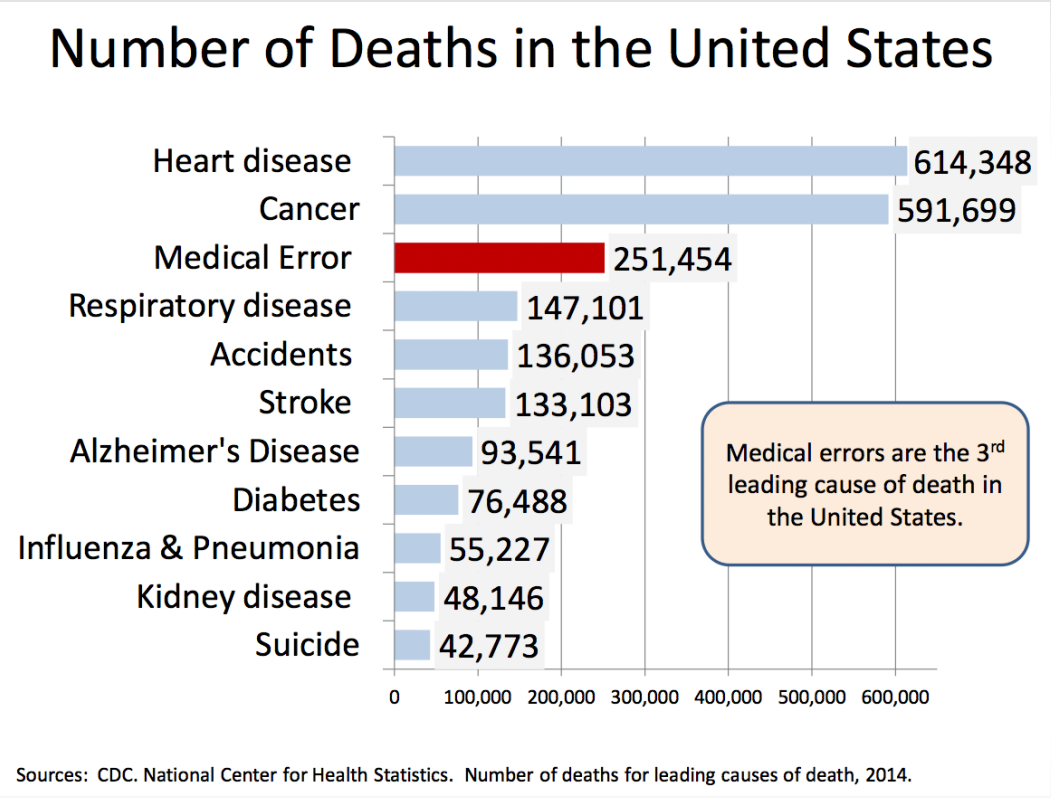
VICTOR BABEȘ | TIMIȘOARA

What are medical errors?



A **medical error** is a preventable adverse effect of care, whether or not it is evident or harmful to the patient.

Most common types of medical errors

Misdiagnosis

Delayed diagnosis

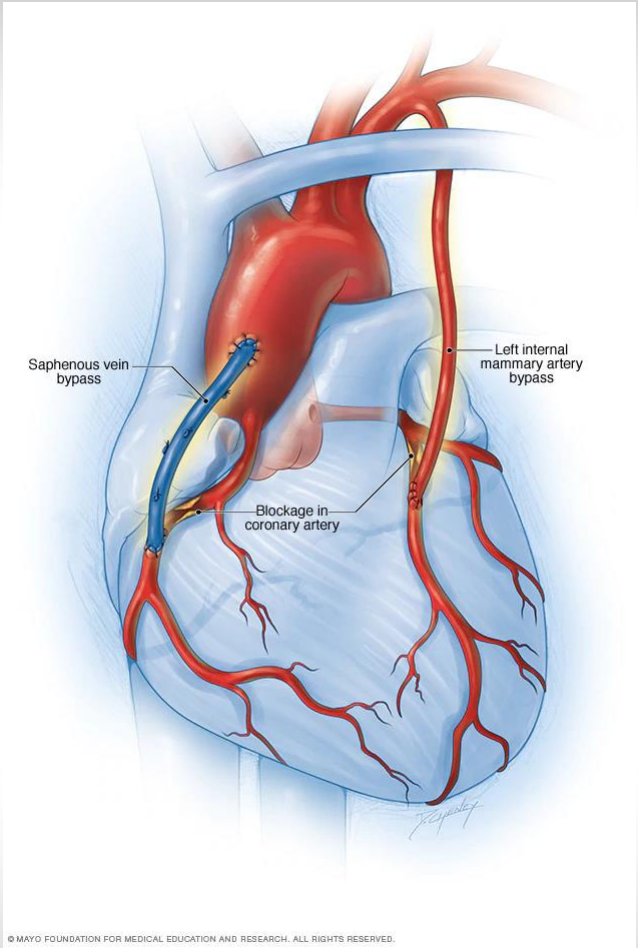
Infection

What happened?

Bad medical devices

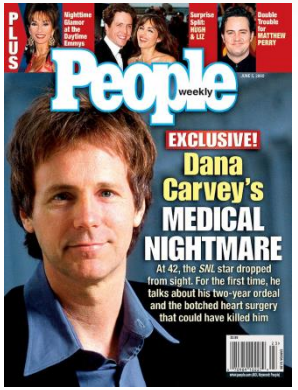
Medication error

Disturbing cases of medical malpractice

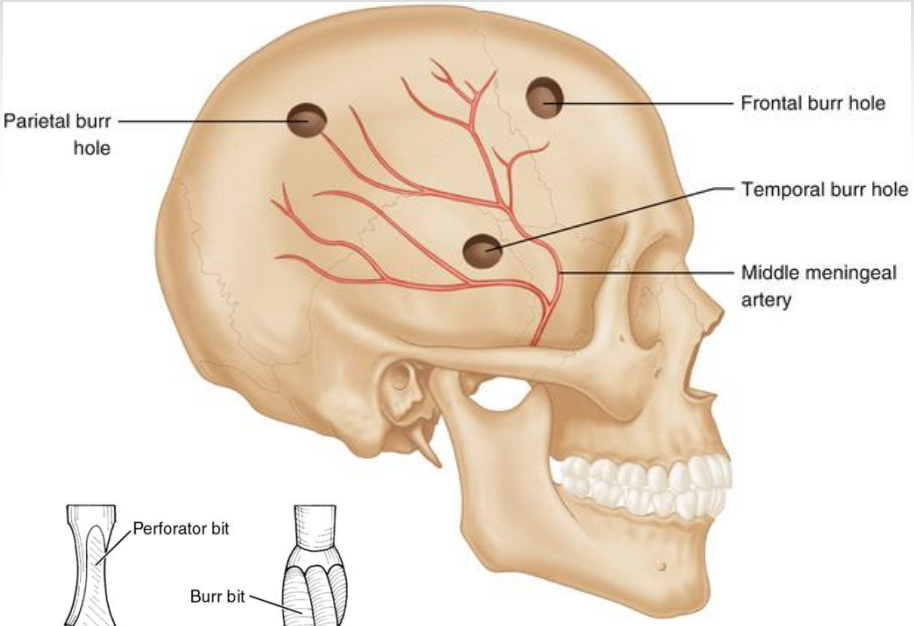


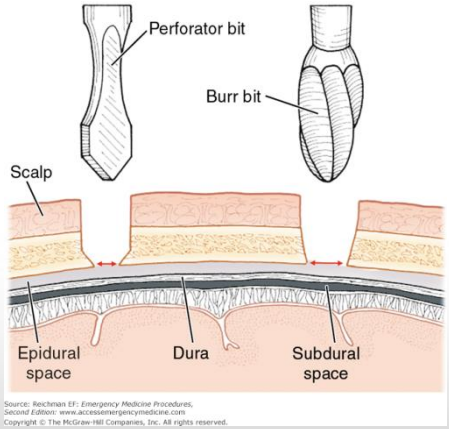
1. Dana Carvey wrong artery bypassed

"It was an honest mistake that occurred due to the unusual positioning of Mr. Carvey's artery in his heart."



Disturbing cases of medical malpractice





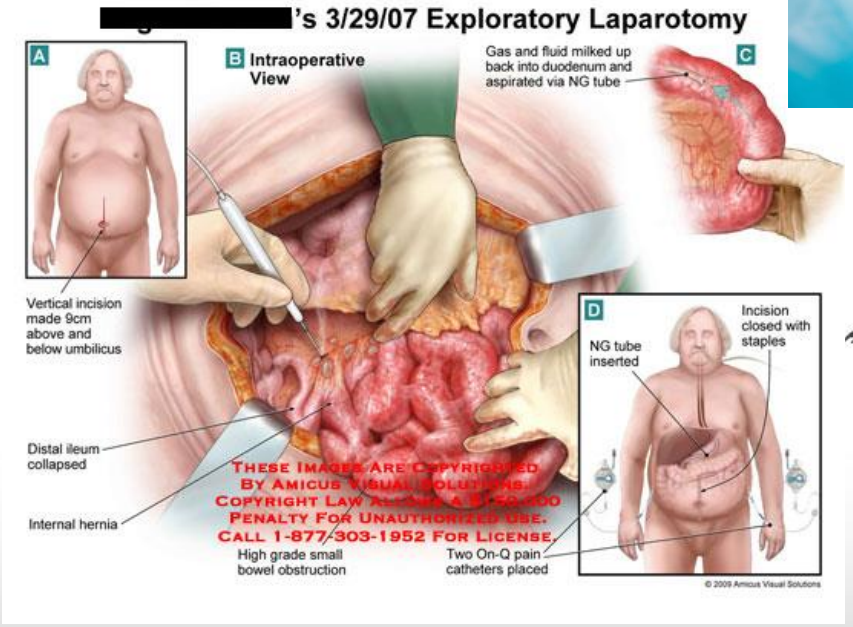
2. Surgeon drills hole on wrong side of head

This action occurred despite the fact that a CAT scan, performed only moments before, indicated that the bleeding was happening on the left side of the brain.

Disturbing cases of medical malpractice

3. Man remains conscious during exploratory surgery

During the surgery, the man experienced a rare condition known as anaesthetic awareness. Essentially, he was able to feel all of the pain, discomfort, and pressure during the surgery.

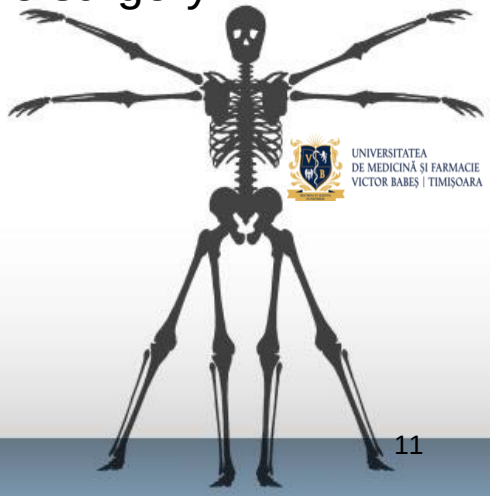


Disturbing cases of medical malpractice

4. Wrong leg amputated

The surgeon was fined $10,000, and his medical license was revoked for 6 months.

"A chain of errors culminated in the wrong leg being prepped for the surgery."

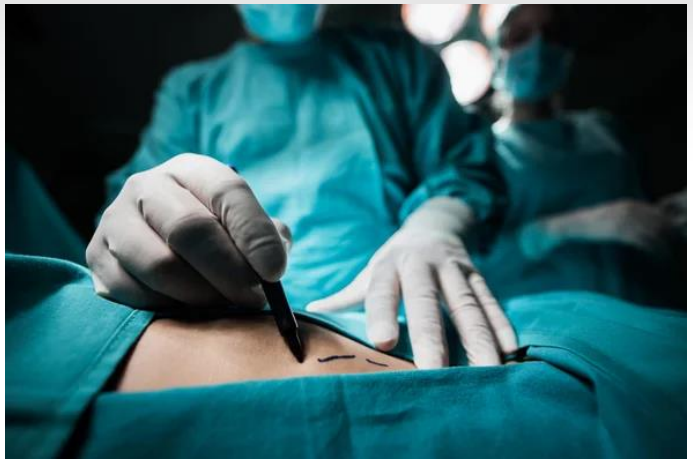


Disturbing cases of medical malpractice

5. Surgeons forget their tools inside patient

During the surgery, they removed an abdominal tumor. In its stead was left another souvenir, a 13 inch long metal retractor.

Four other documented incidences had happened at the same hospital between the years 1997 and 2000.



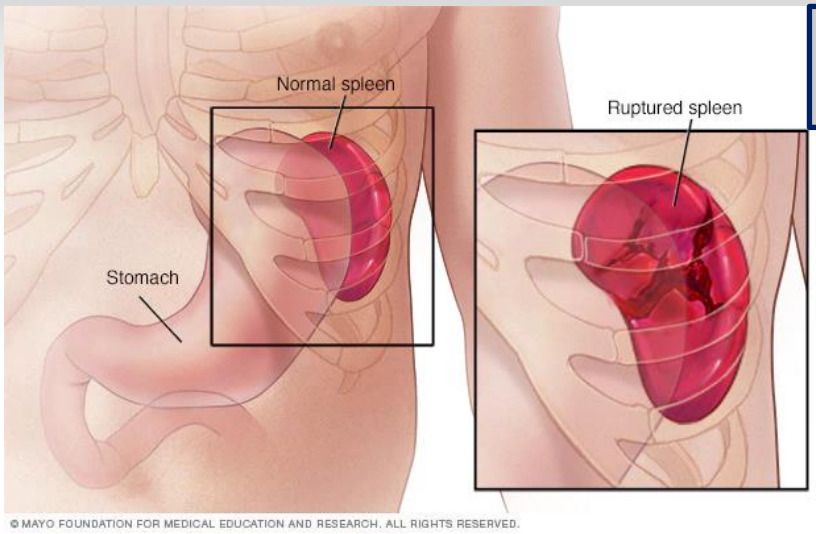
Disturbing cases of medical malpractice

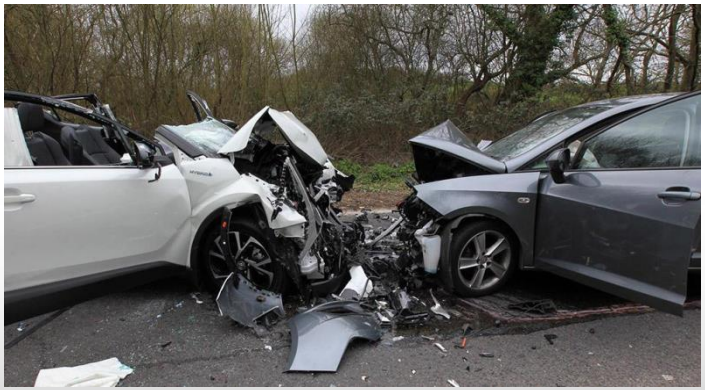
6. Fertility clinic confuses DNA

A fertility clinic in New York impregnated a woman, not with the sperm of her husband, but with the sperm of a complete stranger.

The baby had significantly darker skin. Subsequent DNA tests revealed that baby Jessica's biological parent was of African descent.

Disturbing cases of medical malpractice





7. Ruptured spleen goes unnoticed

The doctors didn't notice the blood in the abdominal cavity, so they sent the patient home.

Due to the pressure, the peritoneum breaks and the patient dies at home after a few hours.

Protect yourself from medical errors!

Learn more about your conditions, tests and treatments

Keep your health care team informed

Talk to your pharmacist

How?

Ask to get information about your medicines in terms you can understand

Thank you for your attention!

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- https://www.psychologytoday.com/us/blog/the-doctor-is-listening/201303/10-medical-errors-can-kill-you-in-the-hospital

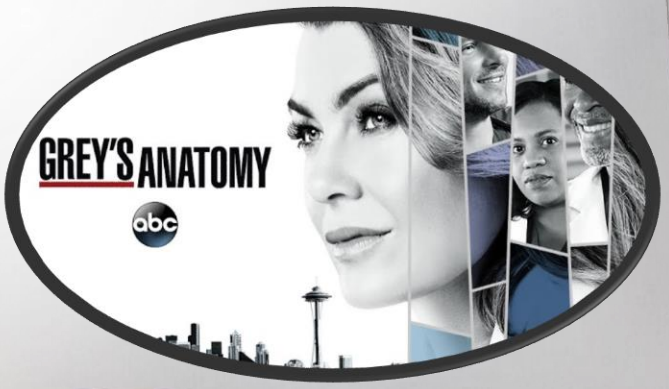
MEDICAL MISTAKES SHOWN IN MOVIES

Alice-Monica Amanolesei

"Victor Babeş" University of Medicine and Pharmacy Timişoara, Romania

GREY'S ANATOMY

- Grey's Anatomy is an American soap opera television series that focuses on the lives of surgical interns, residents, and attending physicians, as they develop into seasoned doctors while trying to maintain personal lives and relationships.

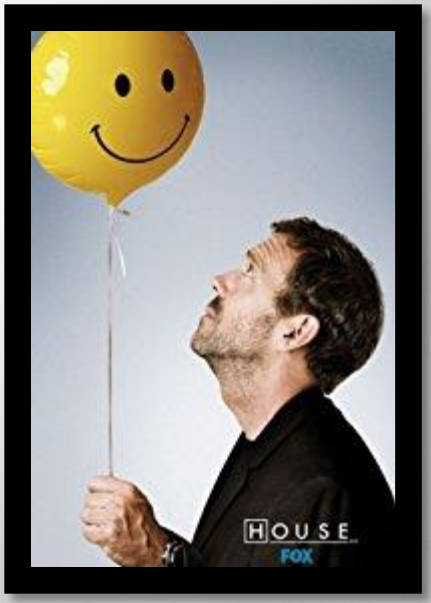


MISTAKES SHOWN

- Meredith loves tequila, it's her thing. However, in season six, Meredith donates part of her liver to her alcoholic father, Thatcher. With only a partial liver, you can't drink alcohol. Meredith continues to drink, a lot.
- After surgery, you don't see your surgeon that much. They instruct post-op care to nurses, who are the ones that actually carry it out. Surgeons very rarely respond to codes, they simply don't have the time.
- Many of the female surgeons will wear jewelry while scrubbing in, as well as while operating. This is prohibited in real operating rooms.
- Masks are commonly down while in the scrub-in room. All surgical personal are required to have masks on before entering the scrub-in room or operating room in real operations.

HOUSE M.D.

- The series' main character is Dr. Gregory House (Hugh Laurie), an unconventional, misanthropic medical genius who, despite his dependence on pain medication, leads a team of diagnosticians at the fictional Princeton–Plainsboro Teaching Hospital (PPTH) in New Jersey.



MISTAKES SHOWN

- House makes a person have a seizure by switching the light on and off. This would not cause a person to have seizure as it takes more flickering than that to trigger a seizure in people with photosensitive epilepsy.
- A kid is being taken to surgery to remove a magnet he swallowed because it may be stuck in his upper intestine. House diagnoses that the magnet is already in the lower intestine by taking a scalpel and showing that it's magnetically attracted to the lower abdomen. Surgical scalpels are made of high grade stainless steel and are not attracted by magnets.

MISTAKES SHOWN

- There are several episodes where doctors continue to defibrillate a patient even after s/he flatlines. A flatline (asystole, where there is no electrical activity in the heart) cannot be corrected by defibrillation, which stops a heart that's in an abnormal rhythm and gives it a chance to start in a normal one (the heart has already stopped when there is a flatline).
- House and Foreman tell the Senator that he has toxoplasmosis, which is caused by a fungus. Toxoplasmosis is actually caused by a protozoan parasite.

SCRUBS

❖ Scrubs is an American medical comedy-drama television. The series follows the lives of employees at the fictional Sacred Heart teaching hospital. The title is a play on surgical scrubs and a term for a low-ranking person because at the beginning of the series, most of the main characters are medical interns.

MISTAKES SHOWN

- One of Dr. Cox' patients needs a heart valve transplanted. Heart valves don't have to be transplanted from another person. They can be replaced by a metal valve, or the surgeon can create a new valve from a different part of the patient's body. There was no reason to wait for a donor valve when they had other options available.

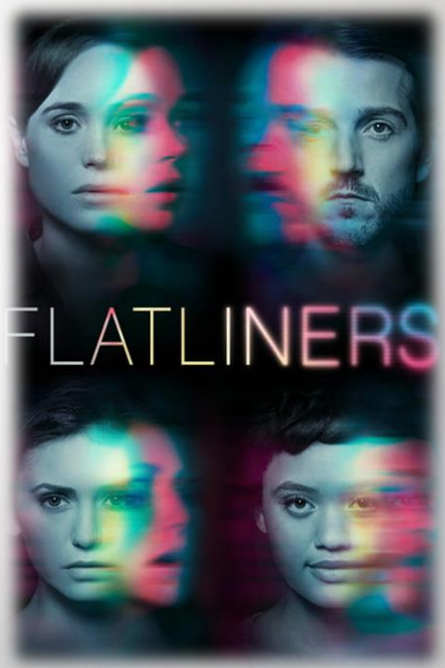
WHY THE MOST ACCURATE?

- In a large academic hospital each speciality has its own stereotype.
- Unfortunately when you do your first few procedures you have little idea what you're doing and you're terrified. There's a scene with Turk and JD doing a paracentesis on a patient (draining abdominal fluid) where they mess up and abdominal fluid shoots up out of the patient like a fountain. They just put a finger on it and pretend they meant to do it. Unfortunately, more real than you think.
- Doctors are not portrayed as God-like.


5
6

FLATLINERS

- Flatliners is a 2017 American science fiction psychological horror film that follows five medical students who attempt to conduct experiments that produce near-death experiences.



MISTAKES SHOWN

- Defibrillation pads are only effective when in direct contact with the skin. Clothing can cause the electricity to flow across the chest not through it as it is supposed to. The depicted defibrillation in Flatliners bears very little resemblance to real world scenarios.
- Ray gives Marlo an adrenaline injection right through the heart which is very dangerous and no longer seen as an effective procedure in hospitals.

BIBLIOGRAPHY

- IMDb (https://www.imdb.com/)
- Clips were cut from the actual TV series!

THANK YOU!

Stone Man Syndrome

Sergiu Băjan

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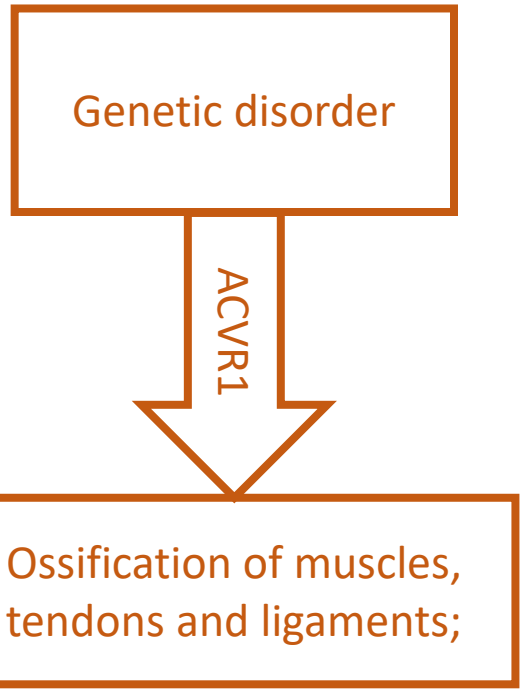
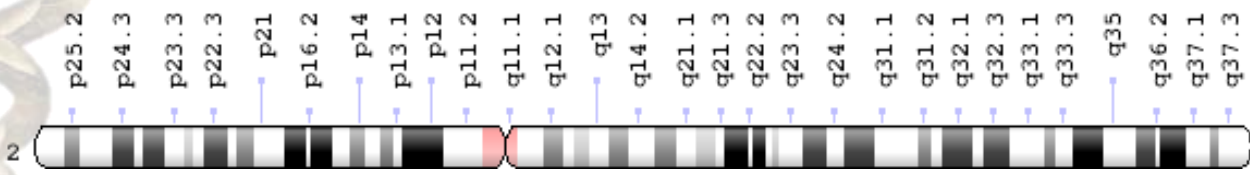
Introduction

- Stone man syndrome = fibrodysplasia ossificans progressiva (FOP);
- Extremely rare disease – 1:2,000,000;





- Life span: 40 years.

Signs and symptoms

Extensive heterotopic ossification

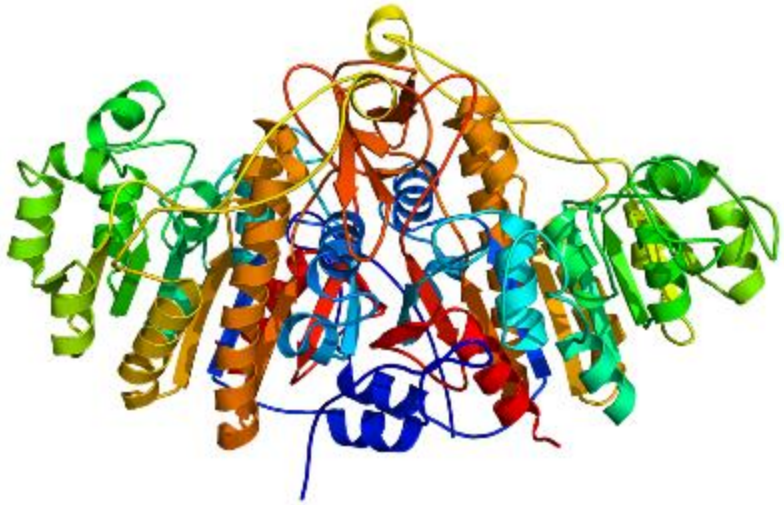
Tumour-like lumps

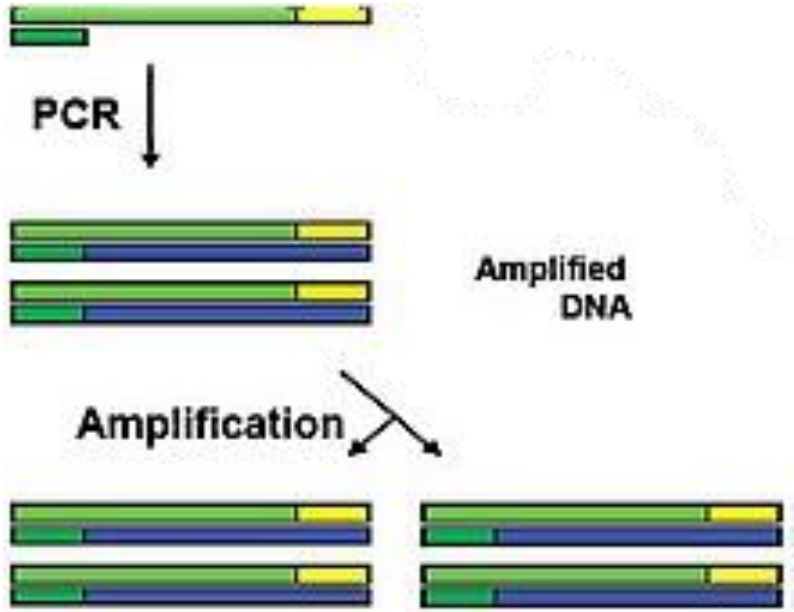
- Respiratory complications
- Loss of mobility
- Loss of hearing

Big toes, sometimes with a missing joint

Diagnosis

- Utterly difficult to diagnose;
- Frequently used tests:
  - ✓ Level of alkaline phosphatase;
  - ✓ Confirmatory genetic analysis (e.g. PCR);
  - ✓ Imaging methods (CT, radiography).

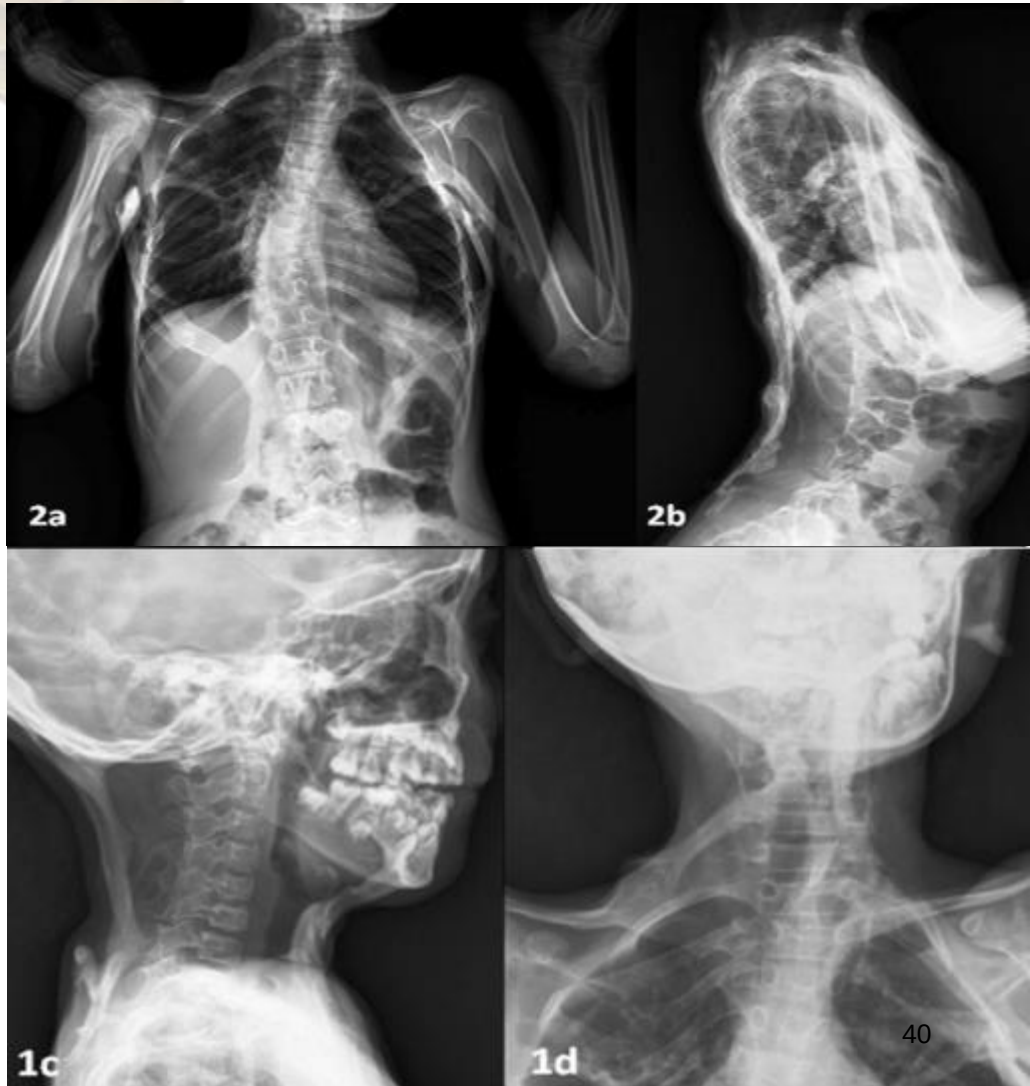




Diagnosis – imaging methods

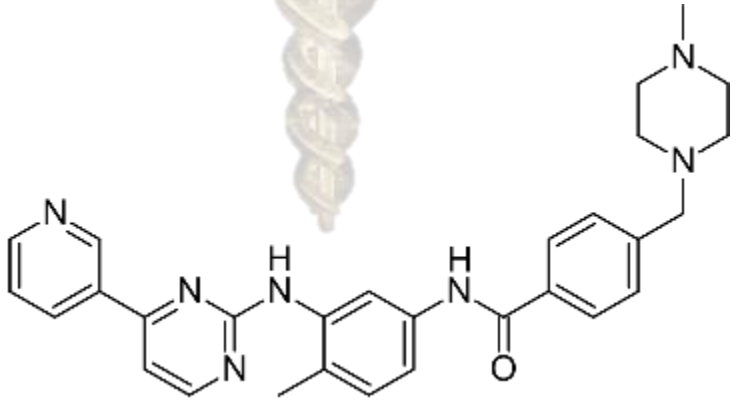
Computed Tomography

X-Ray

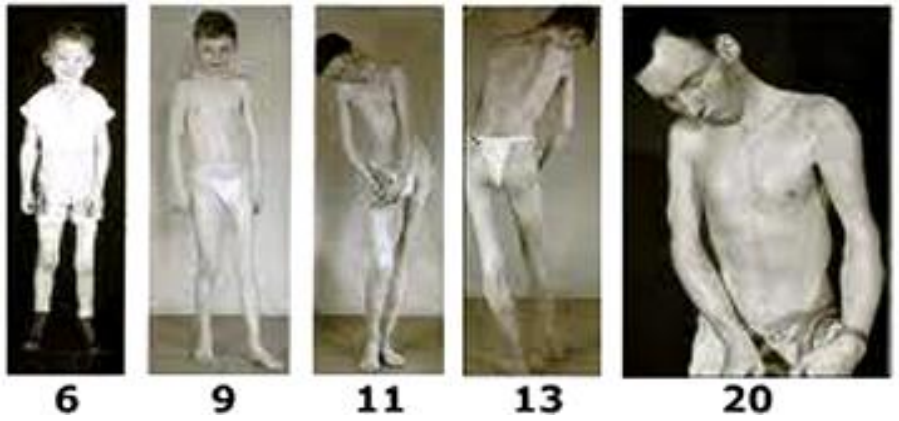


Treatment

- No medication that prevents FOP from occurring/progressing;
- High-dose corticoids to reduce inflammation and swelling;
- Muscle relaxants;
- Imatinib – reduces pain ;
- ACVR1 inhibitor pills.



Clinical case – Harry Raymond Eastlack



- Most famous case;
- The only tangible reference point;
- Diagnosed – age 5;
- Complete fusion of vertebrae – age 20;
- Died – age 39;
- Body completely ossified before death.

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ABORTION:
A MEDICAL OR AN ETHICAL PROBLEM

Oana-Cătălina Băzăvan

"Victor Babeș" University of Medicine and Pharmacy Timisoara, Romania

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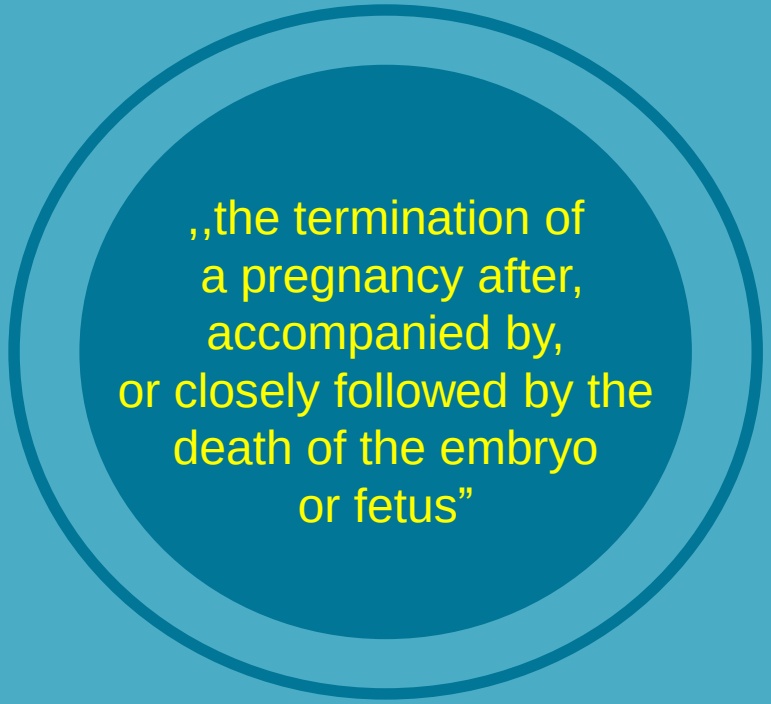
What is an Abortion?

abortion (**noun**)
abor·tion | \ə-ˈbȯr-shən

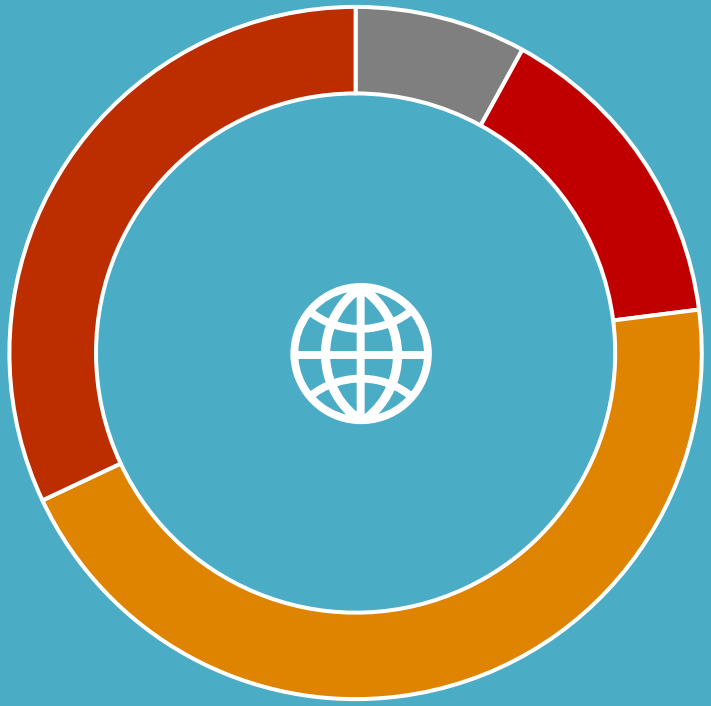


OVER

1 MILLION WOMEN

EVERY YEAR

Abortion Statistics by Age



45% Women Ages 20-24

32% Women Ages 25-29

15% Women Ages 18-19

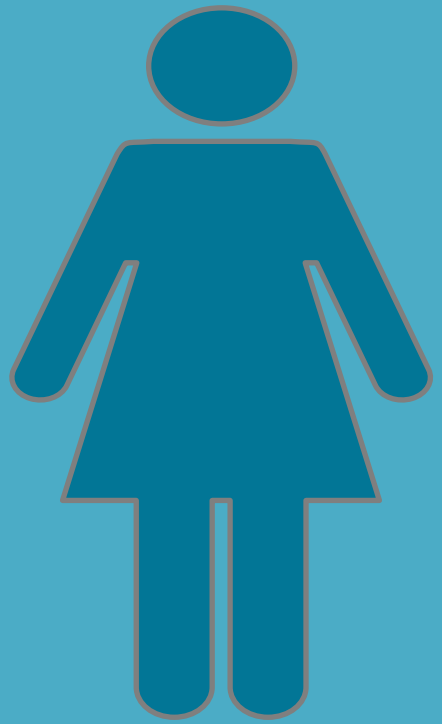
8% Women Ages 15-17

Reasons for Abortion

1) For the sake of the mother's health
2) A pregnancy resulting from a crime
3) Unacceptable quality of baby's life
4) For social reasons
5) As a matter of government policy

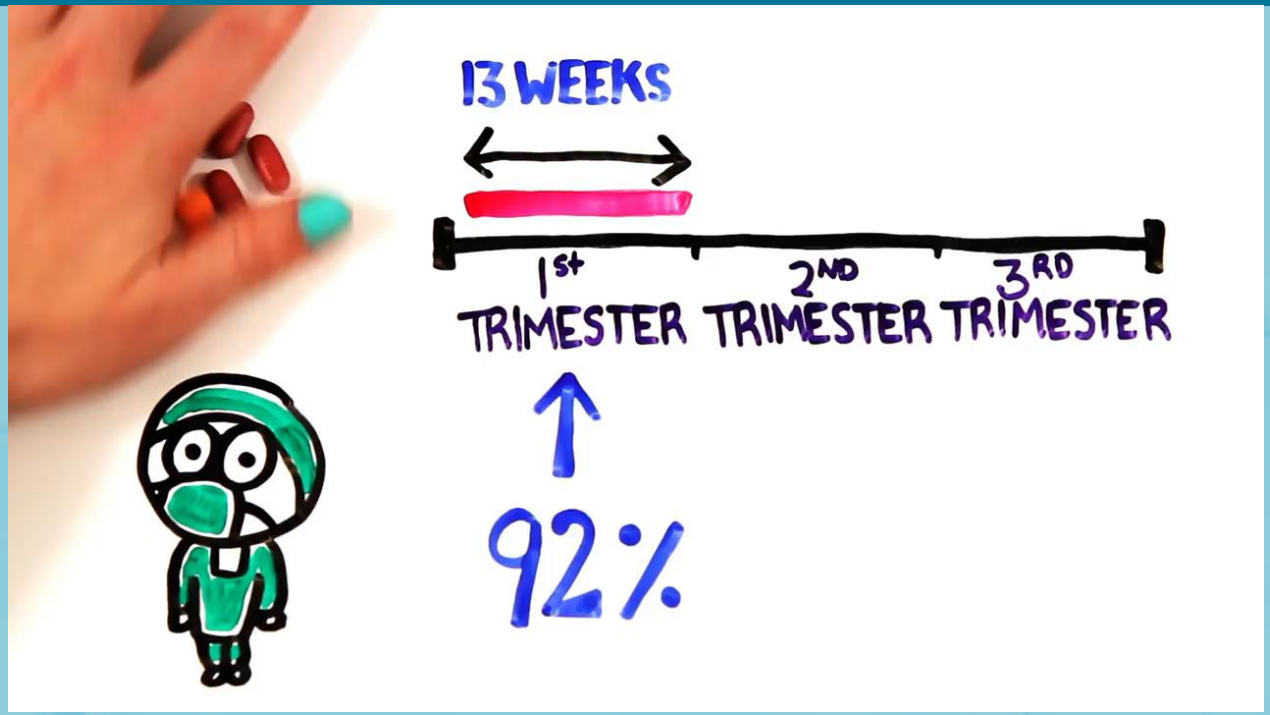
Abortion Methods

MEDICAL (ABORTION PILL)

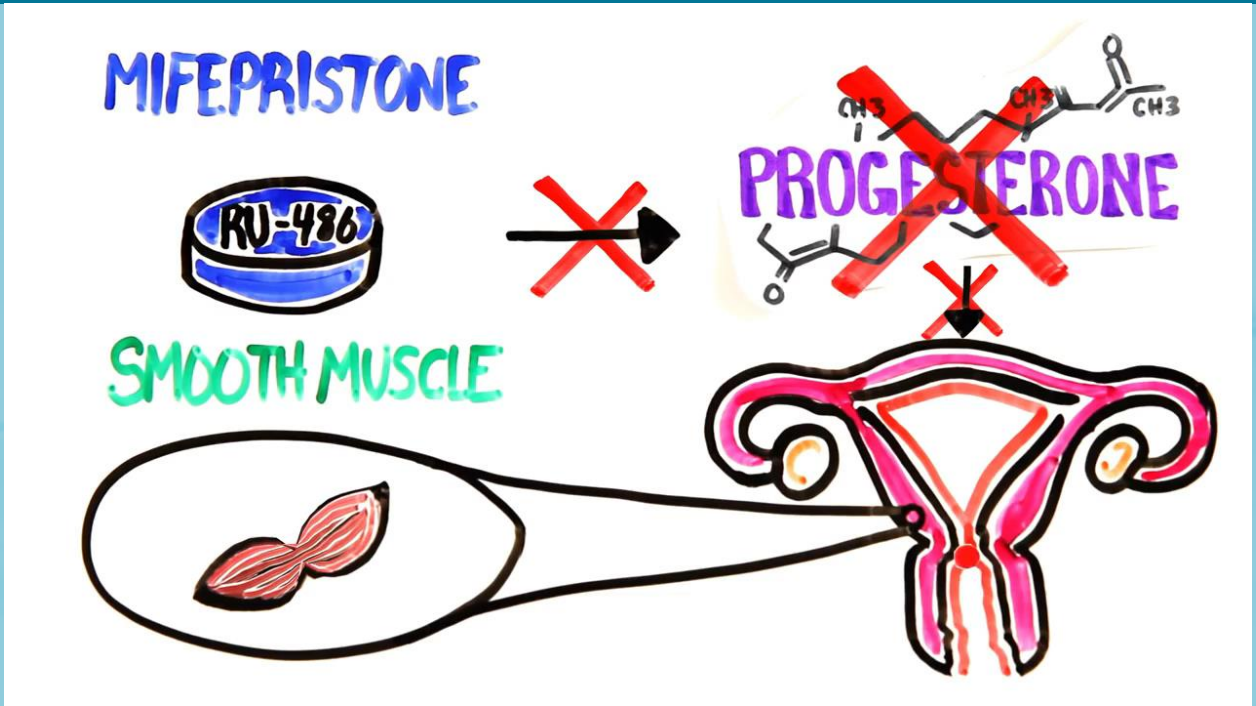


SURGICAL

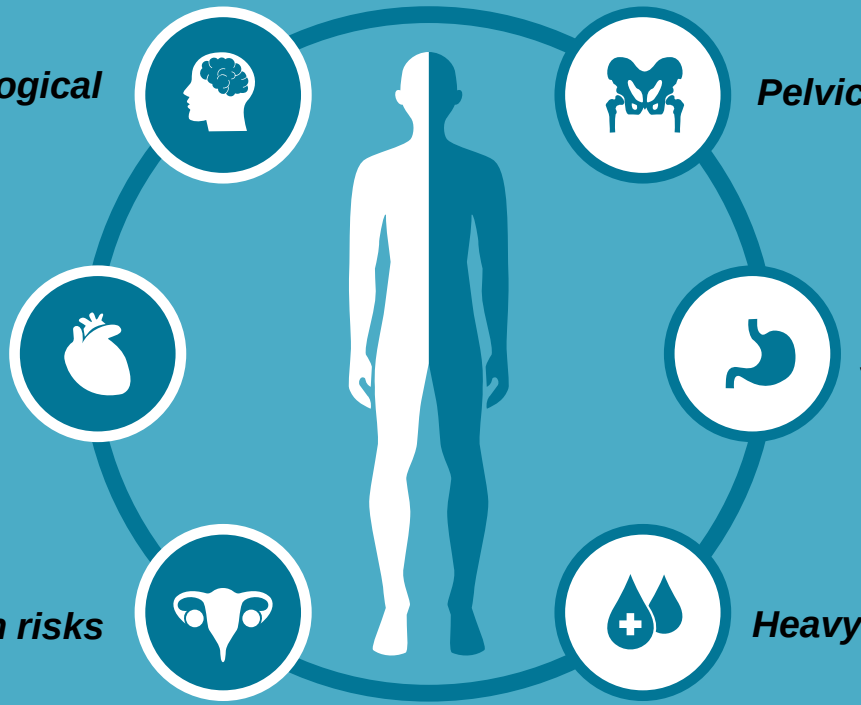
The Abortion Pill



Surgical Abortion



! Abortion Risks !



Emotional, psychological

Pelvic infection

Blood clots in the uterus

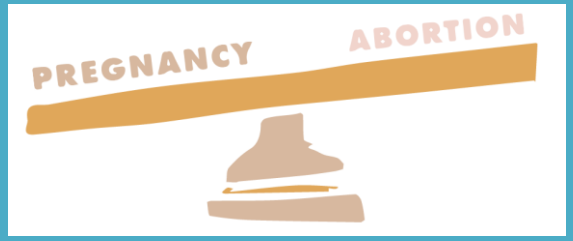
Scar tissue on the uterine wall

Incomplete abortion risks

Heavy bleeding

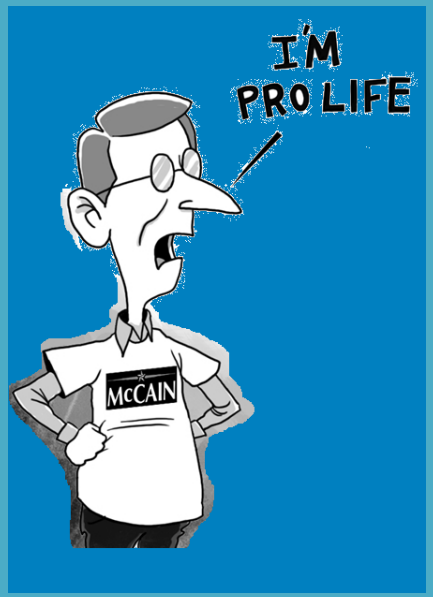
PRO-LIFE

- Unborn babies are humans
- Baby's right to live
- Religious reasons
- Moral reasons
- Health risks
- Other options



PRO-CHOICE

- Women's right to chose
- Embryo ≠ Baby
- Socio-economic reasons
- Unwanted child
- Mother's mental health

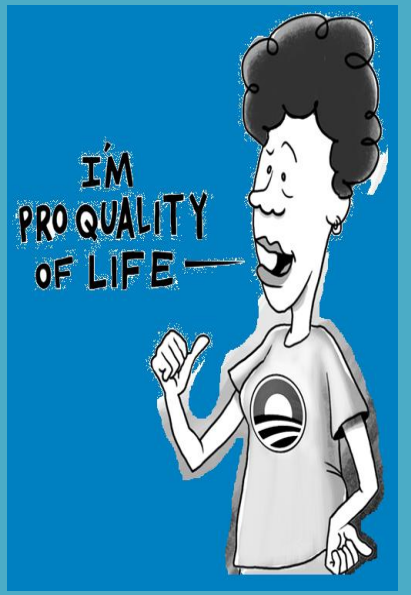


Embryo = Baby

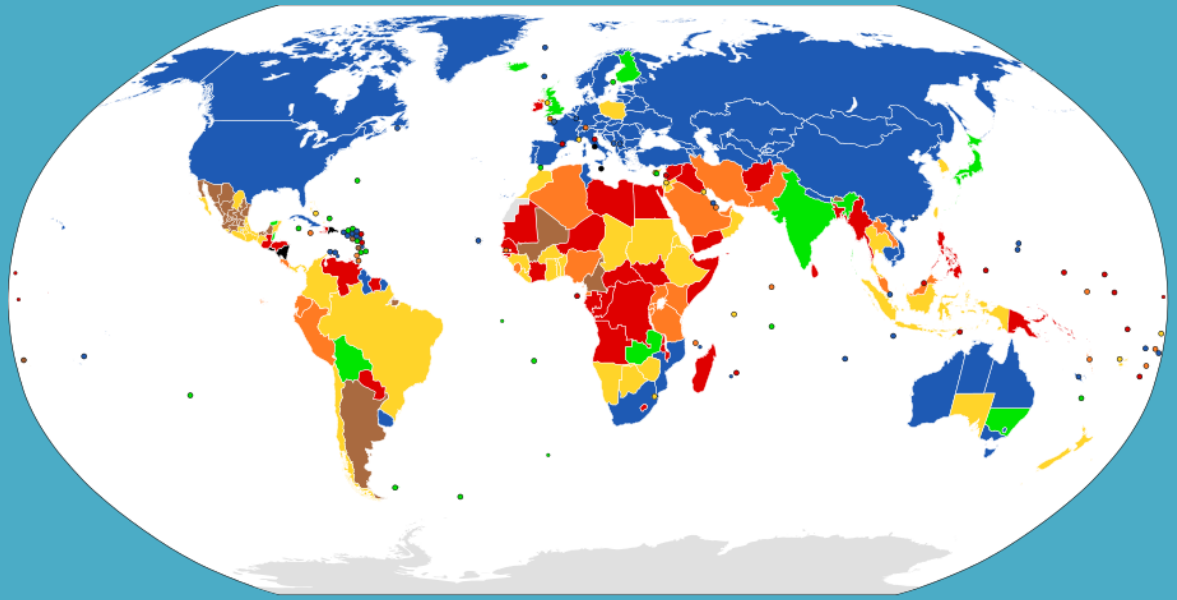
Contraceptives

Consequences

Emotional harm for the mother



Abortion Laws Throughout the World



- legal on request
- legal for maternal life, health, mental health, rape and/or fetal defects, and also for socio-economic factors
- illegal with exception for maternal life
- illegal with no exceptions

Andorra
Malta
San Marino
Dominican Republic
Iraq

“No **woman** has an abortion for **fun.**”

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Thank you!

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and Pharmacy Timisoara, Romania

EVERYDAY QUESTIONS ANSWERED

ANDREEA-ALEXANDRA BENCHIȘ

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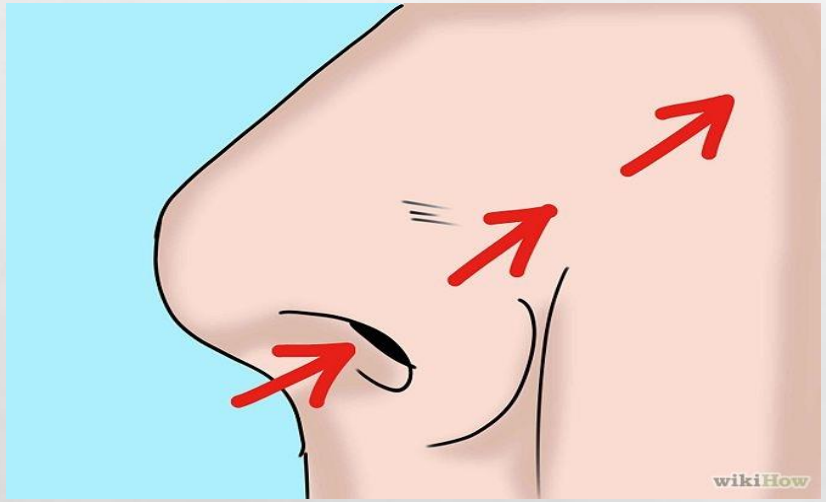
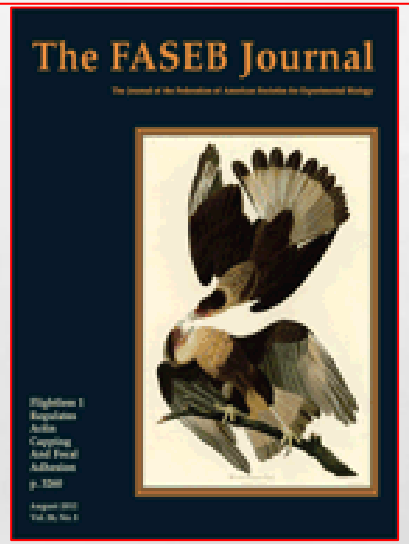
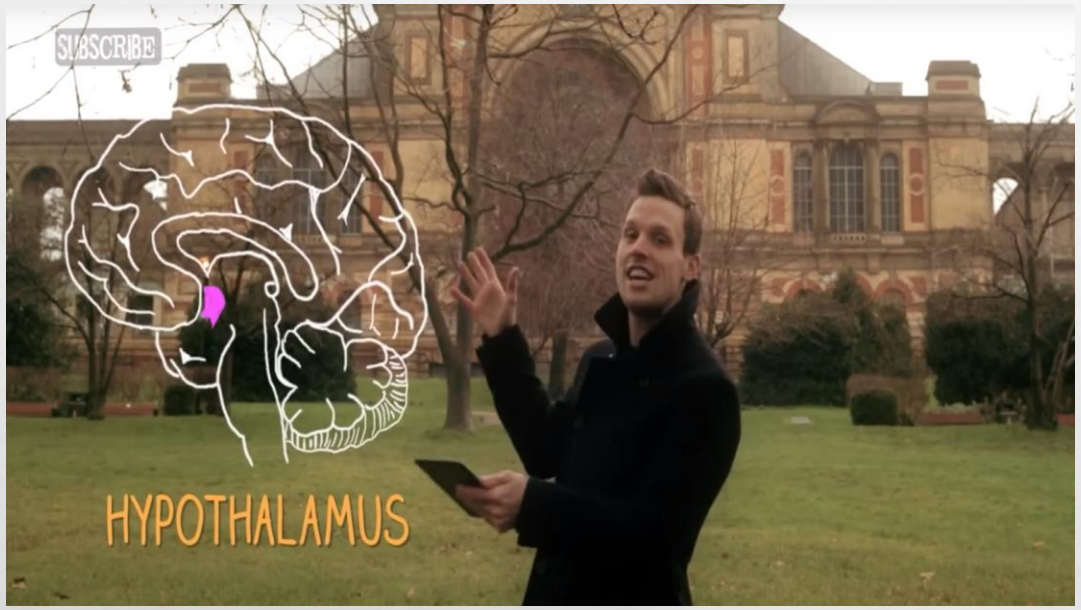
WHY DO WE SNEEZE?

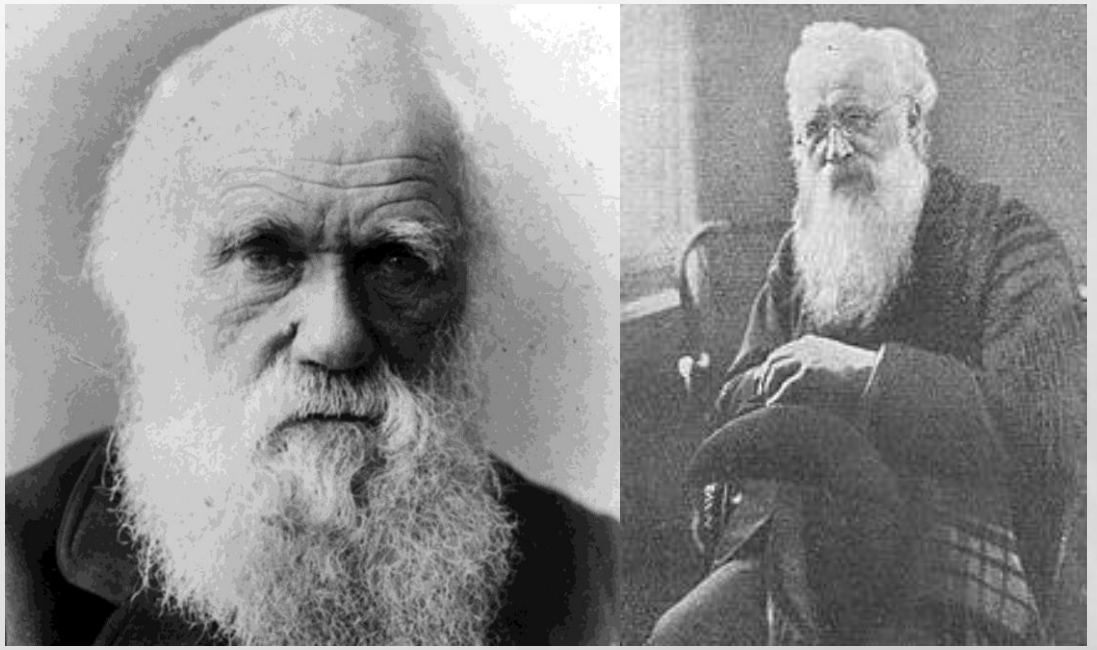
Molecular modulation of airway epithelial ciliary response to sneezing





WHY DO WE LAUGH WHEN WE ARE TICKLED?





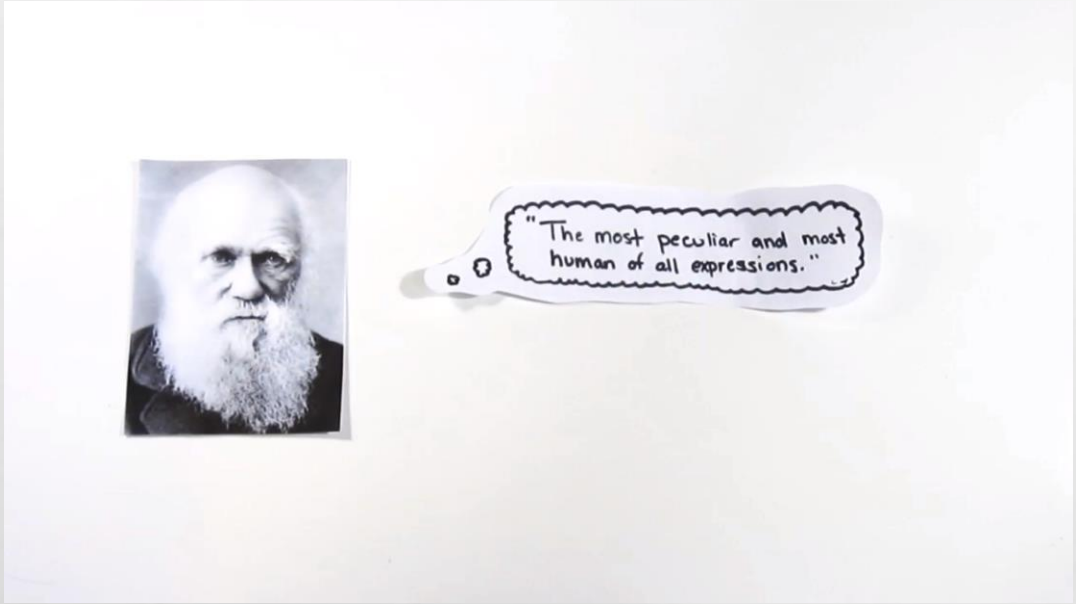
https://youtu.be/fF0ne49nwQc

WHAT CAUSES HICCUPS?

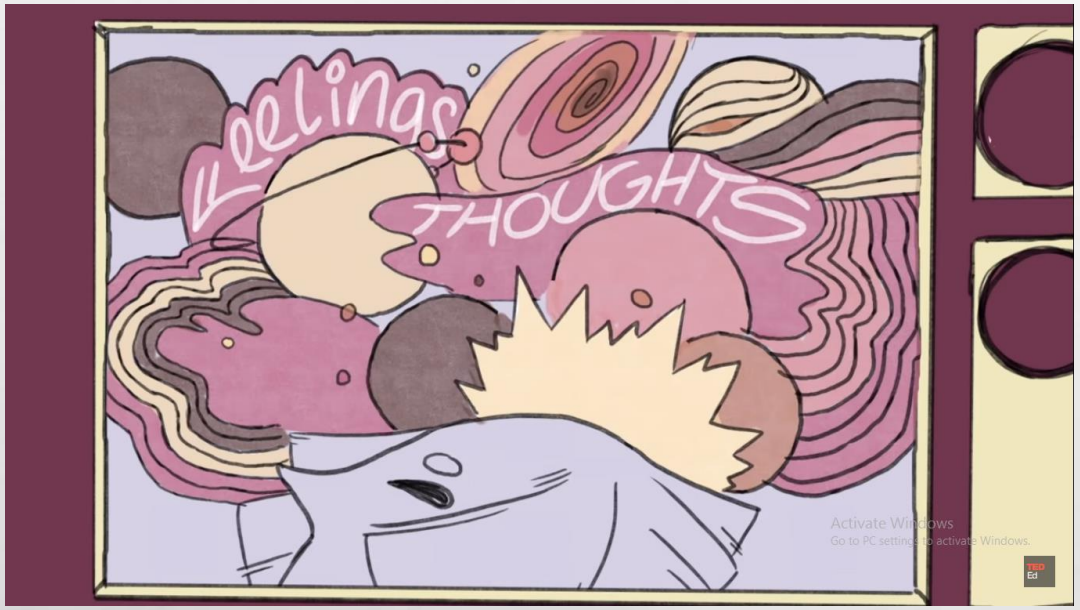
- DRINKING CARBONATED BEVERAGES
- DRINKING TOO MUCH ALCOHOL
- EATING TOO MUCH
- EXCITEMENT OR EMOTIONAL STRESS
- SUDDEN TEMPERATURE CHANGES
- DAMAGE OF THE VAGUS NERVES OR PHRENIC NERVES
- TUMOUR OR INFECTION IN YOUR CENTRAL NERVOUS SYSTEM

WHY DO WE YAWN?

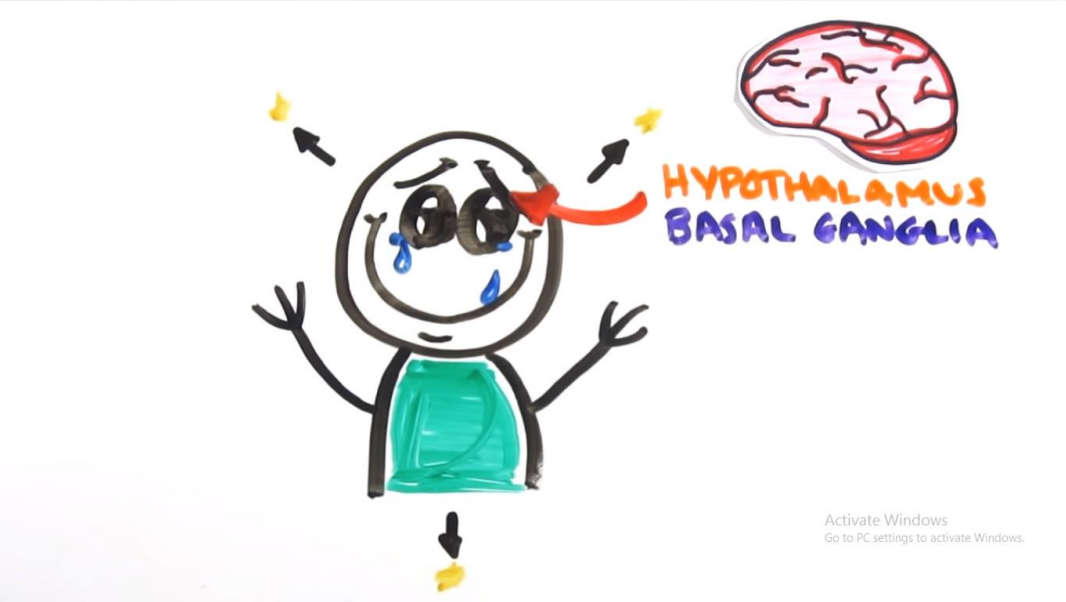
WHY DO WE BLUSH?

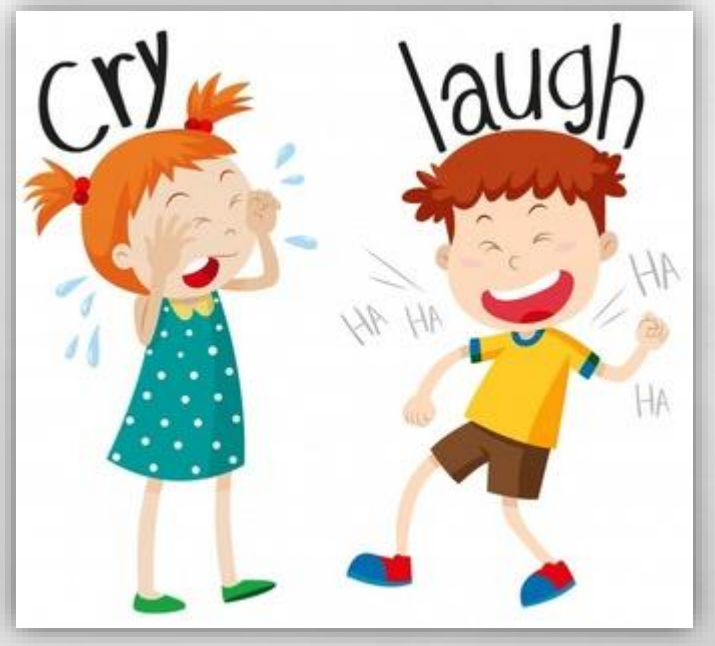


WHY DO WE DREAM?

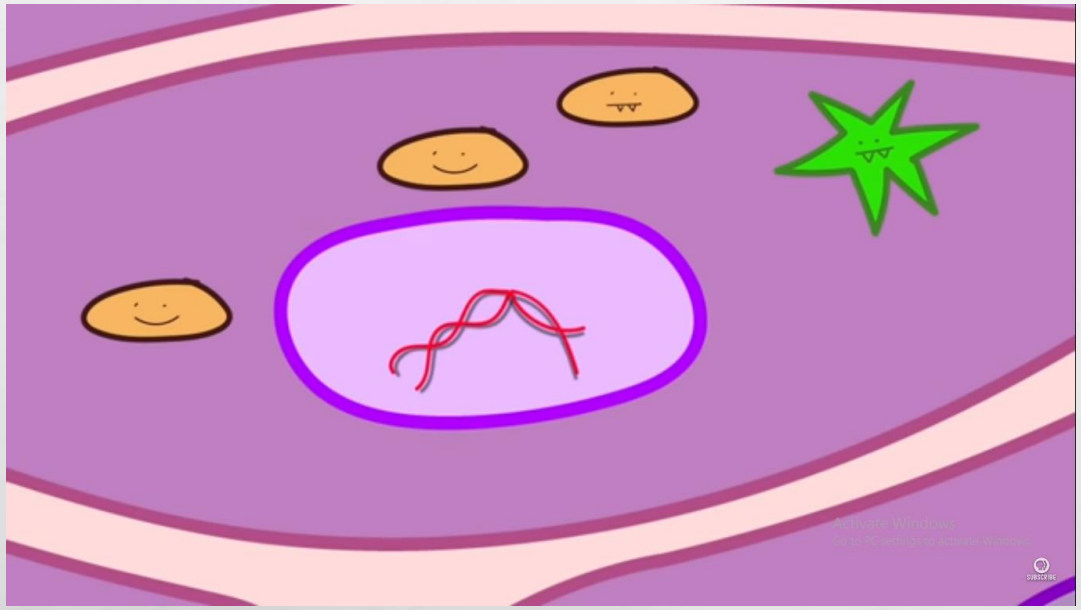


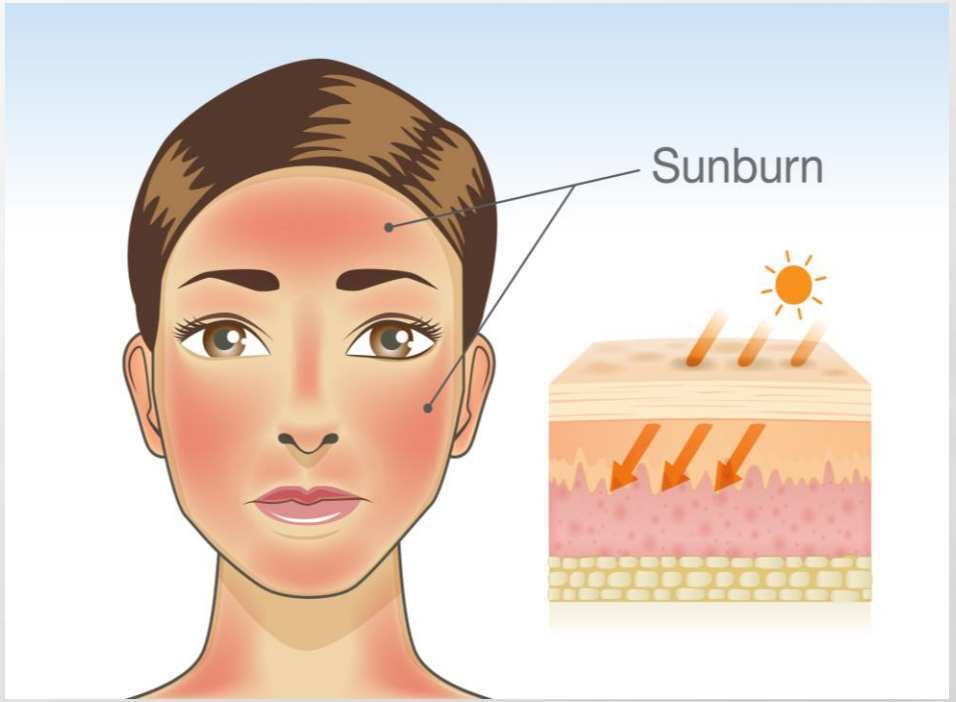
WHY DO WE CRY?


HYPOTHALAMUS
BASAL GANGLIA
Activate Windows
Go to PC settings to activate Windows.

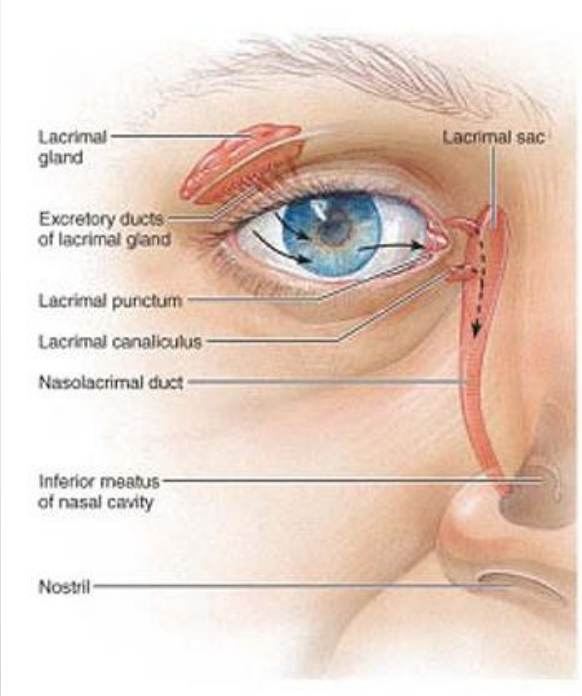

cry
laugh
HA
HA
HA
HA

WHY DO WE GET SUNBURNS?





WHY DO WE BLINK?



REVISION

- Why do we sneeze?
  - **Defences against invading bacteria**
- Why do we laugh when we are tickled?
  - **Submission to the agressor**
- What causes hiccups?
  - **Damage of the CNS**
- Why do we yawn?
  - **Temperature regulation**
- Why do we blush?
  - **Dilatation of blood vessels**
- Why do we dream?
  - **To reset**
- Why do we cry?
  - **Mechanism to shed stress**
- Why do we get sunburns?
  - **Uv radiation**
- Why do we blink?
  - **Keeps eyes safe from damaging stimuli**

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3. HTTPS://WWW.MAYOCLINIC.ORG/DISEASES-CONDITIONS/HICCUPS/SYMPTOMS-CAUSES/SYC-20352613
4. HTTPS://WWW.HEALTHLINE.COM/HEALTH/WHY-DO-WE-YAWN
5. HTTPS://WWW.YOUTUBE.COM/WATCH?V=-QDI7IBYGVY
6. HTTPS://WWW.WEBMD.COM/SLEEP-DISORDERS/GUIDE/DREAMING-OVERVIEW#1
7. HTTPS://WWW.YOUTUBE.COM/WATCH?V=QGDHJSIR1Z0
8. HTTPS://WWW.YOUTUBE.COM/WATCH?V=HFQSWNDCVS0
9. HTTPS://IRISTECH.CO/BLINK-DETECTION/

THANKS!

AND KEEP YOURSELVES SAFE ☺

"Victor Babes" University of Medicine and Pharmacy Timisoara, Romania

Biggest Epidemics in History

Vlad-Alexandru Bereteu

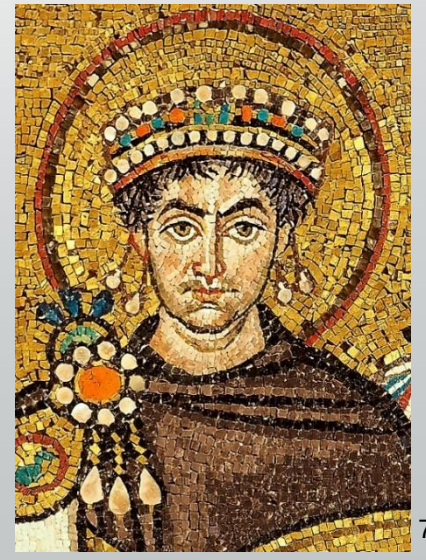
Plague of Justinian

Plague of Justinian (541–542 AD, with recurrences until 750) was a pandemic that afflicted:

- the Byzantine (Eastern Roman) Empire and especially its capital, Constantinople
- the port cities around the entire Mediterranean Sea, as merchant ships harbored rats that carried fleas infected with plague

One of the deadliest pandemics in history:

- deaths of an estimated 25–100 million people during two centuries of recurrence
- a death toll equivalent to as much as half of Europe's population at the time of the first outbreak
- caused by the same bacteria that caused The Black Death
- named after Justinian I, who was emperor at the time of the initial outbreak. Justinian himself contracted the disease, but survived.

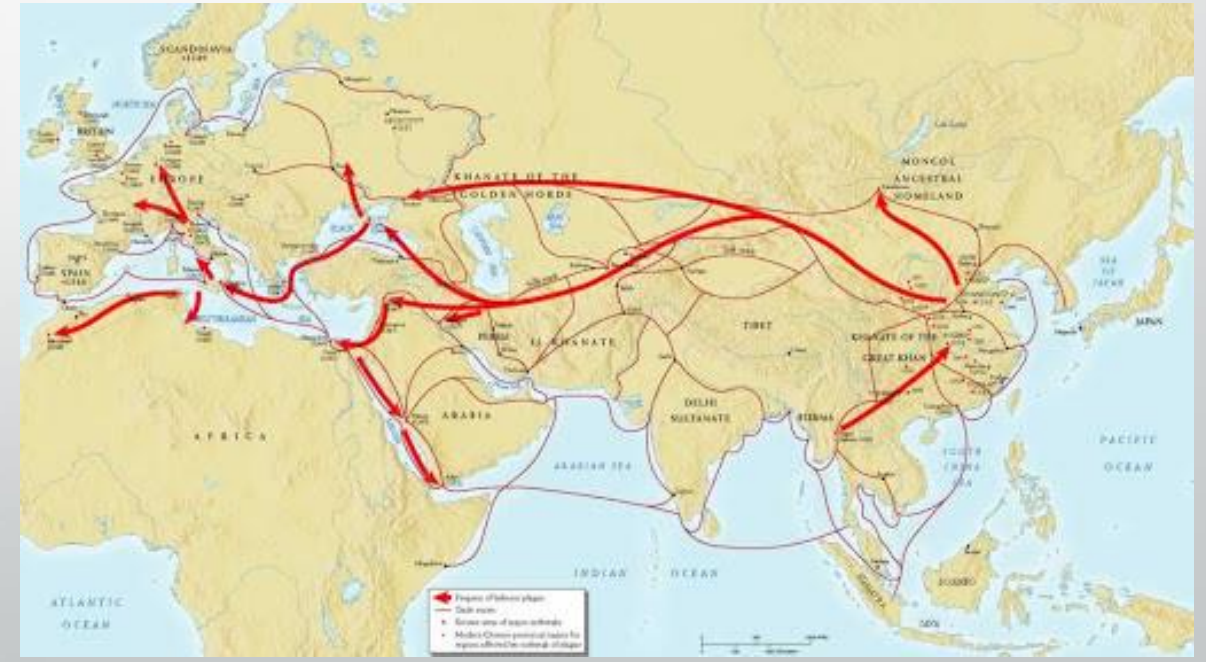


Justinian I

The Black Death

The **Black Death**, also known as the **Pestilence**, **Great Bubonic Plague**, the **Great Plague** or the **Plague**, or less commonly the **Great Mortality** or the **Black Plague:**

- was the most devastating pandemic recorded in human history
- resulted in the deaths of an estimated **75 to 200 million people** in Eurasia
- peaked in Europe from 1347 to 1351



Rat flea

Yersinia pestis

Black rat

The Black Death

- probably originated in Central Asia or East Asia, from where it travelled along the Silk Road, reaching Crimea by 1343
- it was most likely carried by fleas living on the black rats that travelled on Genoese merchant ships, spreading throughout the Mediterranean Basin, reaching the rest of Europe via the Italian peninsula

Signs and symptoms

‘In men and women alike it first betrayed itself by the emergence of **certain tumours** in the groin or armpits, some of which grew as large as a common apple, others as an egg ... From the two said parts of the body this deadly gavocciolo soon began to propagate and spread itself in all directions indifferently; after which the form of the malady began to change**, black spots or livid making their appearance in many cases on the arm or the thigh** or elsewhere, now few and large, now minute and numerous.’ (Giovanni Boccaccio, *Decameron*)

’This was followed by :

- acute fever
- vomiting of blood
- most victims died two to seven days after initial infection
- freckle-like spots and rashes, which could have been caused by flea-bites were identified as another potential sign of the plague

The Spanish flu

The **Spanish flu**, also known as the **1918 flu pandemic**, was an unusually deadly influenza pandemic.

- lasted from January 1918 to December 1920
- infected 500 million people – about a quarter of the world's population at the time
- the death toll is estimated to have been anywhere from 17 million to 50 million, and possibly as high as 100 million, making it one of the deadliest epidemics in human history
- had a rapid decline

One explanation for the rapid decline in the lethality of the disease is that doctors became more effective in the prevention and treatment of **the pneumonia** that developed after the victims had contracted the virus. Another theory holds that the 1918 virus mutated extremely rapidly to a less lethal strain (a common occurrence with influenza viruses).

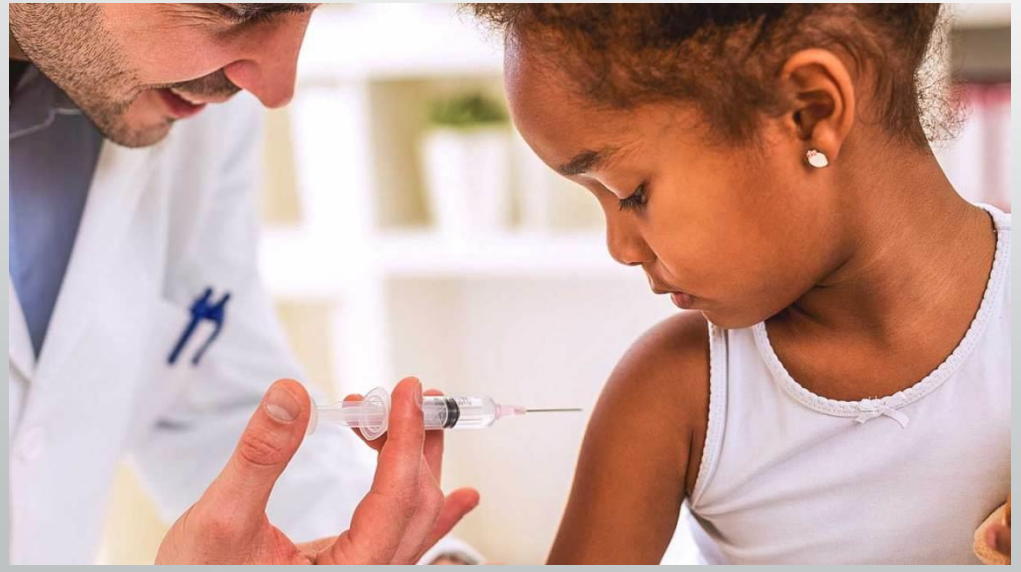
- the Spanish flu was the first of two pandemics caused by the H1N1 influenza virus; the second was the swine flu in 2009
- the Spanish flu pandemic resulted in a higher than expected mortality rate for young adults
- some analyses have shown the virus to be particularly deadly because it triggers a cytokine storm, which ravages the stronger immune system of young adults

Symptoms:

- flu symptoms
- skin turns blue and lungs fill with fluid that leads to suffocation

Other severe epidemics

- Small pox – 500 mil. deaths
- HIV/AIDS pandemics – 32 mil. deaths
- Hong Kong flu (H3N2) – 1 mil. deaths
- Third plague epidemic – 12 mil. deaths
- ……
- COVID-19 – 49,000 deaths (by 2nd of April 2020)



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- https://en.wikipedia.org/wiki/Plague_of_Justinian

Thank you!

UNIVERSITATEA
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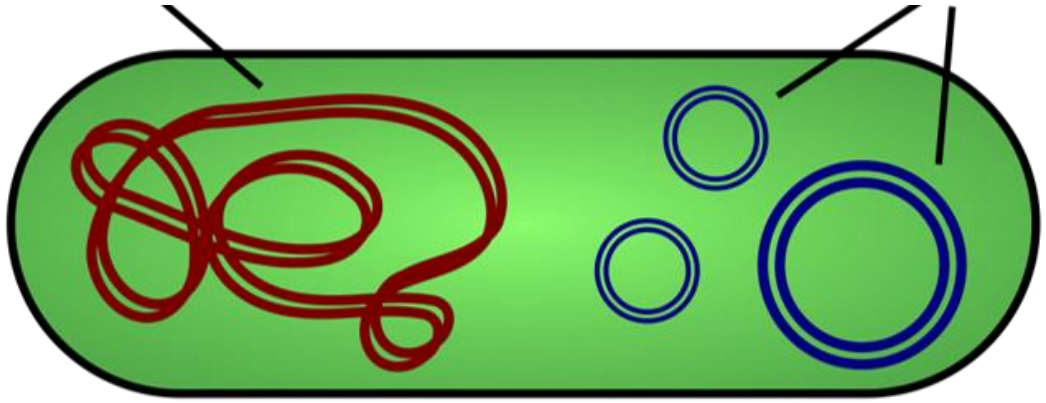
VICTOR BABEȘ | TIMIȘOARA

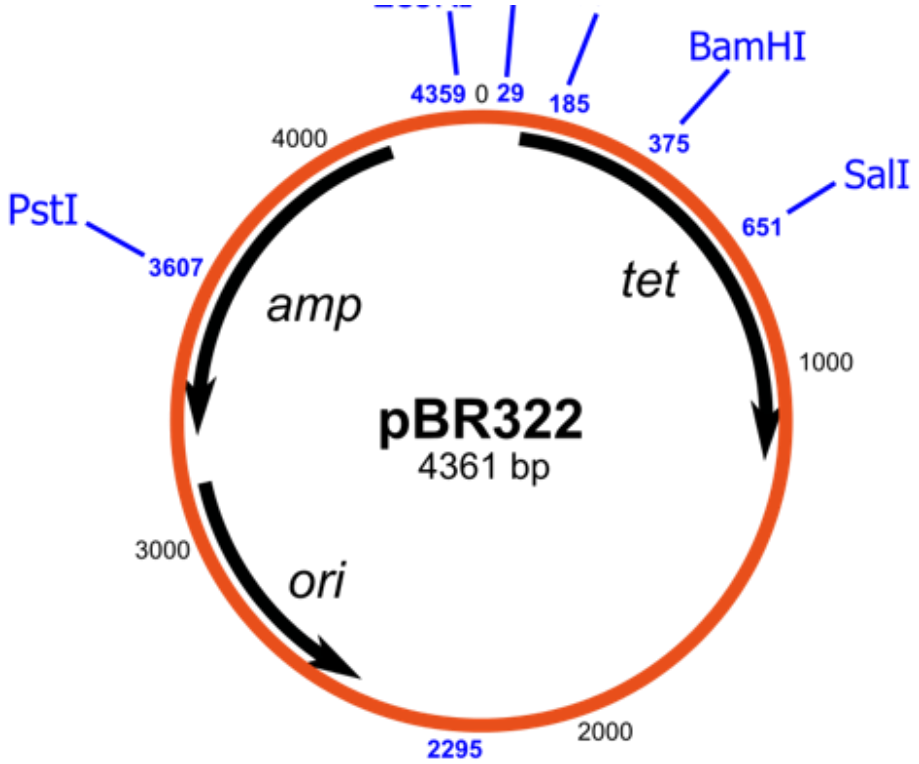
A PECULIAR MINDSET

MICROBIAL VECTORS AS VACCINES

Alexandra-Maria Borița

Ionuț-Radu Bulzan

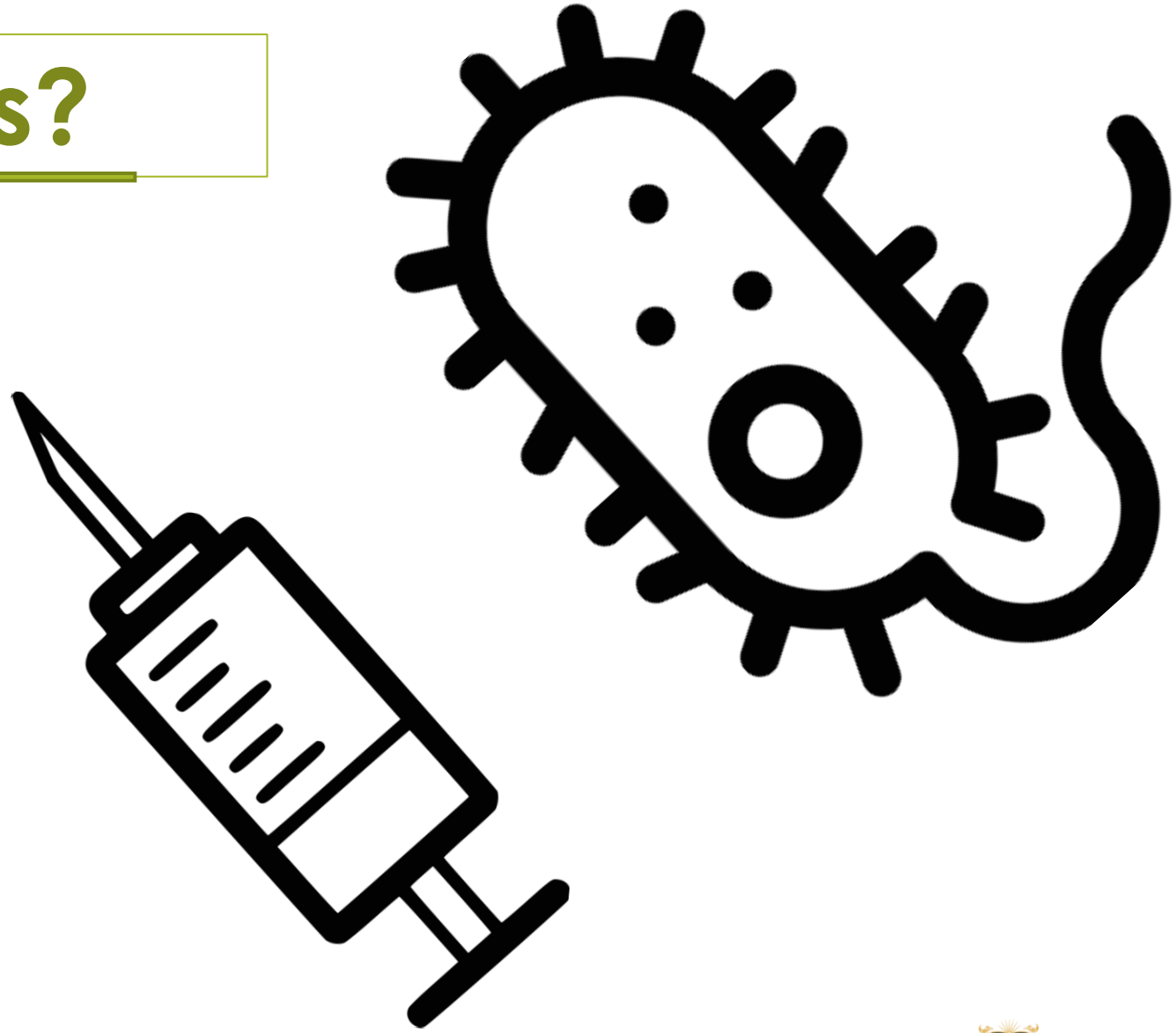




What are plasmids?

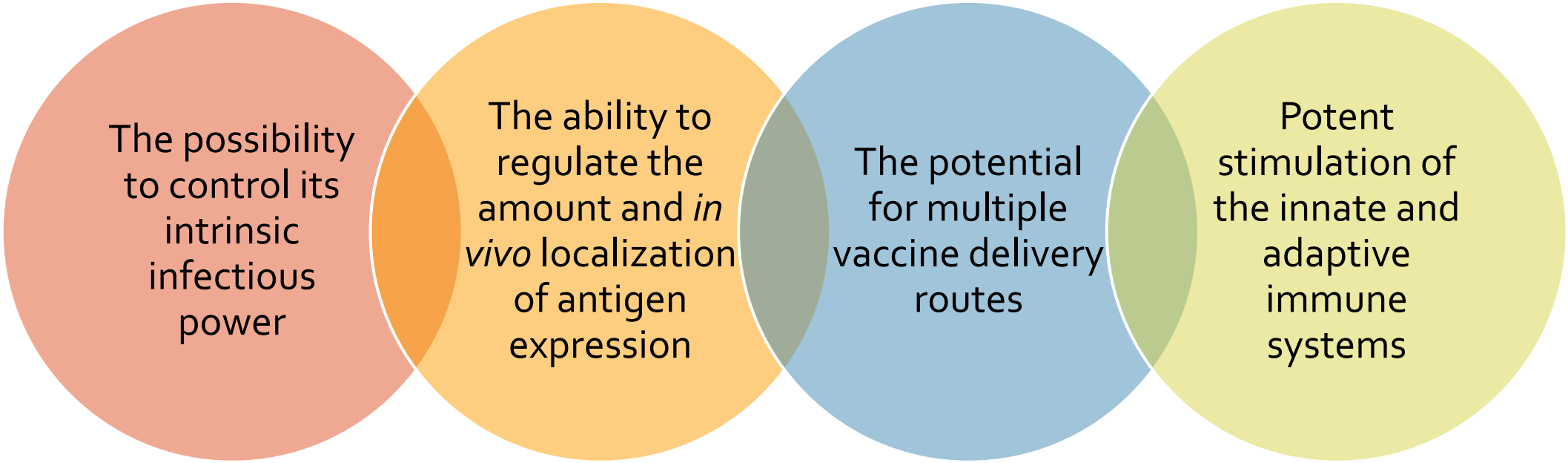
Microbial vectors?

- Genetically attenuated microorganisms
- Pathogens
- Commensal bacteria
- Antigens

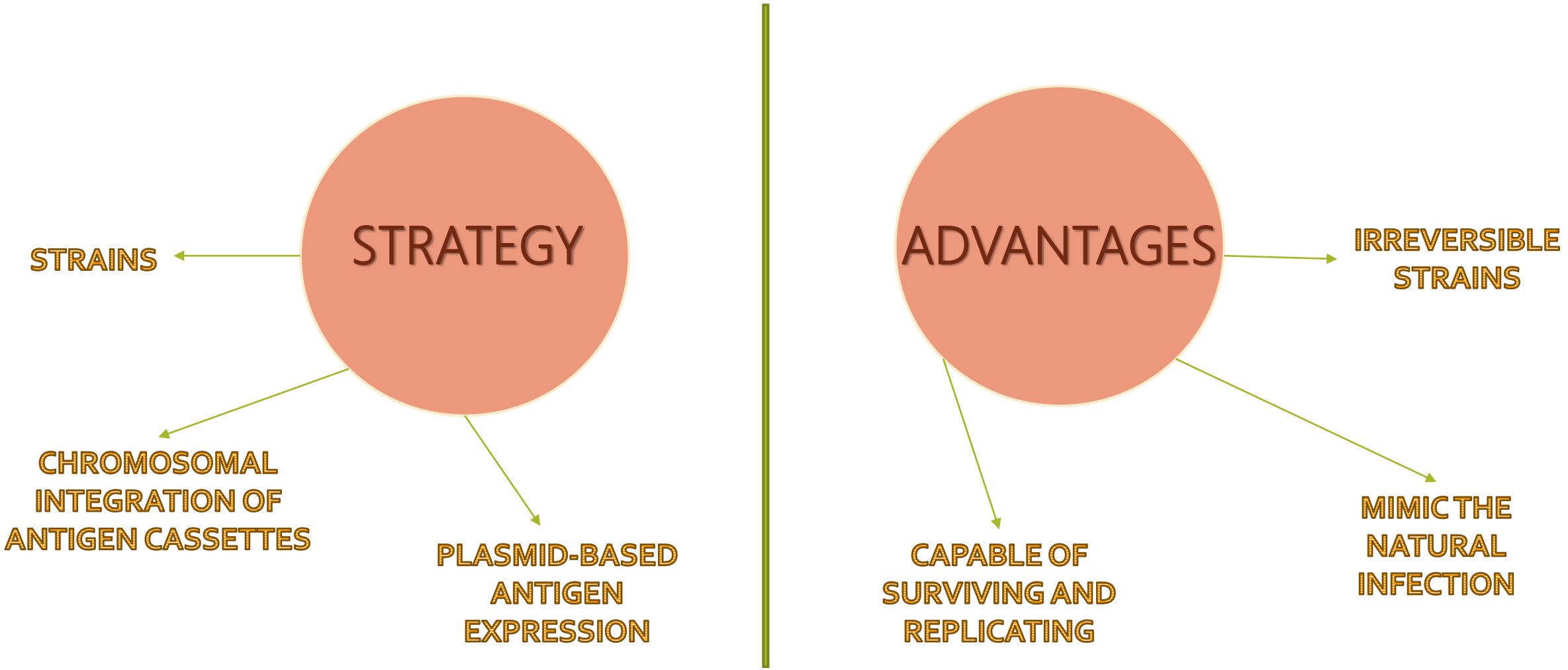


Why do we use them?

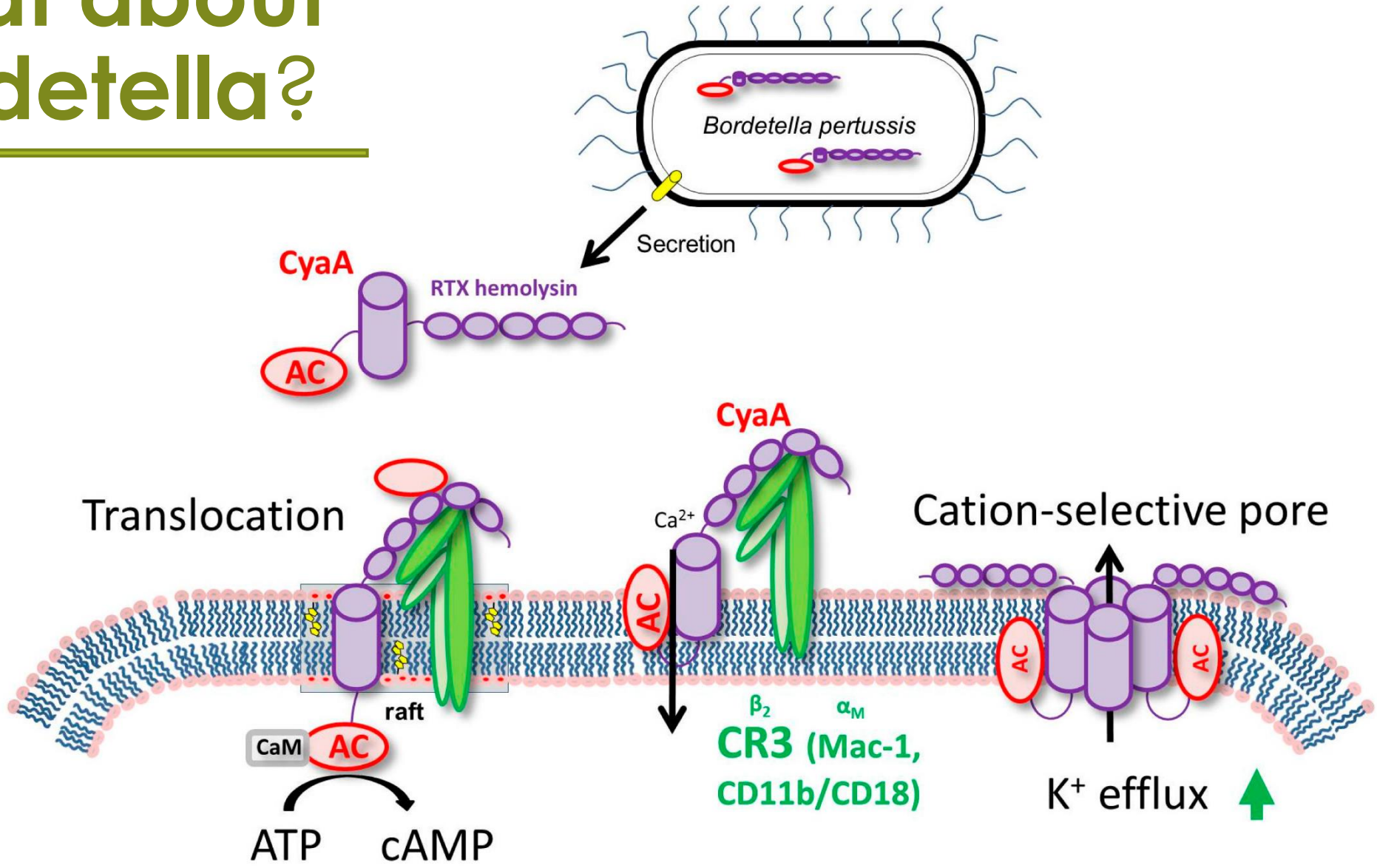
Are there any advantages?

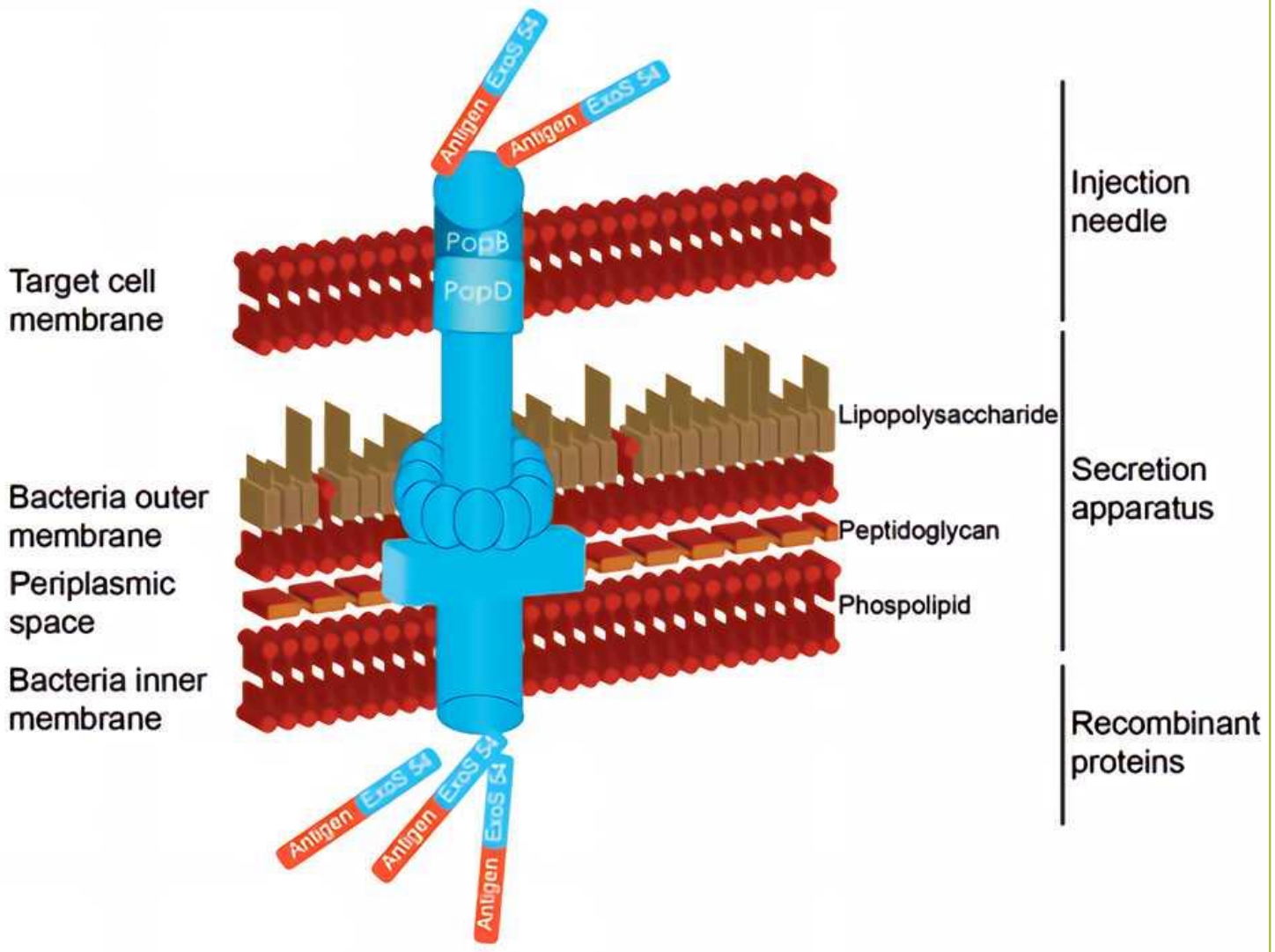


Salmonella as vaccine vector



What about Bordetella?





Pseudomonas aeruginosa Type III Secretion System

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THANK YOU FOR YOUR ATTENTION!

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VICTOR BABEȘ | TIMIȘOARA

Medicine in the Victorian Era

Briana Miruna Berar

Andreea Boroș

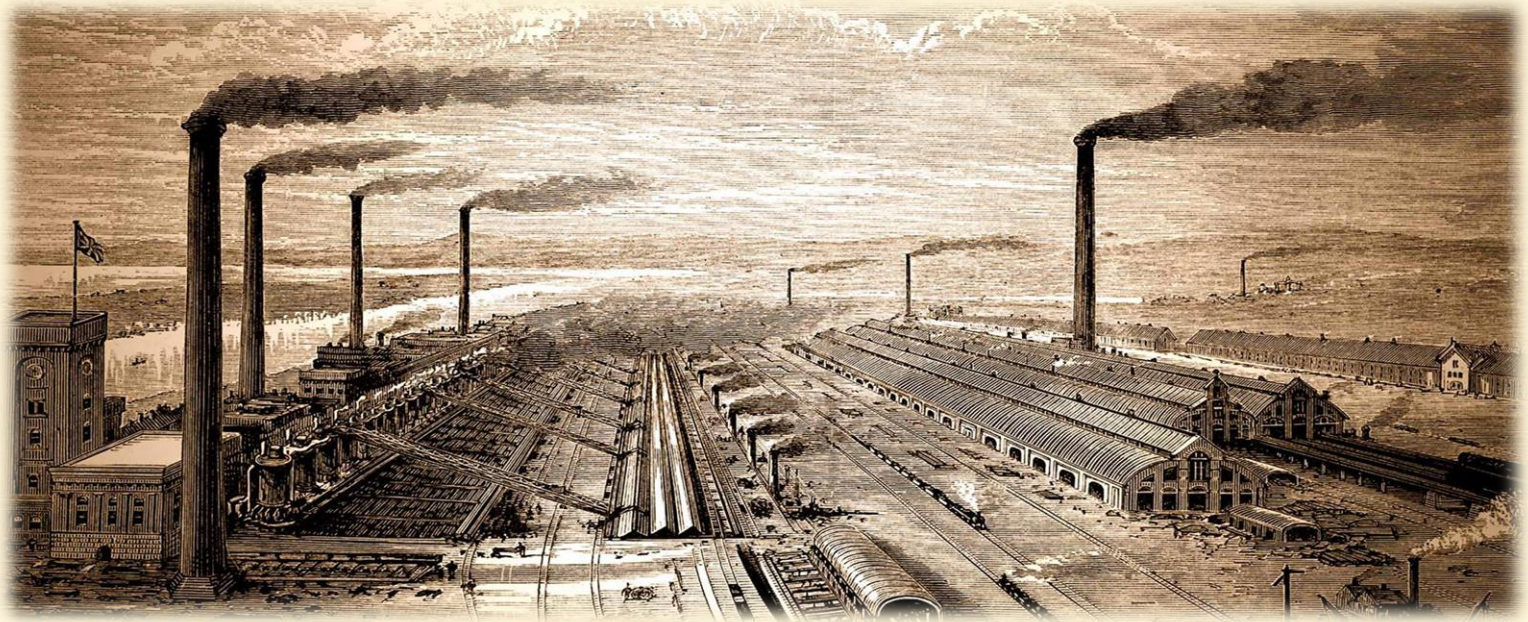
"Victor Babeș" University of Medicine and Pharmacy Timișoara, Romania

Table of contents

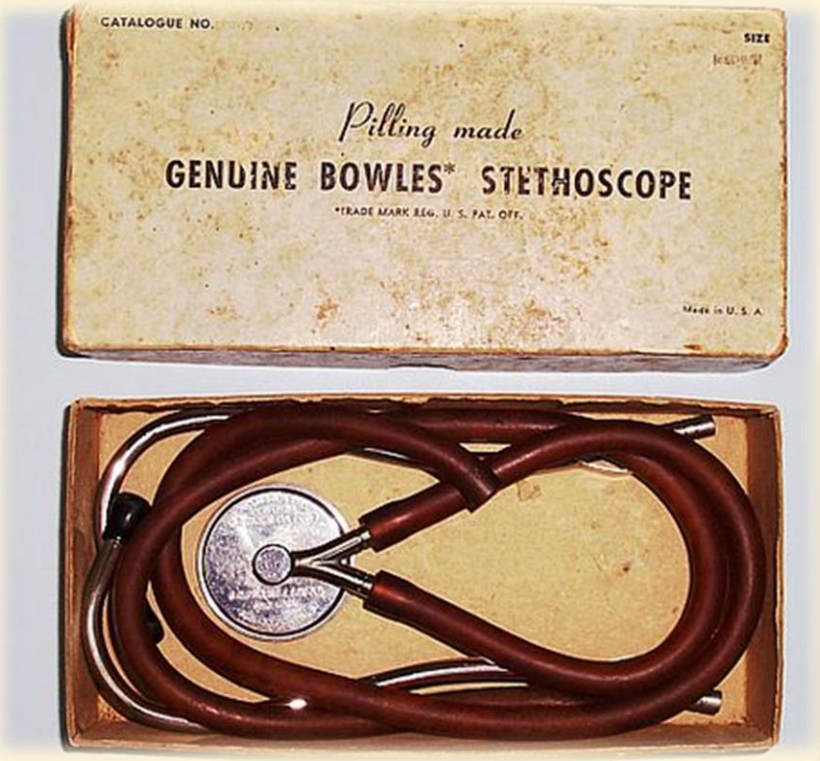
- General facts about the Victorian Era
- Discoveries: * X-Rays
  * The Stethoscope
  * Pharmacology
  * Anaesthetics
- Personalities: * John Snow
  * Louis Pasteur
  * Robert Koch
- Medical practices

General facts

- 1837- 1901
- Queen Victoria
- World's first Industrial Revolution, political reform and social change

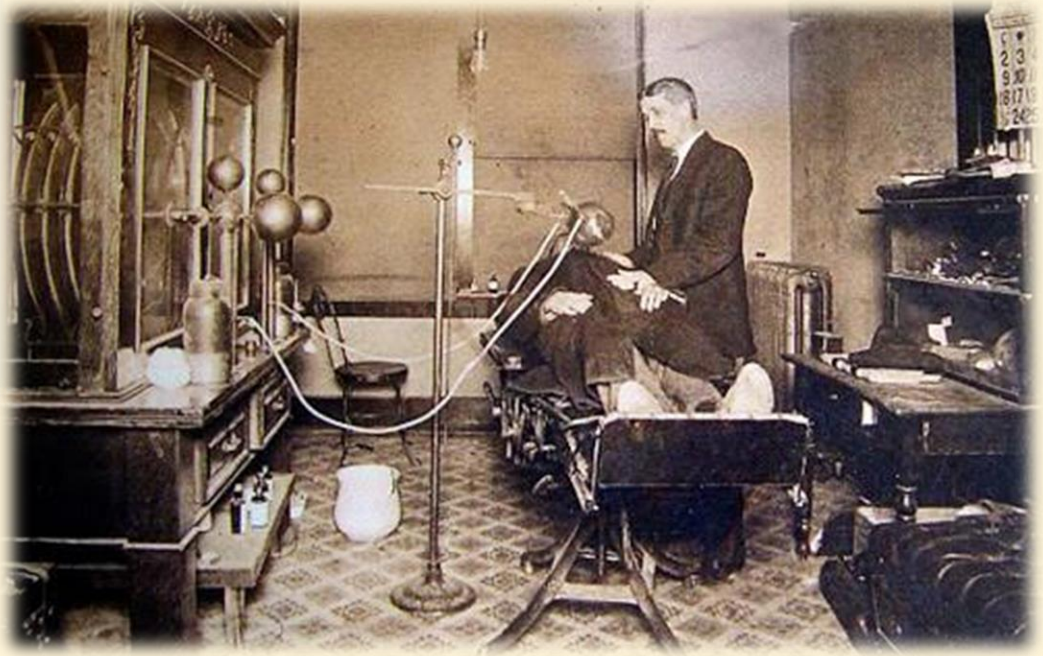


Discoveries



The Stethoscope

X-Rays

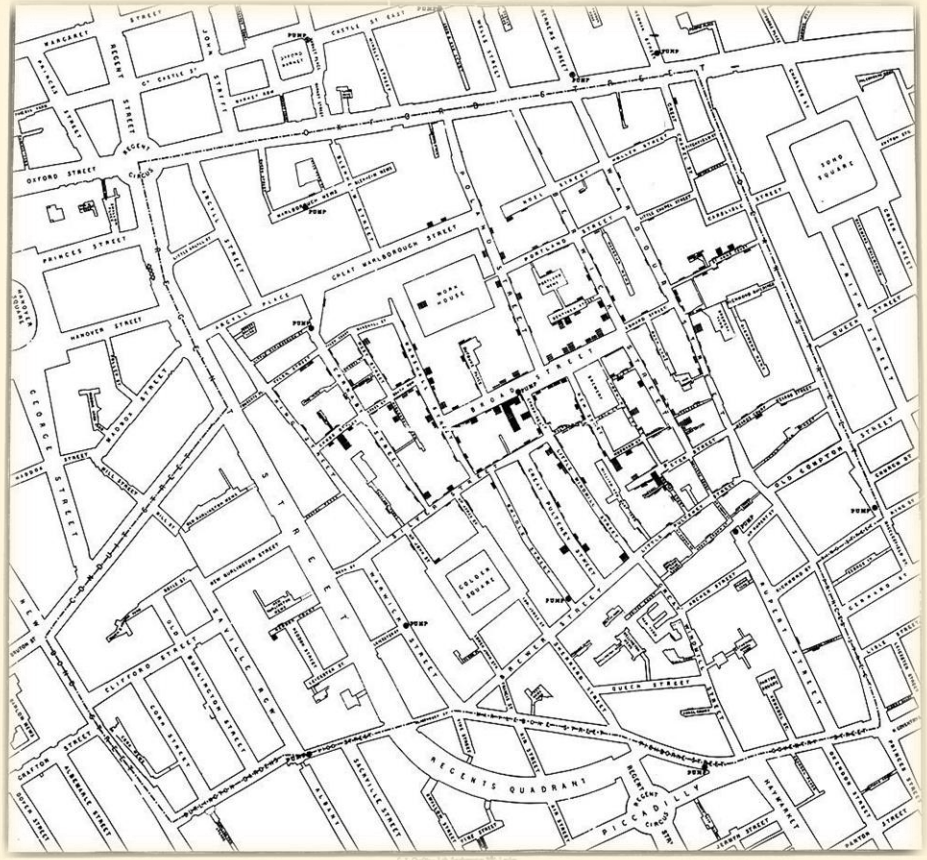


Discoveries

Anaesthetics

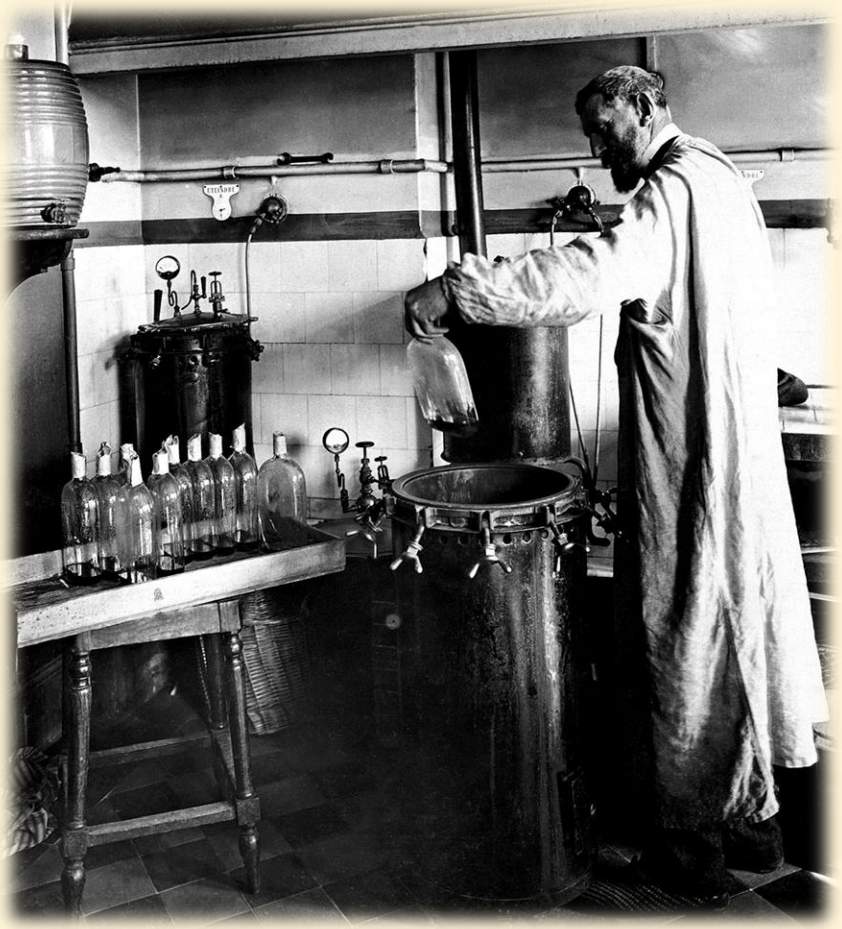
Pharmacology

Personalities



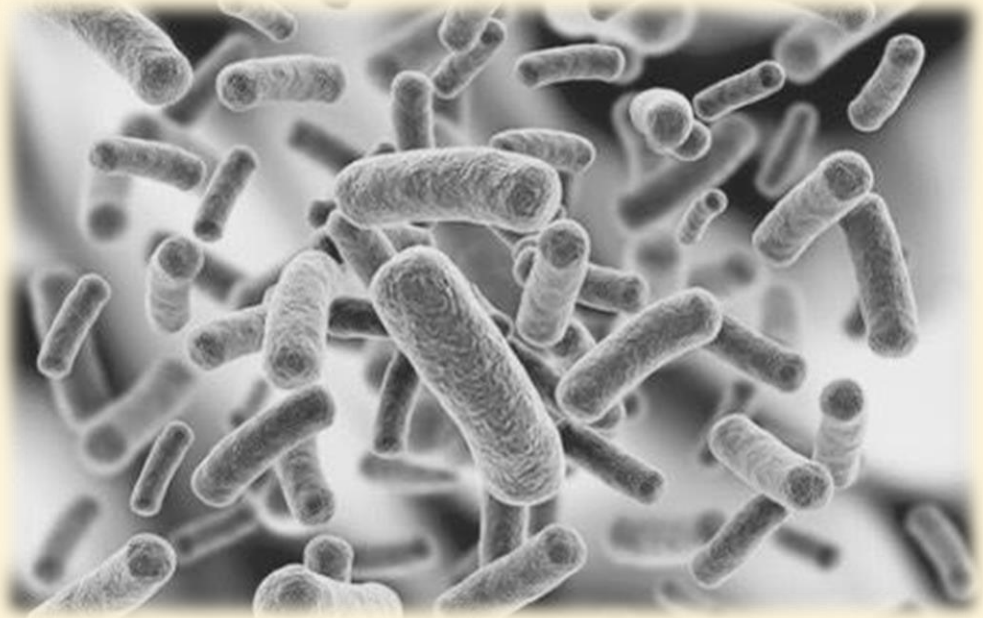
John Snow

Personalities



Louis Pasteur

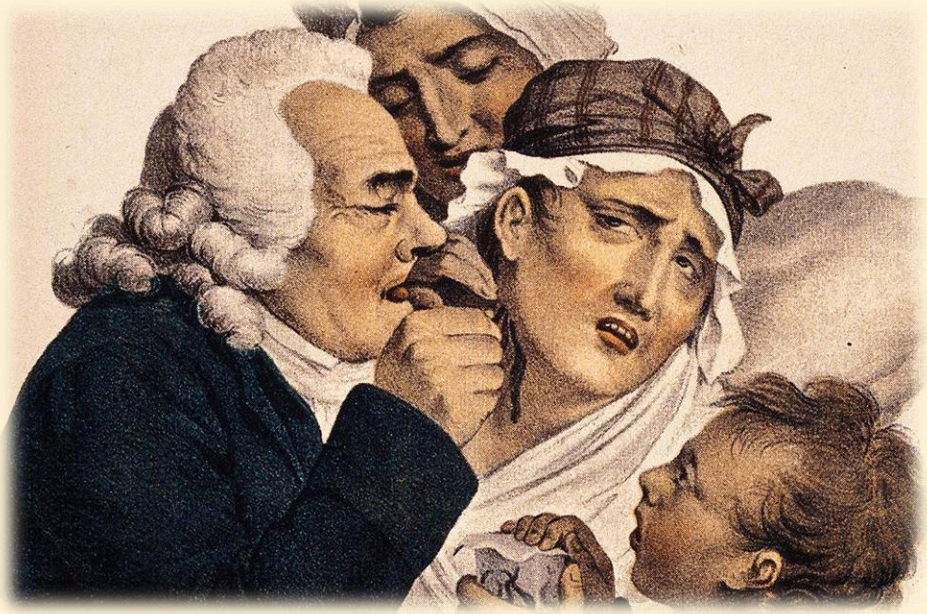
Personalities



Robert Koch

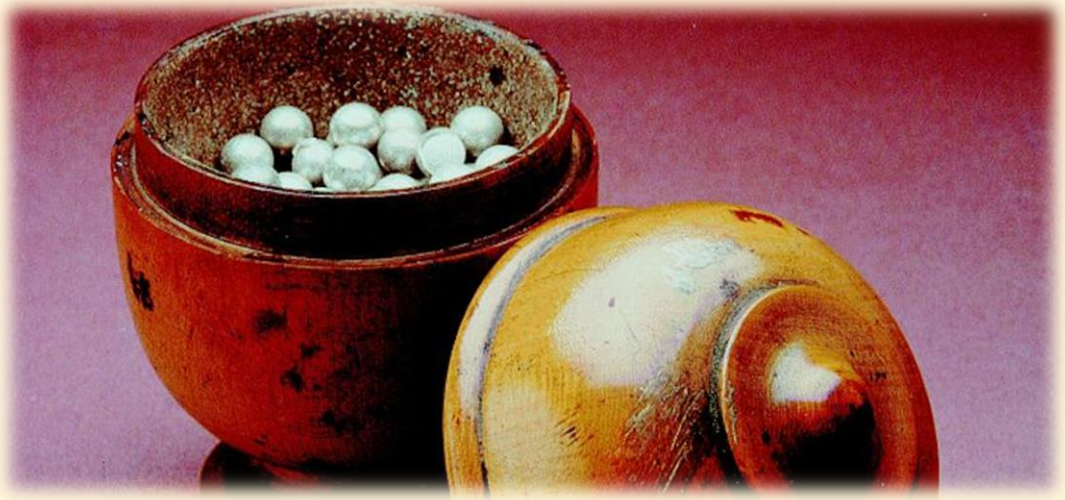
Medical practices

Leeches



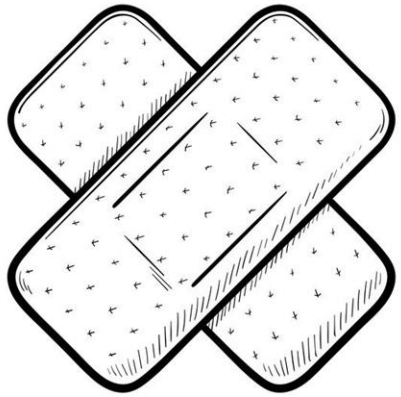
Plantain

Medical practices



The Everlasting Pill

Plasters



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Thank you for listening!

HALLUCINATIONS

Briana Miruna Berar

Andreea Boroș

"Victor Babeș" University of Medicine and Pharmacy
Timișoara, Romania

Contents


INTRODUCTION

WHAT ARE HALLUCINATIONS?

- They are perceived senses that are not based on reality.

HALLUCINATIONS ≠ IMAGINATIONS


HOW DO THEY WORK?

SENSATION AND PERCEPTION

Visual

Auditory

Olfactory

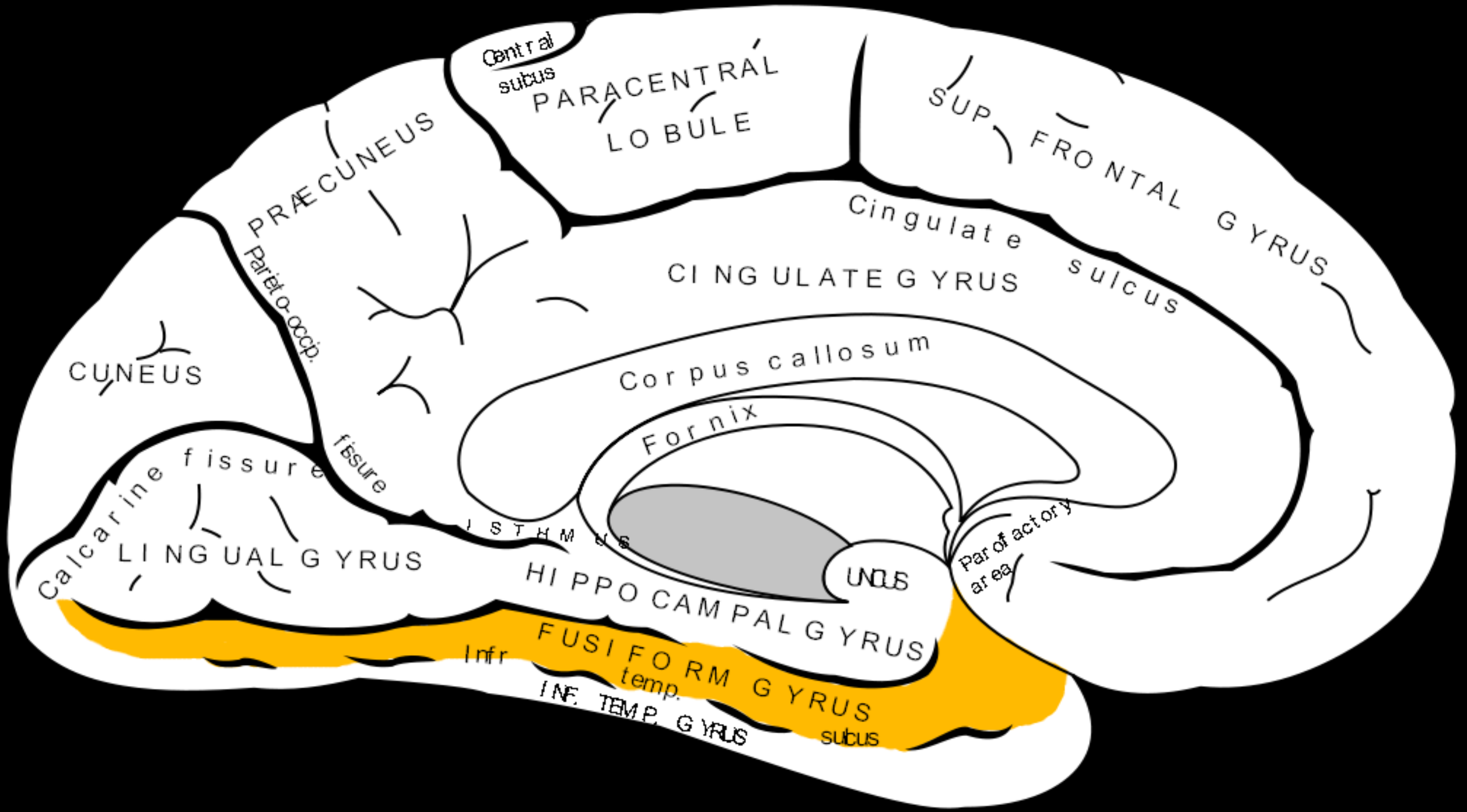
Tactile

Sensation →

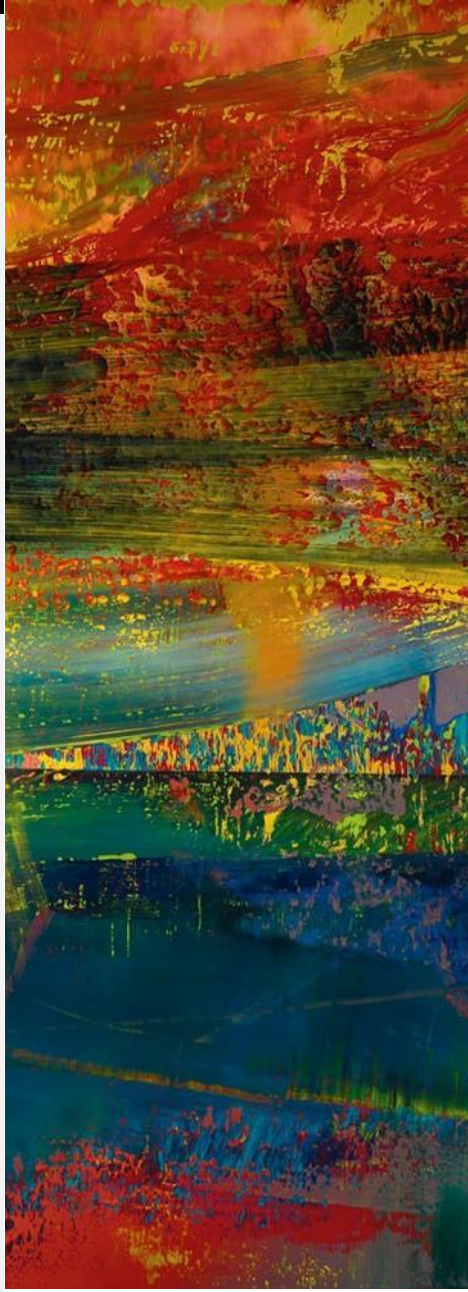
↓

Perception


TYPES OF HALLUCINATIONS


Central sulcus
PARACENTRAL LOBULE
SUP. FRONTAL GYRUS
PRAECUNEUS
Cingulate sulcus
CINGULATE GYRUS
Parieto-occip. fissure
CUNEUS
Corpus callosum
Fornix
Calcarine fissure
ISTHMUS
LINGUAL GYRUS
UNCUS
Par olfactory area
HIPPOCAMPAL GYRUS
Infr. temp. sulcus
FUSIFORM GYRUS
INF. TEMP. GYRUS

AUDITORY HALLUCINATIONS



Command voice
Running commentary
One / several voices talking at the same time

TACTILE HALLUCINATIONS

Involve the feeling of touch or movement in your body

OLFACTORY HALLUCINATIONS

Scents you find enjoyable

Common symptom for people with epilepsy


CONCLUSIONS

MAIN CAUSES

Mental health conditions
Substance use
Lack of sleep
Medications

LACK OF SLEEP

TIBI UȘERIU

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https://www.youtube.com/watch?v=SgOTaXhbqPQ

“ 27 de pași “ – Tibi Ușeriu

Thank you !

Bioterrorism – Weapon of Mass Destruction

Andrei-Viorel Bosoancă

“Victor Babeș” University of Medicine and Pharmacy

Timișoara, Romania

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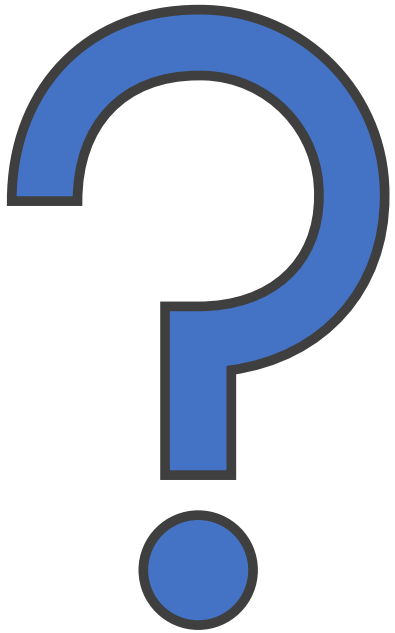


What is bioterrorism ?

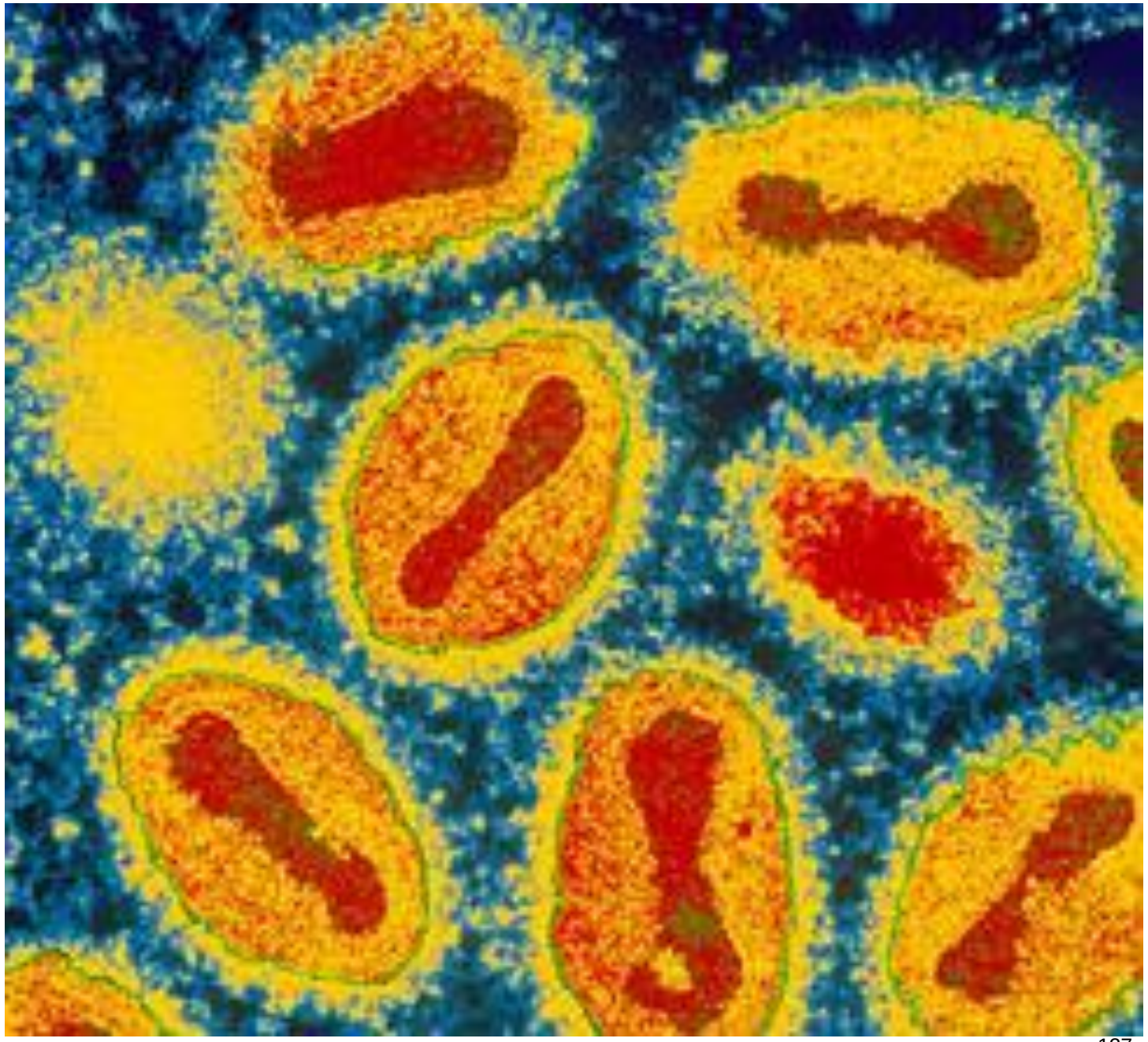
- A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants.

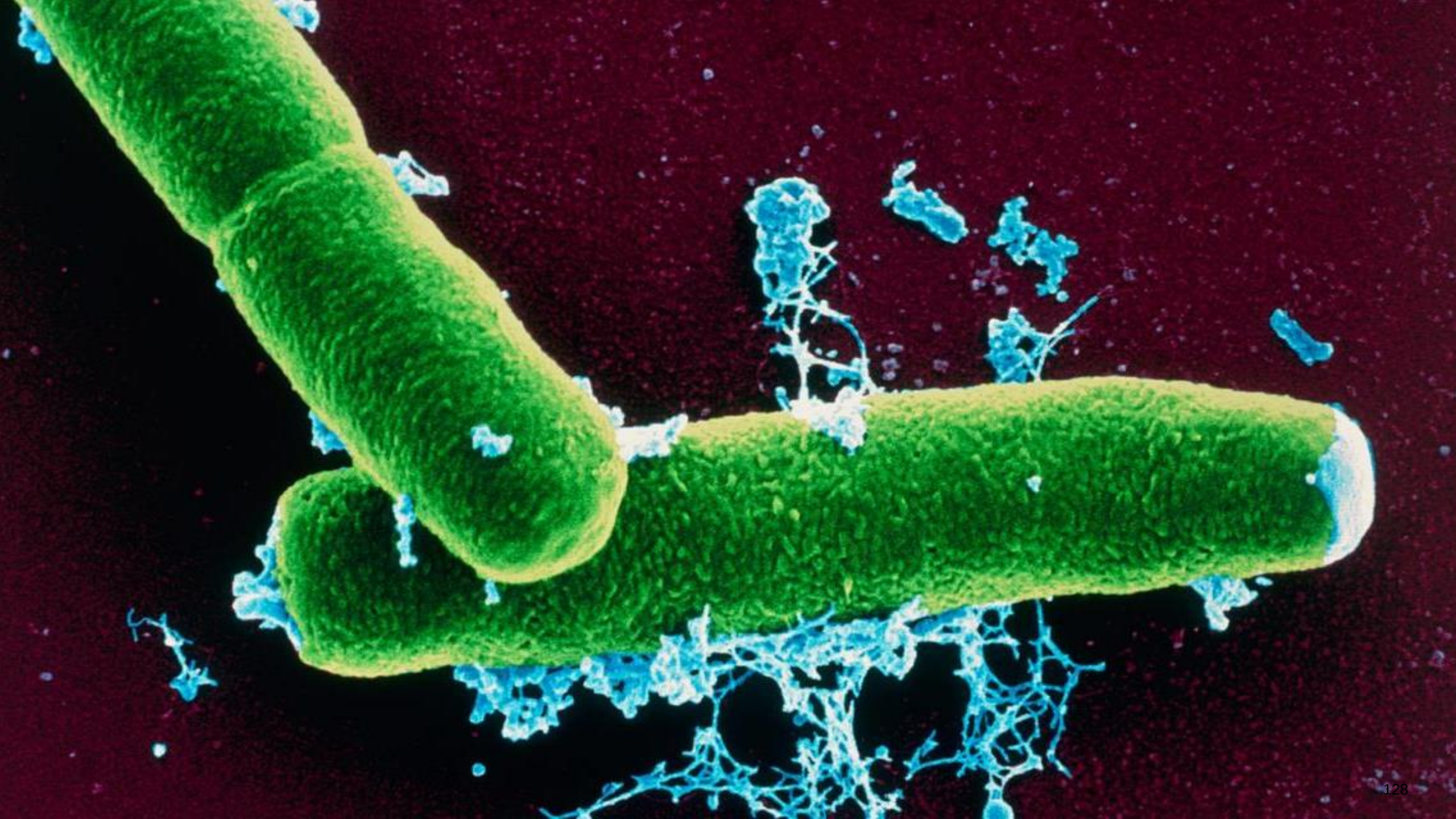
- Terrorists may use biological agents because they can be extremely difficult to detect and *do not cause illness for several hours to several days*.

Spreading

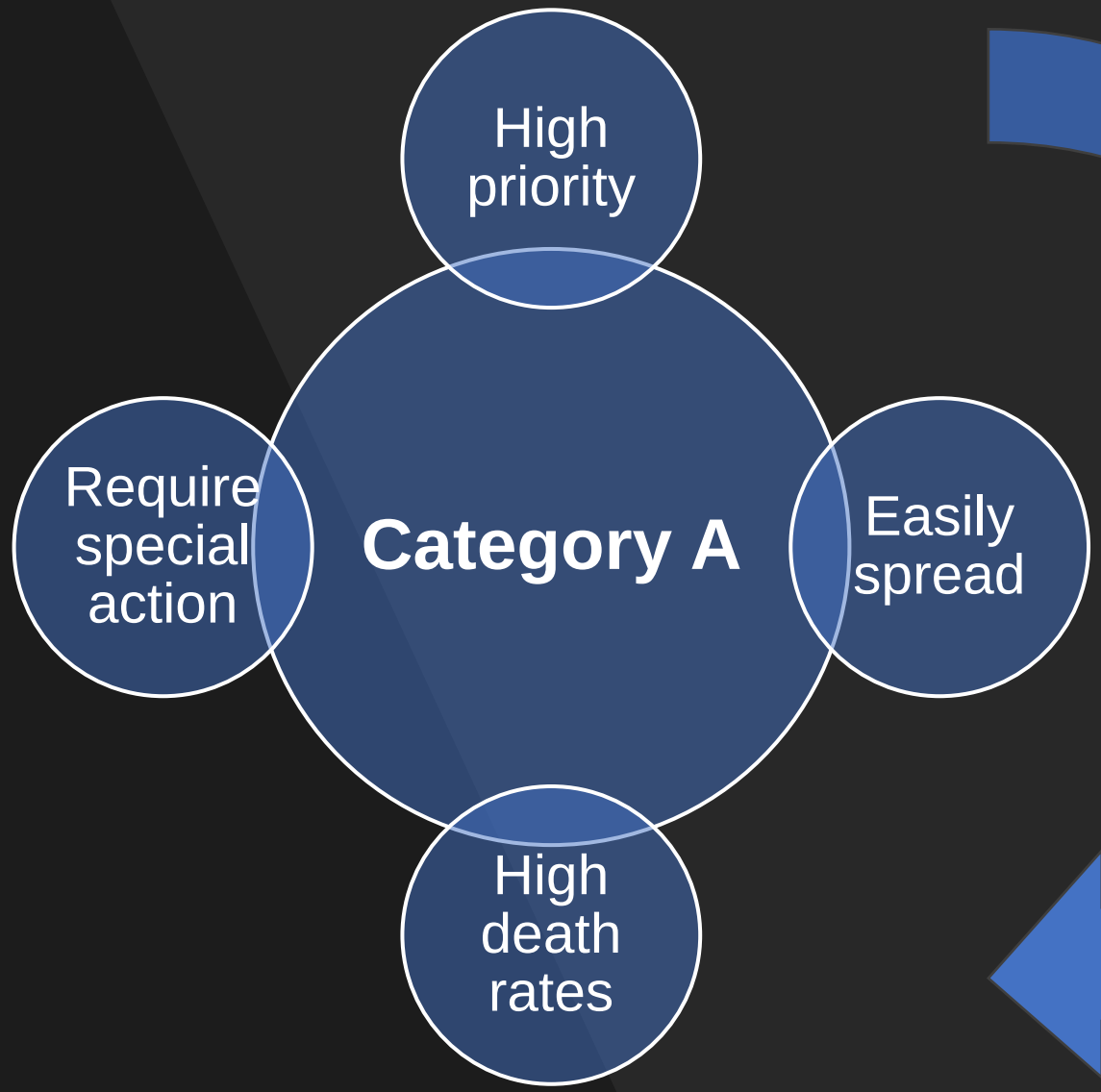
- Some bioterrorism agents, like the smallpox virus, can be spread from person to person and some, like anthrax, cannot.

The smallpox virus





Bioterrorism Agent Categories



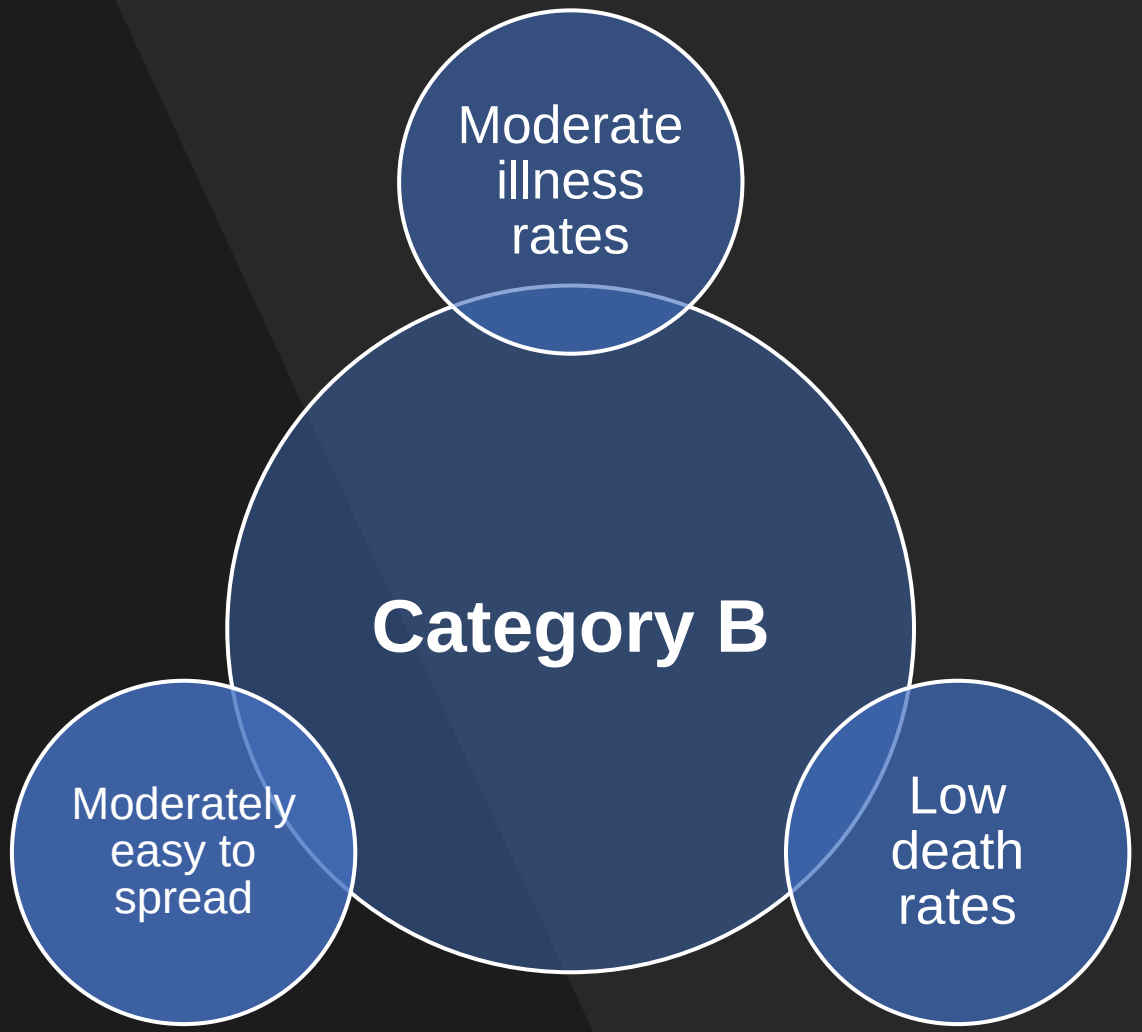
Bacillus anthracis

Variola major/minor

Yersinia pestis

(plague)

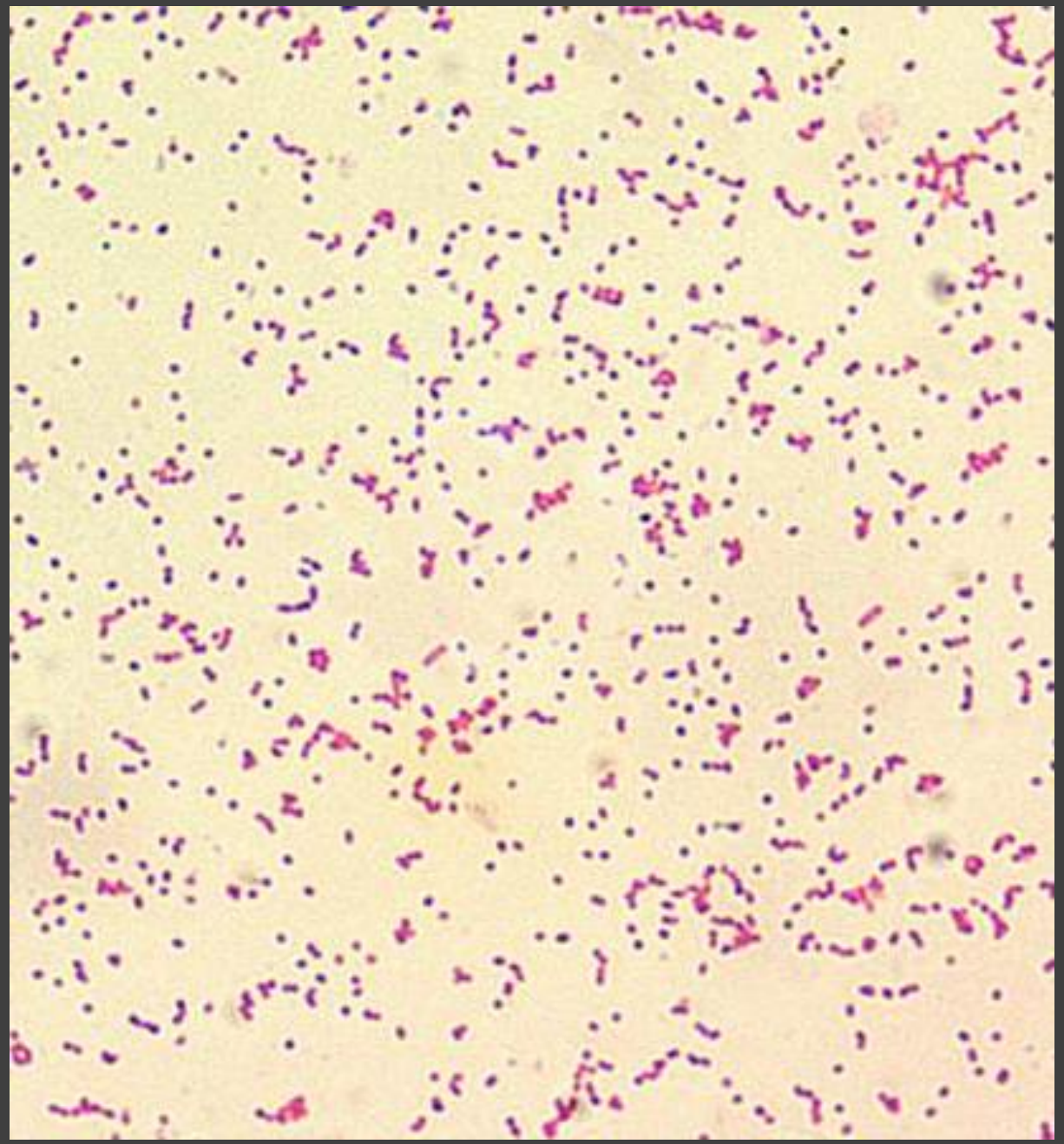
Bioterrorism Agent Categories



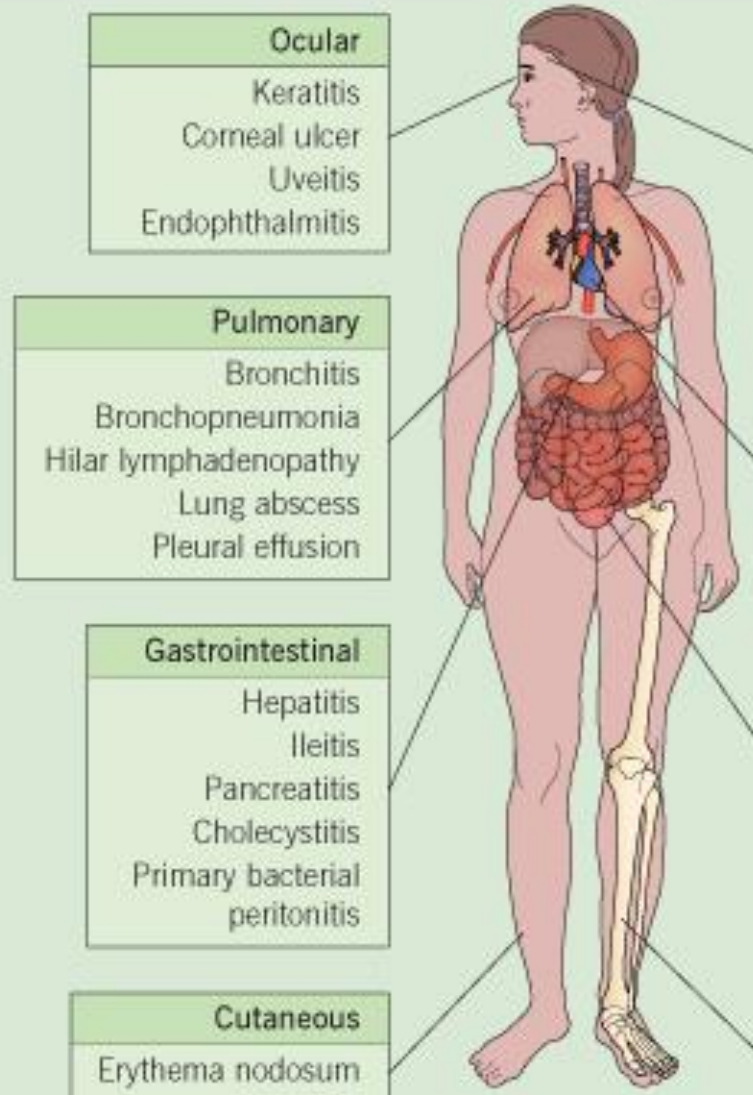
Brucella spp.

Rickettsia prowazekii

Coxiella burnetii



CLINICAL MANIFESTATIONS OF BRUCELLOSIS



Ocular
- Keratitis
- Corneal ulcer
- Uveitis
- Endophthalmitis

Central nervous system
- Meningitis
- Encephalitis
- Psychosis
- Polyradiculitis
- Peripheral neuropathy

Pulmonary
- Bronchitis
- Bronchopneumonia
- Hilar lymphadenopathy
- Lung abscess
- Pleural effusion

Cardiovascular
- Endocarditis
- Myocarditis
- Pericarditis

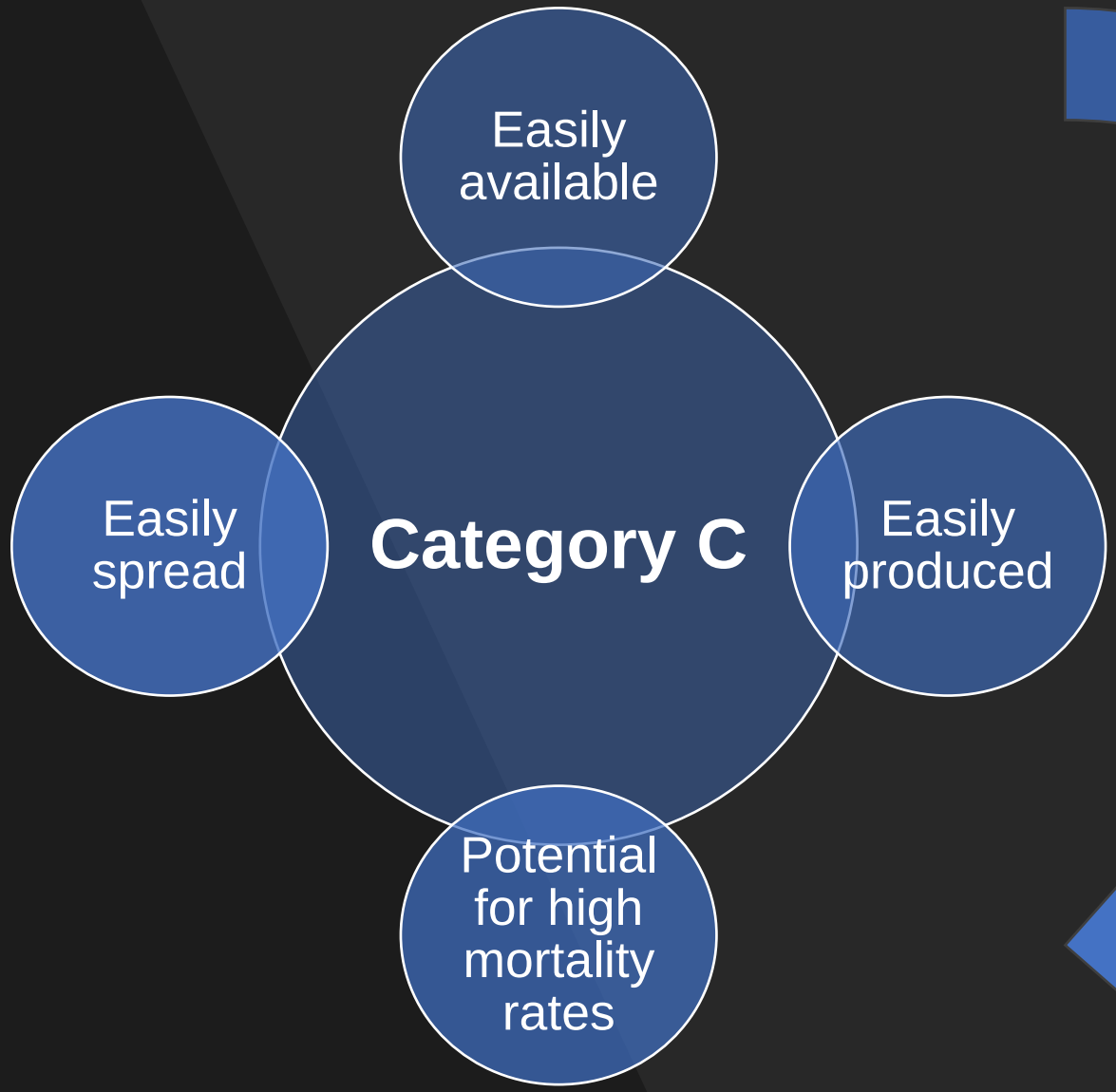
Gastrointestinal
- Hepatitis
- Ileitis
- Pancreatitis
- Cholecystitis
- Primary bacterial peritonitis

Genitourinary
- Epididymo-orchitis
- Pyelonephritis
- Glomenulonephritis
- Interstitial nephritis
- Abortion

Cutaneous
- Erythema nodosum
- Vasculitis

Skeletal
- Arthritis (sacroileitis)
- Osteomyelitis

Bioterrorism Agent Categories



HIV

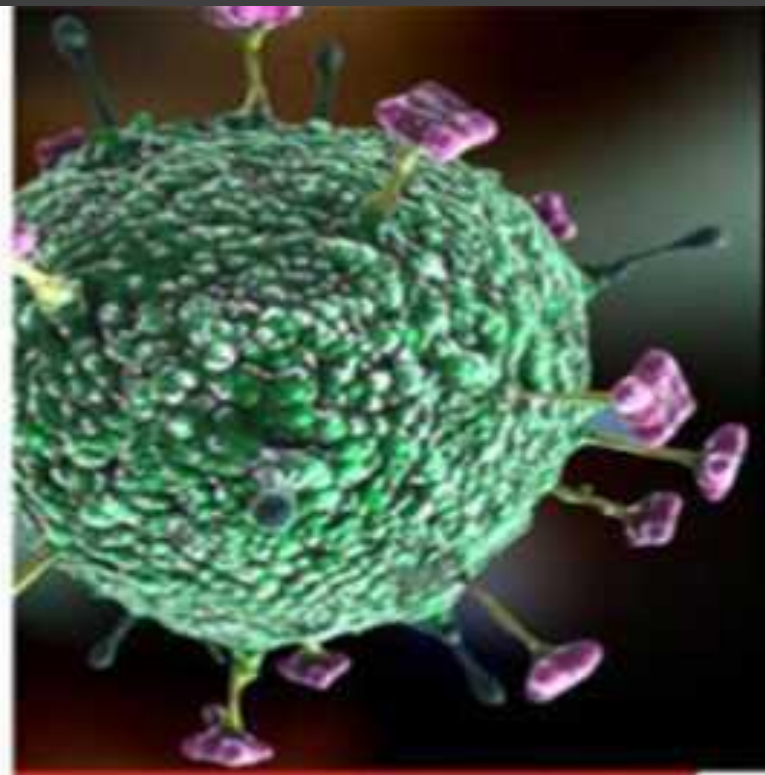
H1N1

Nipah virus

SARS coronavirus

SYMPTOMS

- Fever
- Headache
- Drowsiness
- Disorientation
- Mental confusion
- Coma
- Potentially death



After exposure and incubation period of 5-14 days, illness presents with 3-14 of fever and headache followed by other symptoms

TREATMENT

No specific treatment for Nipah Virus

Primary treatment is intensive supportive care

Source: WHO & Centers for Disease Control and Prevention, US


BACK
IN TIME

- 2600 BC - 2600 BC The Egyptian Imhotep describes the diagnosis and treatment of 200 diseases

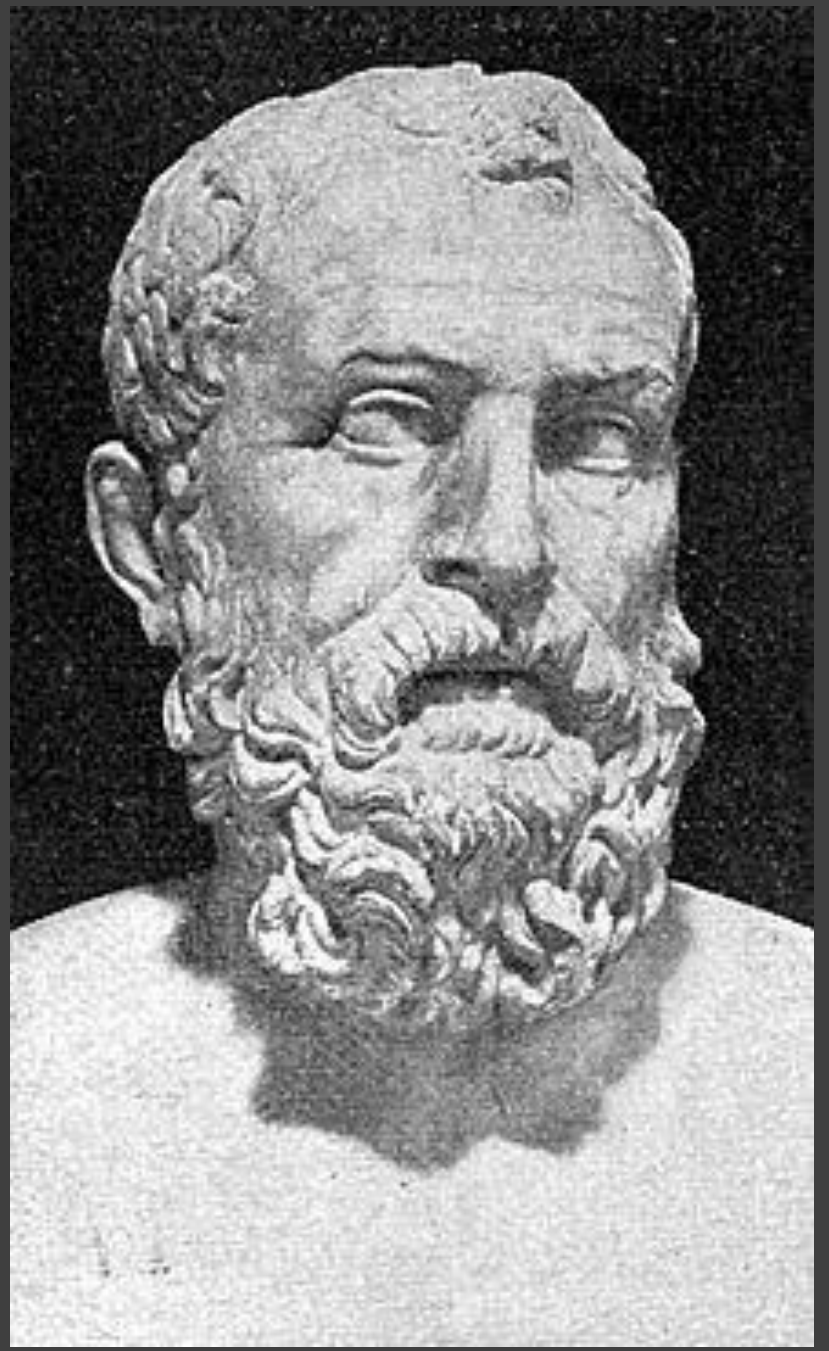


Table 1

Examples of biological and chemical warfare use during the past 2000 years

Time	Event
600 BC	Solon uses the purgative herb hellebore during the siege of Krissa
1155	Emperor Barbarossa poisons water wells with human bodies in Tortona, Italy
1346	Tartar forces catapult bodies of plague victims over the city walls of Caffa, Crimean Peninsula (now Feodosia, Ukraine)
1495	Spanish mix wine with blood of leprosy patients to sell to their French foes in Naples, Italy
1675	German and French forces agree to not use "poisones bullets"
1710	Russian troops catapult human bodies of plague victims into Swedish cities
1763	British distribute blankets from smallpox patients to Native Americans
1797	Napoleon floods the plains around Mantua, Italy, to enhance the spread of malaria
1863	Confederates sell clothing from yellow fever and smallpox patients to Union troops during the US Civil War
World War I	German and French agents use glanders and anthrax
World War II	Japan uses plague, anthrax, and other diseases; several other countries experiment with and develop biological weapons programs
1980–1988	Iraq uses mustard gas, sarin, and tabun against Iran and ethnic groups inside Iraq during the Persian Gulf War
1995	Aum Shinrikyo uses sarin gas in the Tokyo subway system

Conclusion

Bioterrorism remains a legitimate threat both from domestic and international terrorist groups

The use of biological agents dates from ancient times

Prevention can be made through education and raising awareness, also by initiating biosurveillance programs

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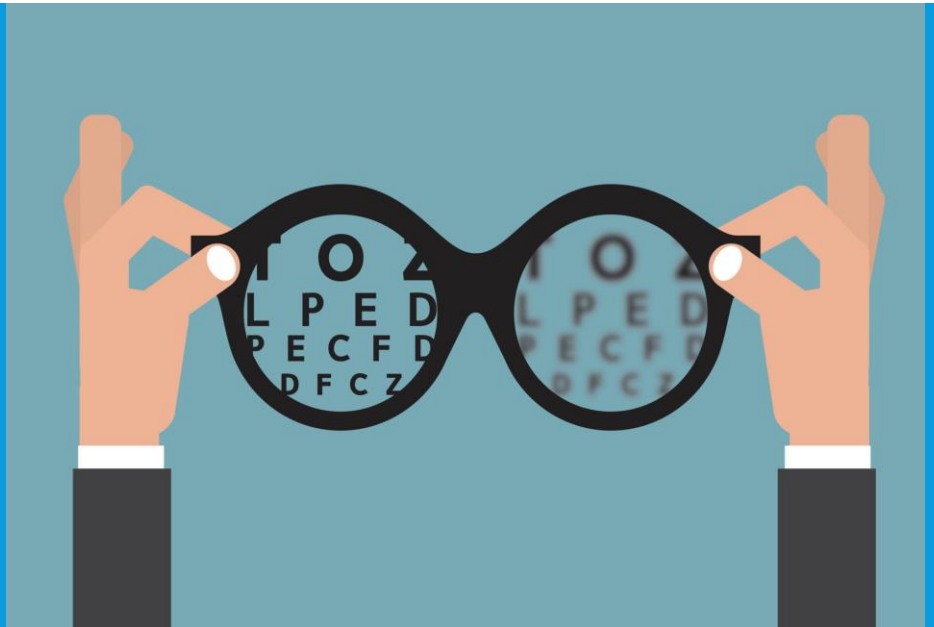
CATARACT



Ana-Maria Ionela Boțoacă

Andra Ana-Maria Bradea

Topics

1) Introduction
2) Signs and symptoms
3) Classification
4) Causes
5) Prevention
6) Treatment
7) Postoperative care
8) Complications
9) Epidemiology

Introduction

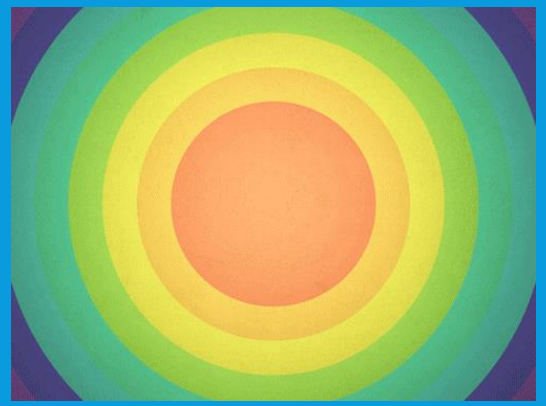
A cataract is a clouding of the lens in the eye which leads to a decrease in vision. Cataracts often develop slowly and can affect one or both eyes. Poor vision caused by cataracts may also result in an increased risk of falling and depression. Cataracts cause half of all cases of blindness and 33% of visual impairment worldwide.

Signs and symptoms

Blurry vision

Double vision

Trouble with bright lights

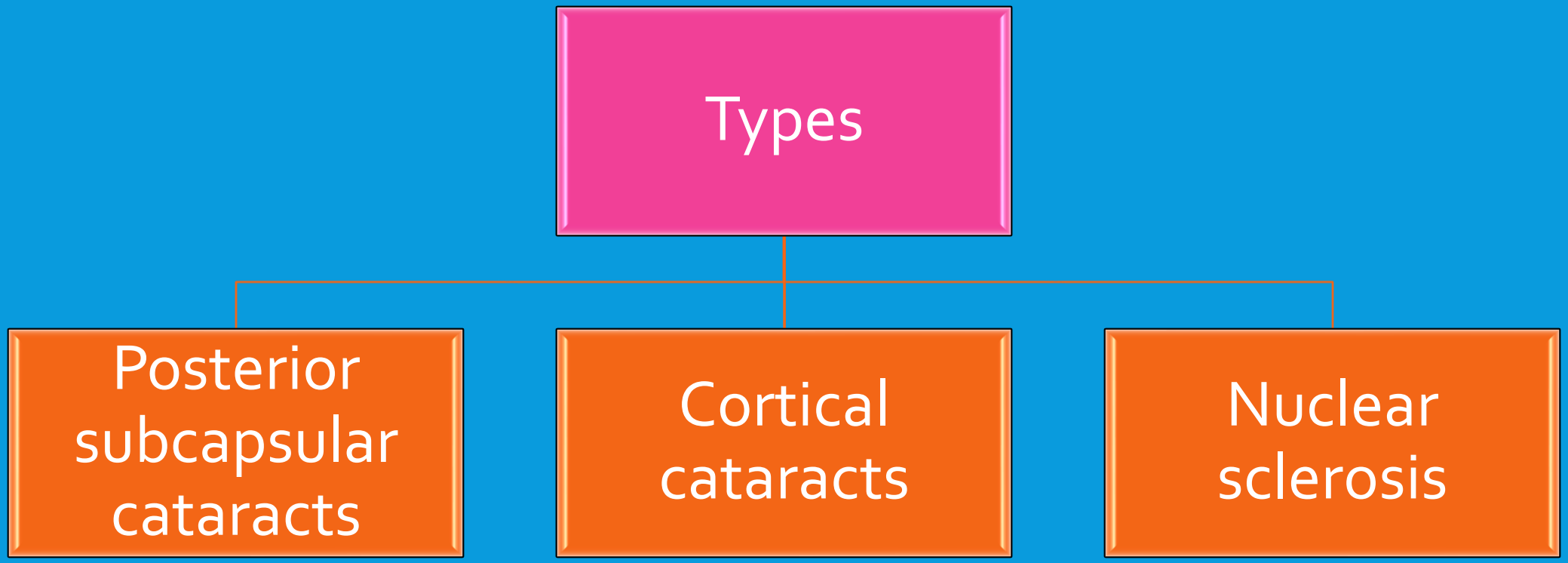


Faded colors

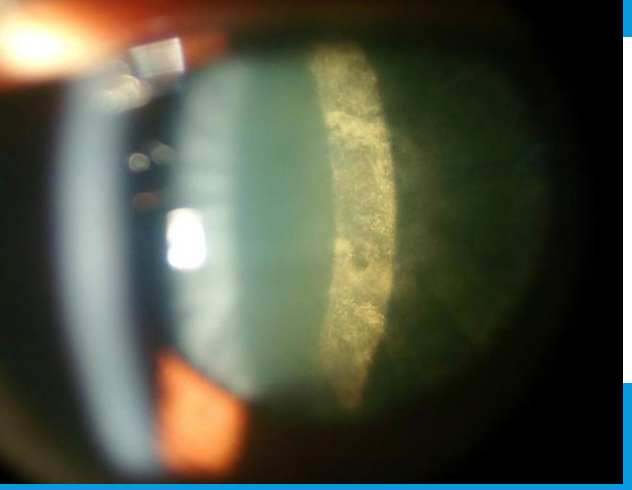
Trouble seeing at night

Halos around light

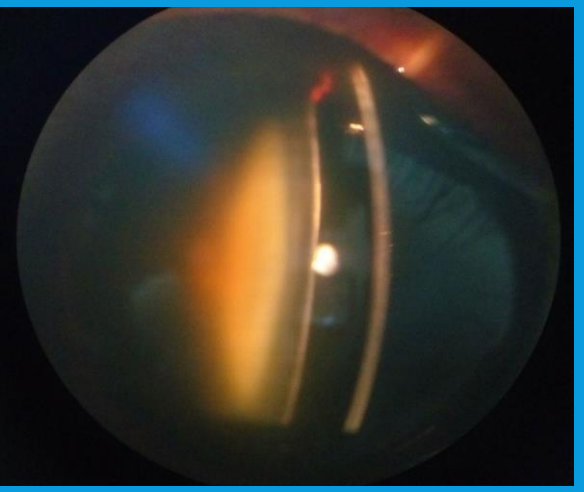
Classification



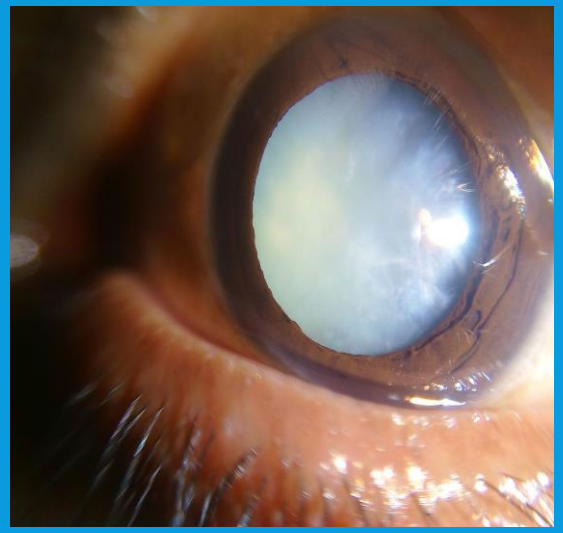
Different types of cataract



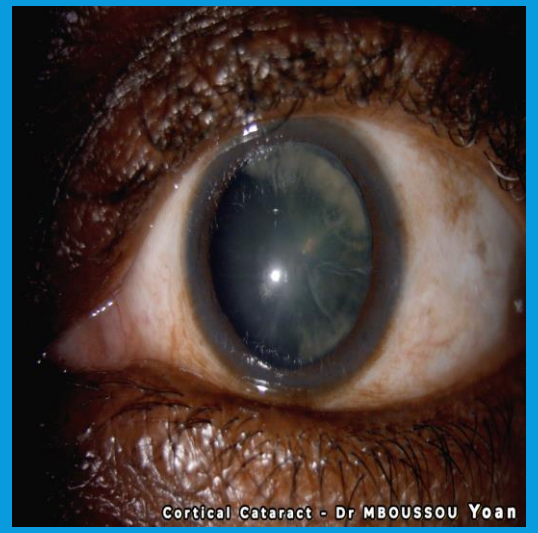
Posterior subcapsular cataract of a 16-year-old girl



Nuclear sclerosis cataract of a 70-year-old male

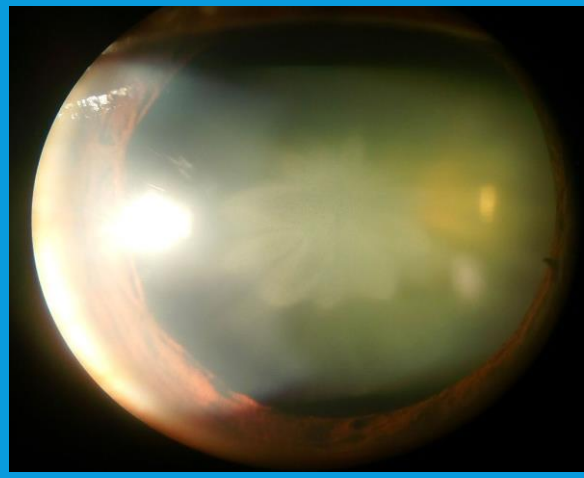


Dense white mature cataract of a 60-year-old male



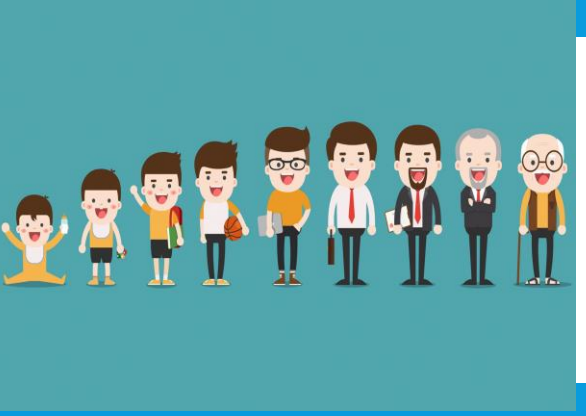
Cortical cataract of a melanoderm male

Bilateral cataracts in an infant due to congenital rubella syndrome

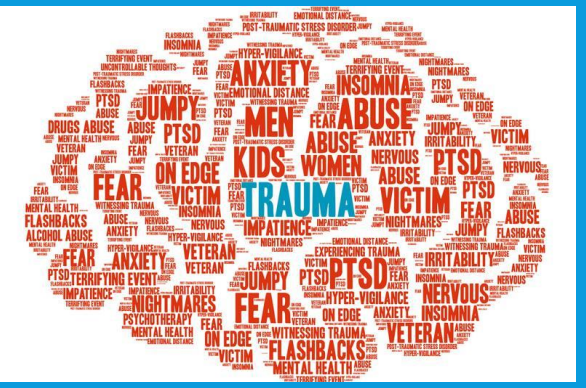


Post traumatic rosette cataract of a 60-year-old male

Causes

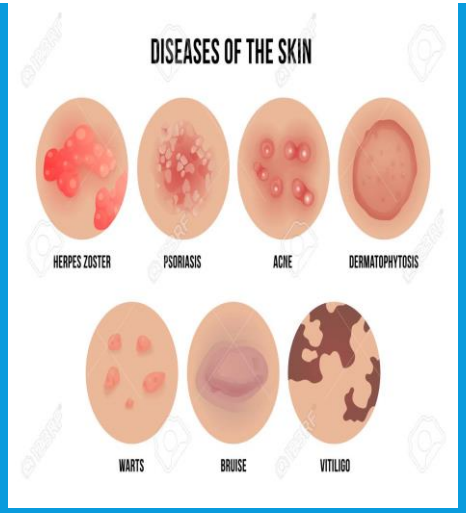


Age



Trauma

Genetics



Skin diseases

Inadequate vitamin C

Medications

Radiations

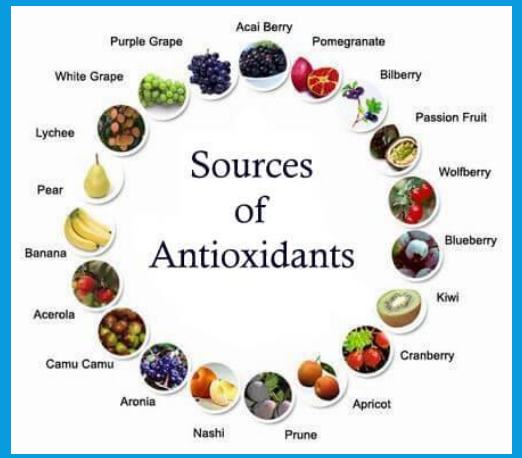
Smoking and alcohol

Post-operative

Prevention

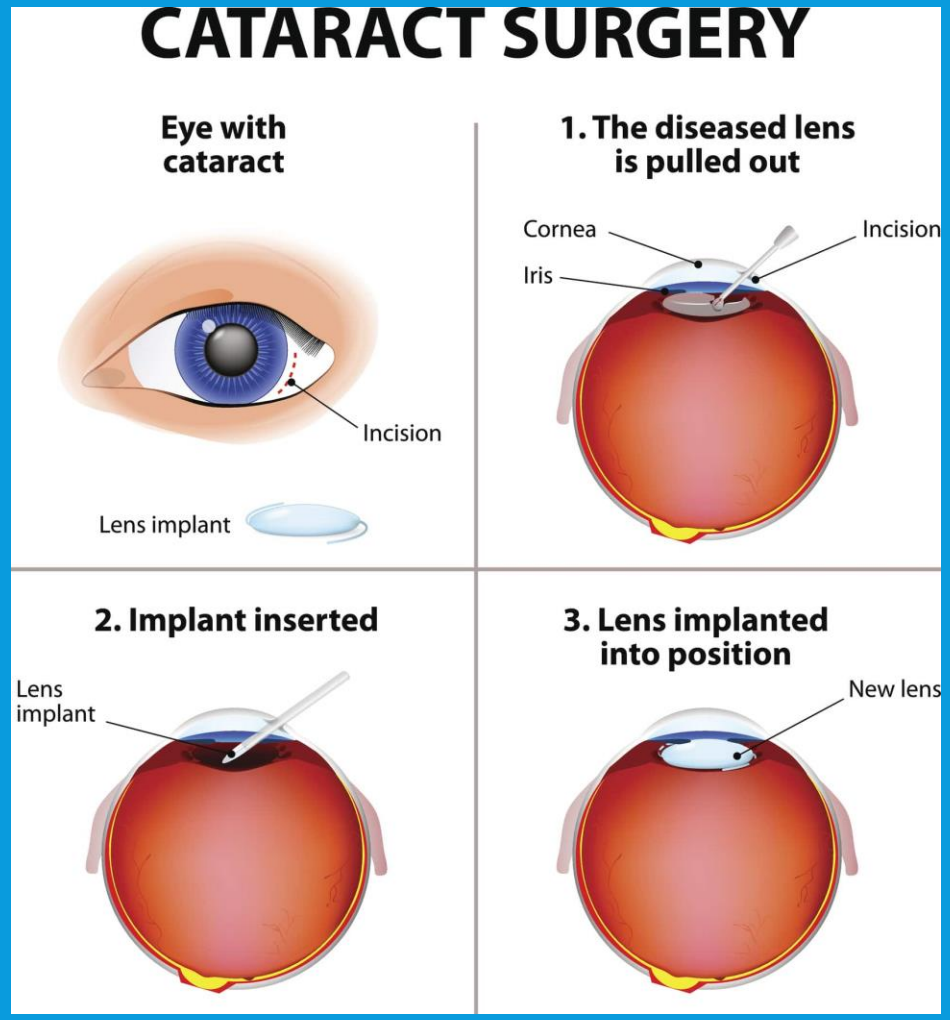
Risk factors such as UVB exposure and smoking can be addressed. Although no means of preventing cataracts has been scientifically proven, wearing sunglasses that counteract ultraviolet light may slow their development.

While adequate intake of antioxidants (such as vitamins A, C, and E) has been thought to protect against the risk of cataracts, clinical trials have shown no benefit from supplements; though evidence is mixed, but weakly positive, for a potential protective effect of the nutrients lutein and zeaxanthin. Statin use is somewhat associated with a lower risk of nuclear sclerotic cataracts.



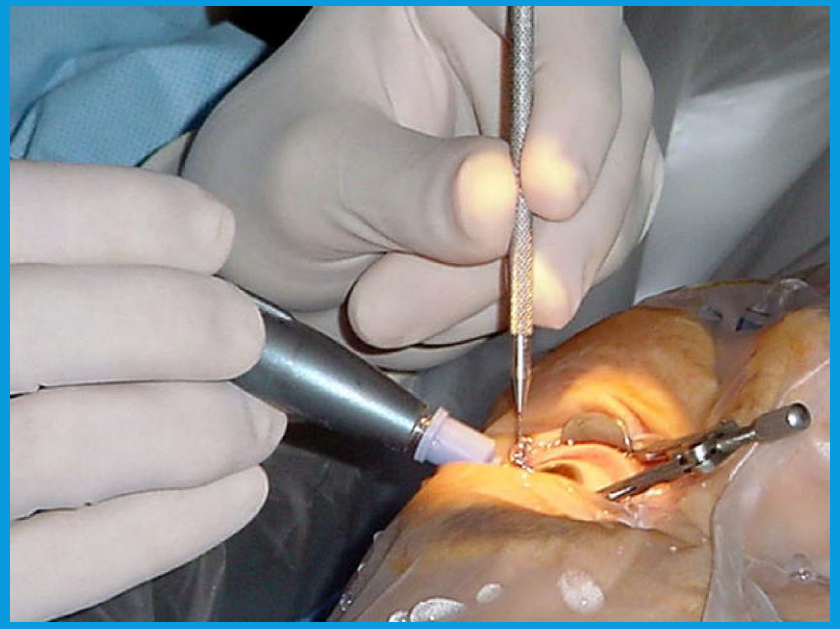
Treatment

- Cataract surgery



Postoperative care

The postoperative recovery period (after removing the cataract) is usually short. The patient is usually ambulatory on the day of surgery, but is advised to move cautiously and avoid straining or heavy lifting for about a month. The eye is usually patched on the day of surgery and use of an eye shield at night is often suggested for several days after the surgery.



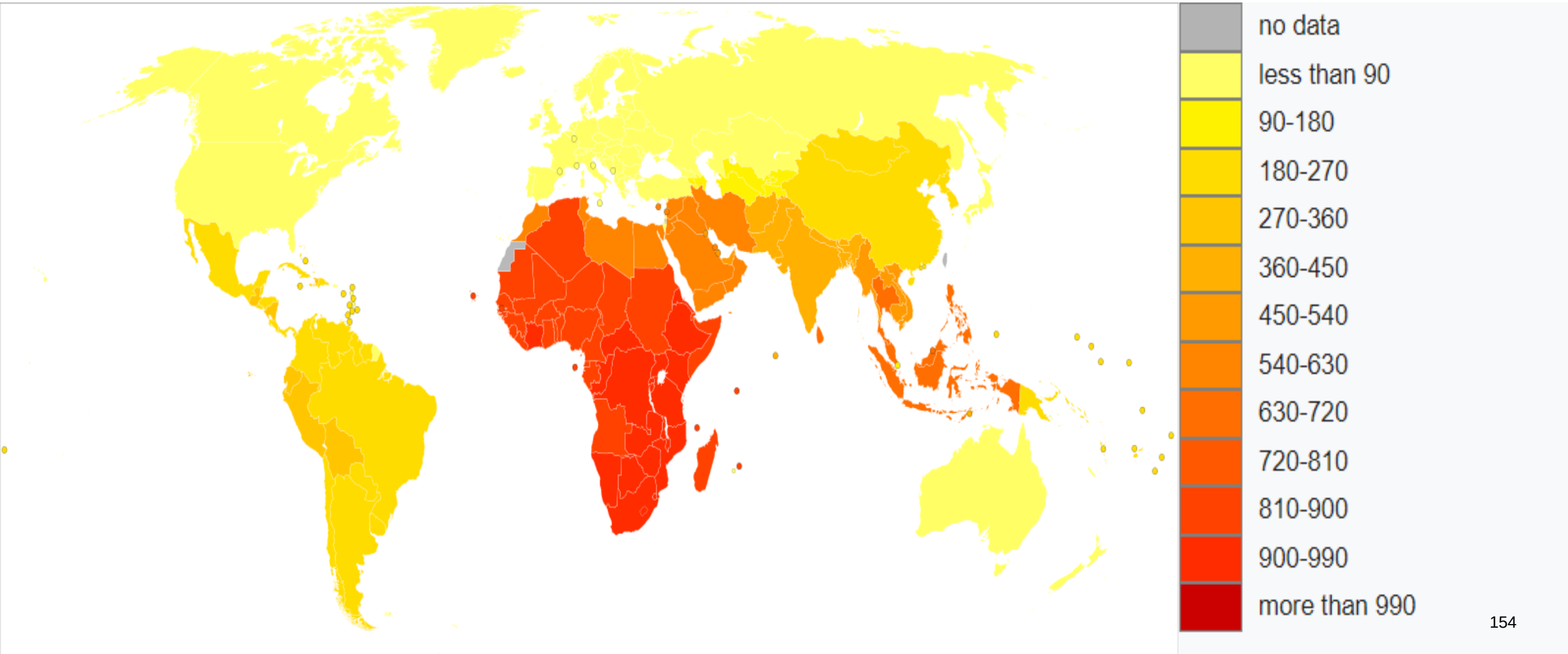
Complications

Serious complications of cataract surgery include retinal detachment and endophthalmitis. In both cases, patients notice a sudden decrease in vision. In endophthalmitis, patients often describe pain. Retinal detachment frequently presents with unilateral visual field defects, blurring of vision, flashes of light, or floating spots.

Corneal oedema and cystoid macular oedema are less serious but more common, and occur because of persistent swelling at the front of the eye in corneal oedema or back of the eye in cystoid macular oedema.

In both cases, patients may notice blurred, foggy vision.

Epidemiology



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THANK YOU FOR YOUR ATTENTION !

Social Experiments and the Human Mind

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TEODORA BULICA

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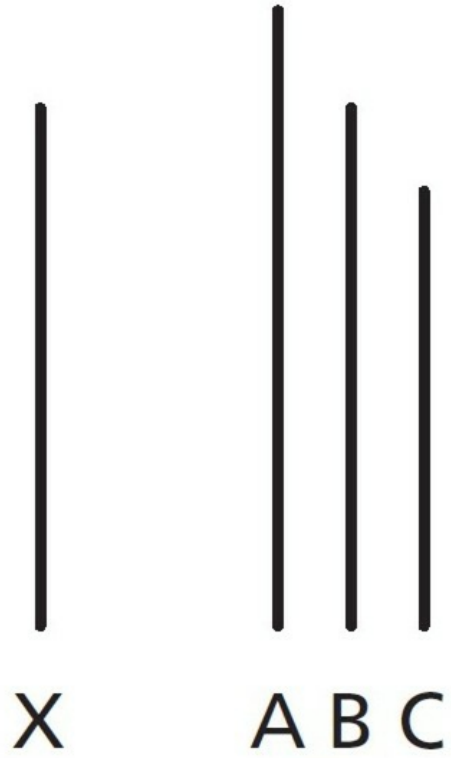
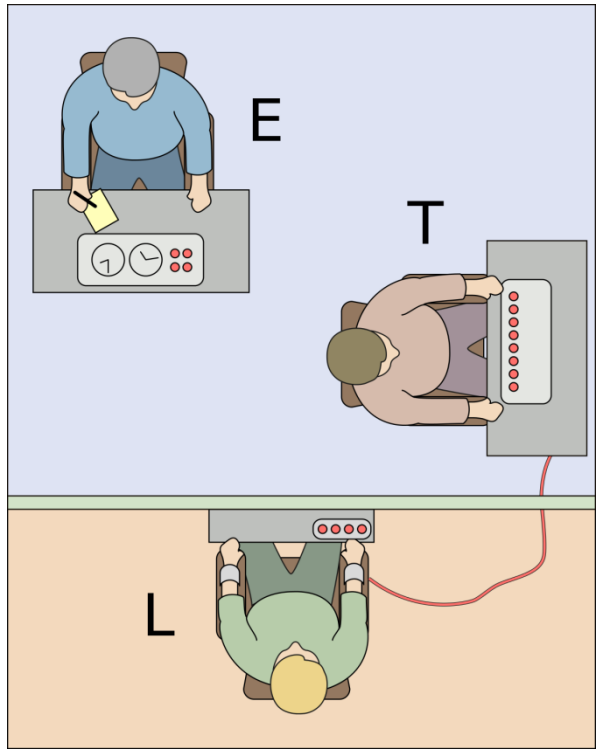
The Asch Conformity Test

- Each student viewed a card with a line on it, followed by another with three lines labeled *A*, *B*, and *C*.
- Subjects completed 18 trials.
- On the first two trials, both the subject and the actors gave the obvious, correct answer.
- On the third trial, the actors would all give the same wrong answer.
- Post-study interviews showed that most participants chose the wrong answer just to "go along with everybody else".



The Milgram Experiment

- The participant was paired with another person and they drew lots to find out who would be the 'learner' and who would be the 'teacher.'
- The teacher is told to administer an electric shock every time the learner makes a mistake, increasing the level of shock each time.
- 65% of participants continued to the highest level of 450 volts. All the participants continued to 300 volts.
- It was concluded that people tend to obey orders from other people if they recognize their authority as morally right and/or legally based.



The Stanford Experiment

- A social psychology experiment that attempted to investigate the psychological effects of perceived power.
- The volunteers were randomly assigned to be either "guards" or "prisoners" in a mock prison.
- Students quickly embraced their assigned roles, with some guards enforcing authoritarian measures and ultimately subjecting some prisoners to psychological torture.

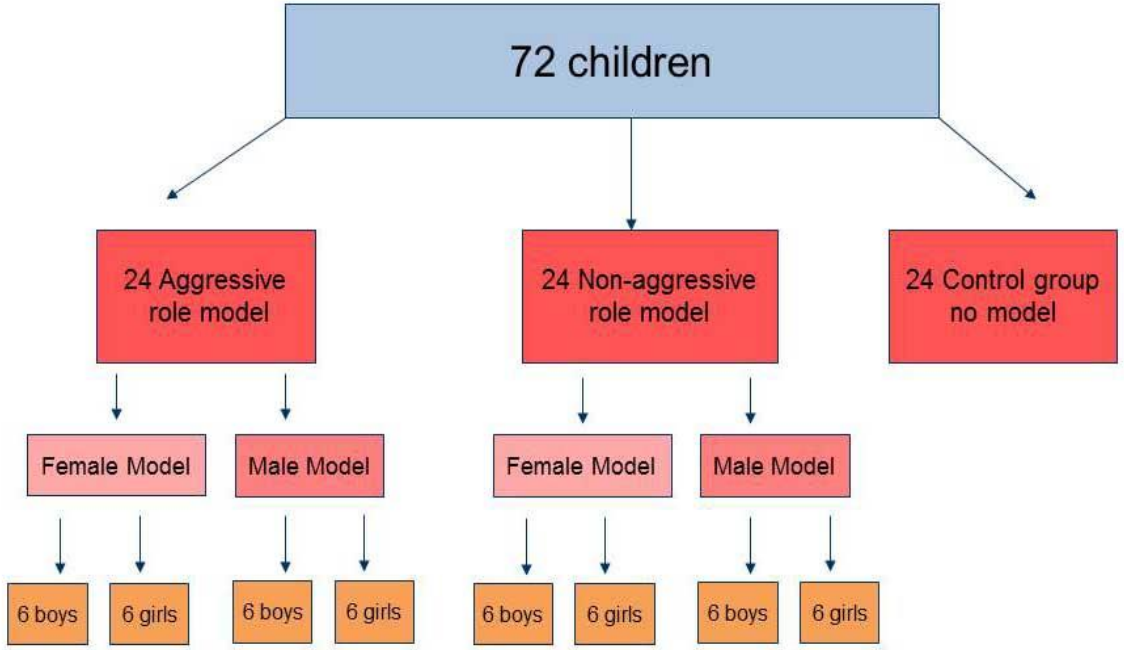
The Bobo Doll Experiment

- The first measure: physical aggression

  (punching, kicking, sitting on the Bobo doll etc).

- The second measure: verbal aggression.

- The children exposed to the aggressive model were more likely to pursue physically aggressive behaviour than those who were not exposed to the aggressive model.



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Thank you!

Leukemia

Ionuț-Radu Bulzan

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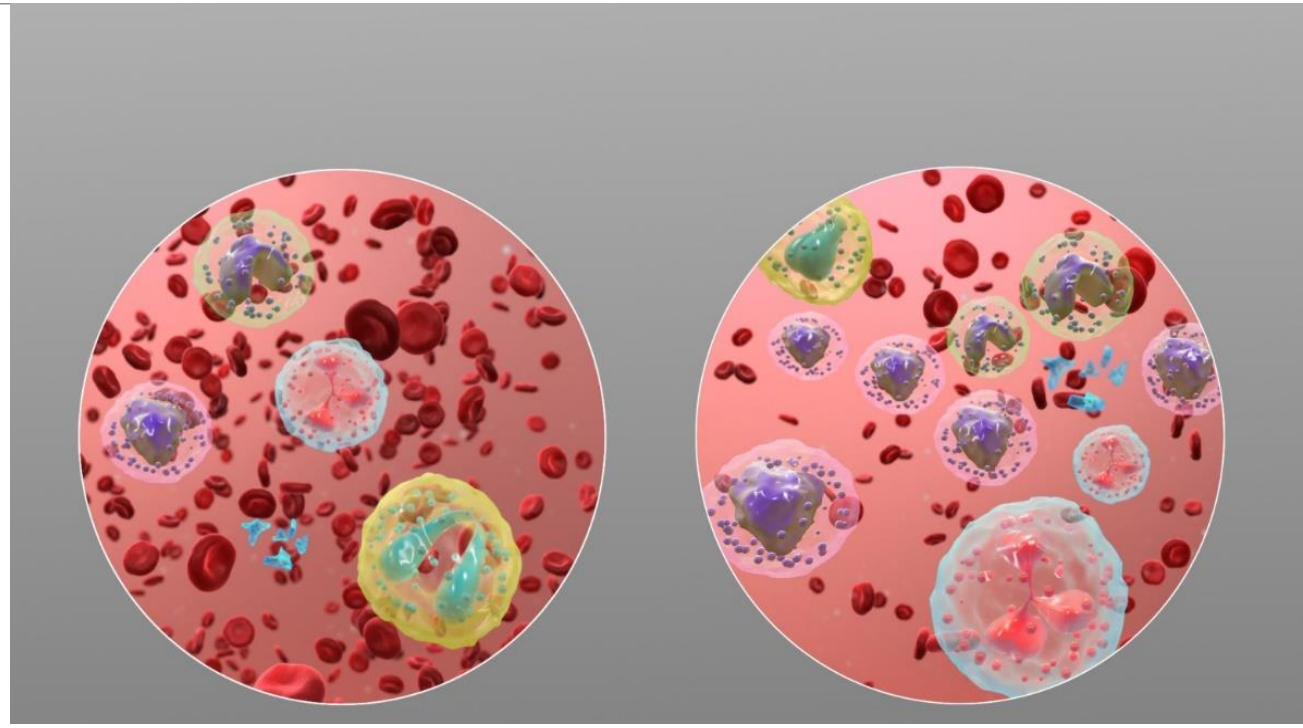
What is Leukemia?

Leukemia, also spelled **leukaemia**, is a group of blood cancers that usually begin in the bone marrow and result in high numbers of abnormal blood cells.



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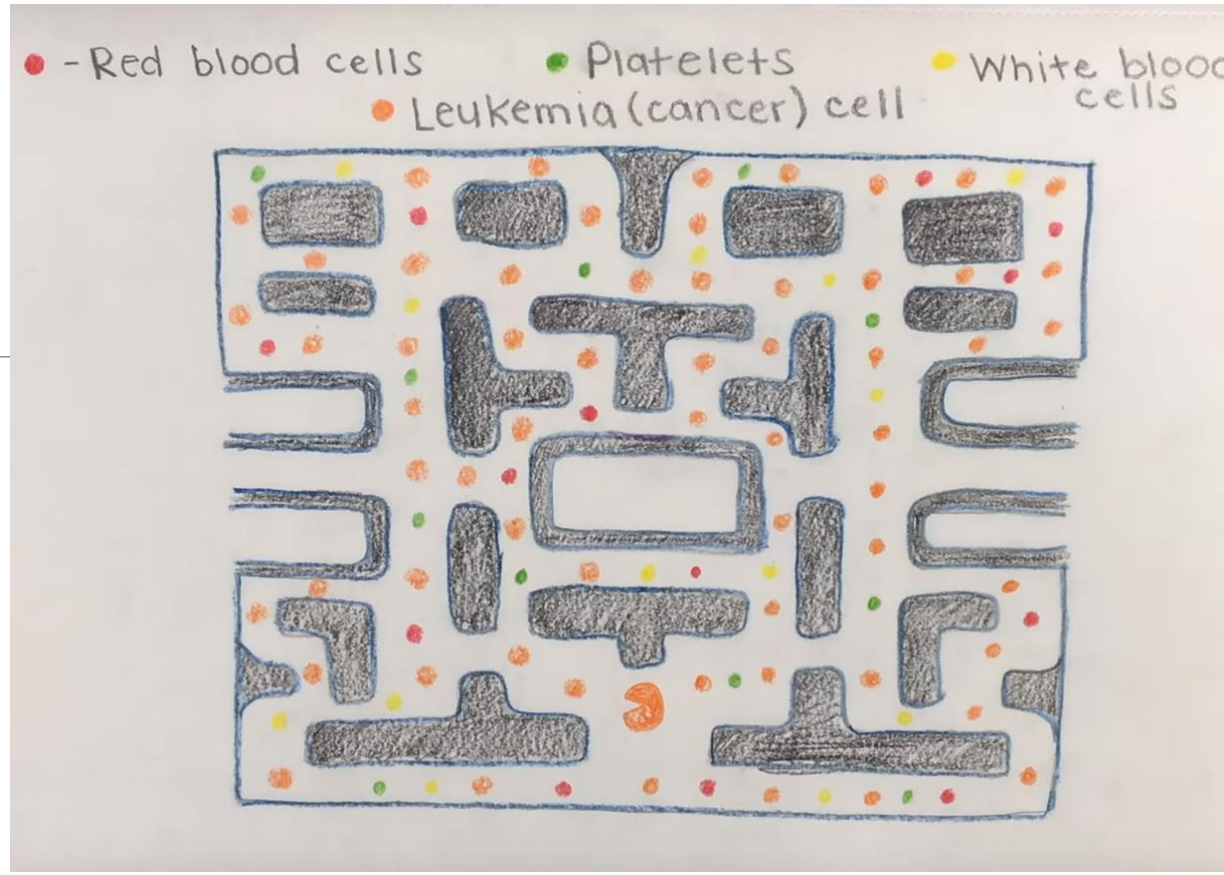
Basics of Leukemia



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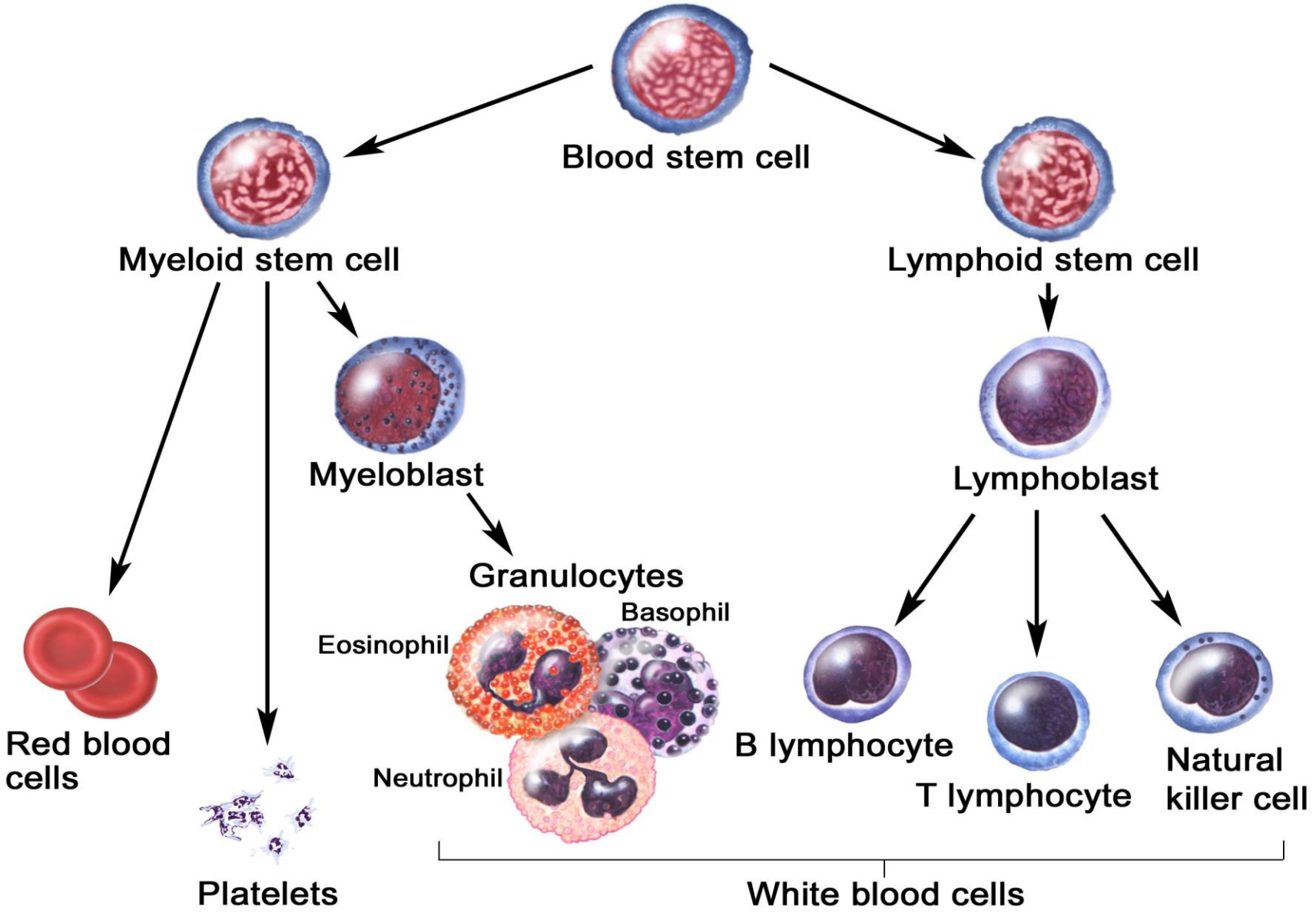
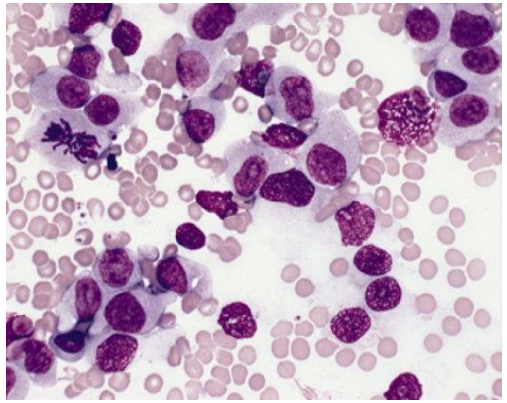


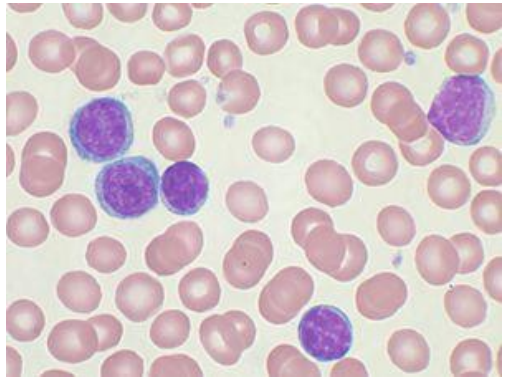
Classification of Leukemia

The speed of progression:

Acute leukemia



Chronic leukemia



The type of white blood cell affected:

Lymphocytic leukemia

Myelogenous leukemia

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Major types of Leukemia

Acute lymphocytic leukemia (ALL)

Acute myelogenous leukemia (AML)

Chronic lymphocytic leukemia (CLL).

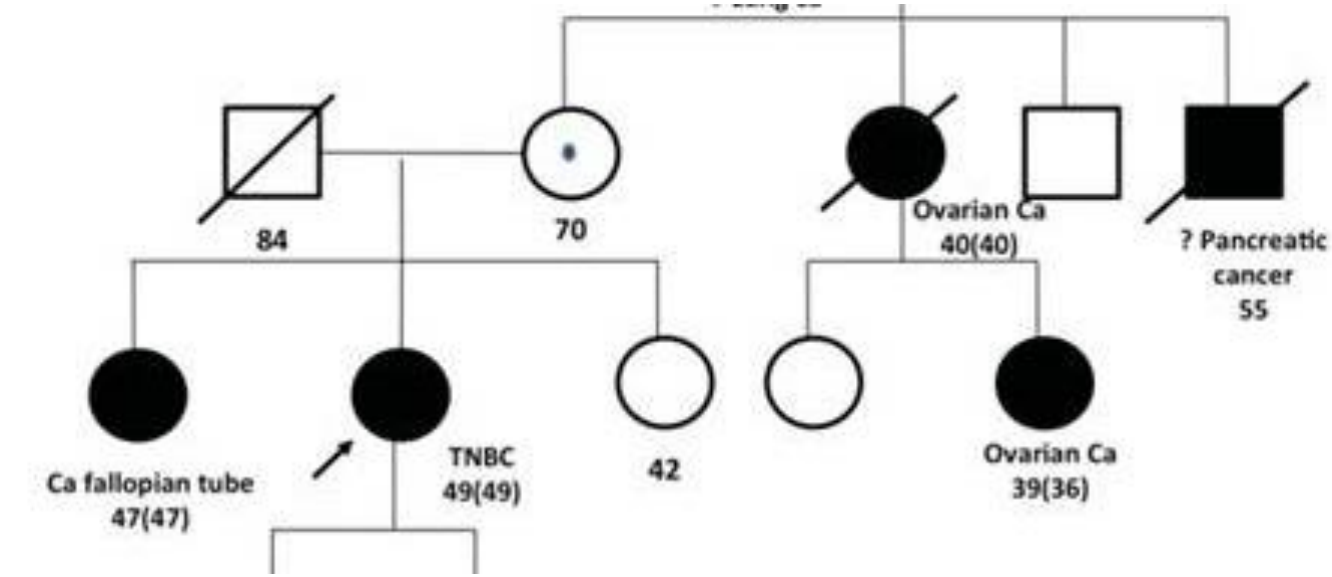
Chronic myelogenous leukemia (CML).

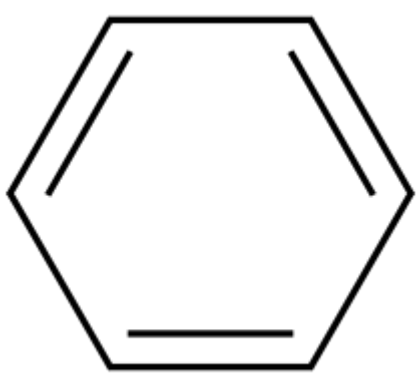
ALL is the most common type of leukemia in young children

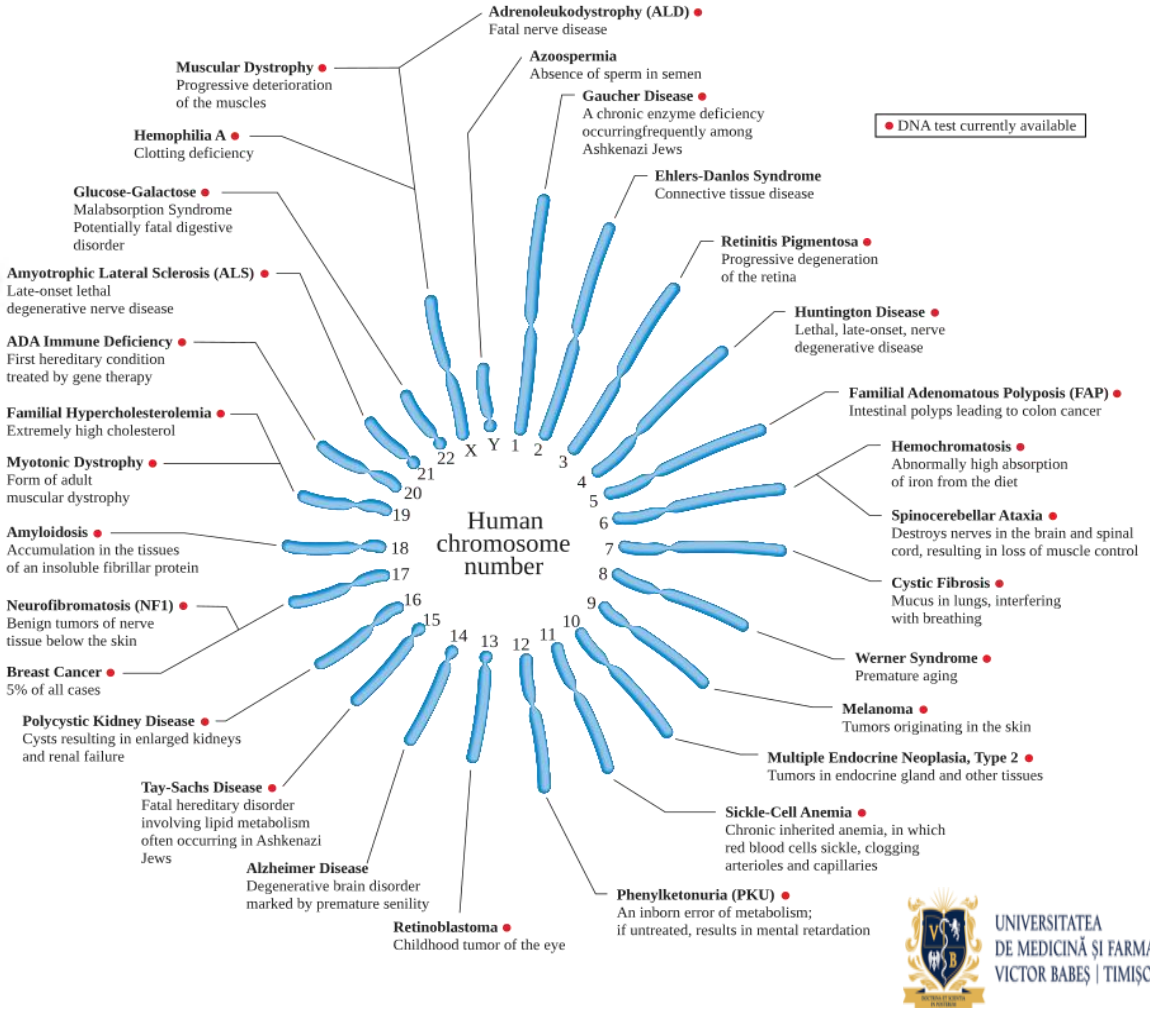
AML is common in children and adults

CLL is the most common chronic adult leukemia – one may feel well for years without needing treatment

CML affects adults. Few or no symptoms for months or years until the leukemia cells start to grow rapidly







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Risk Factors

Previous cancer treatment

Exposure to certain chemicals

Genetic disorders

Smoking

Family history of leukemia

Treatment

Common treatments

Myelogenous & **lymphocytic** leukemia

- Targeted therapy
- Chemotherapy
- Radiation therapy
- Stem cell transplant

Specific treatments

Myelogenous leukemia

- Biological therapy
- Donor lymphocyte infusion

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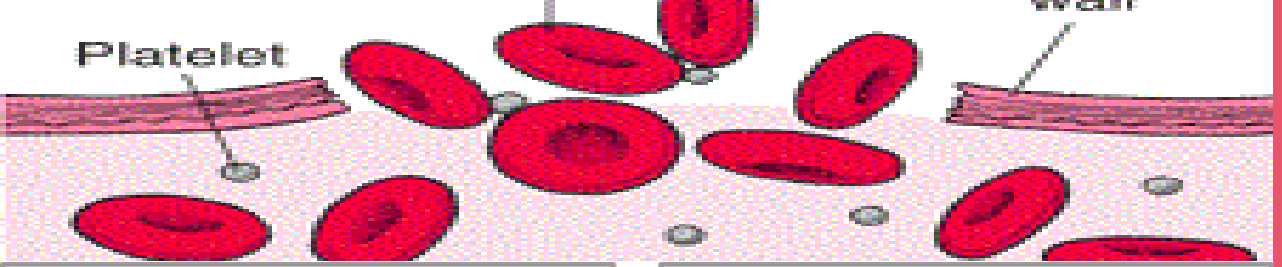

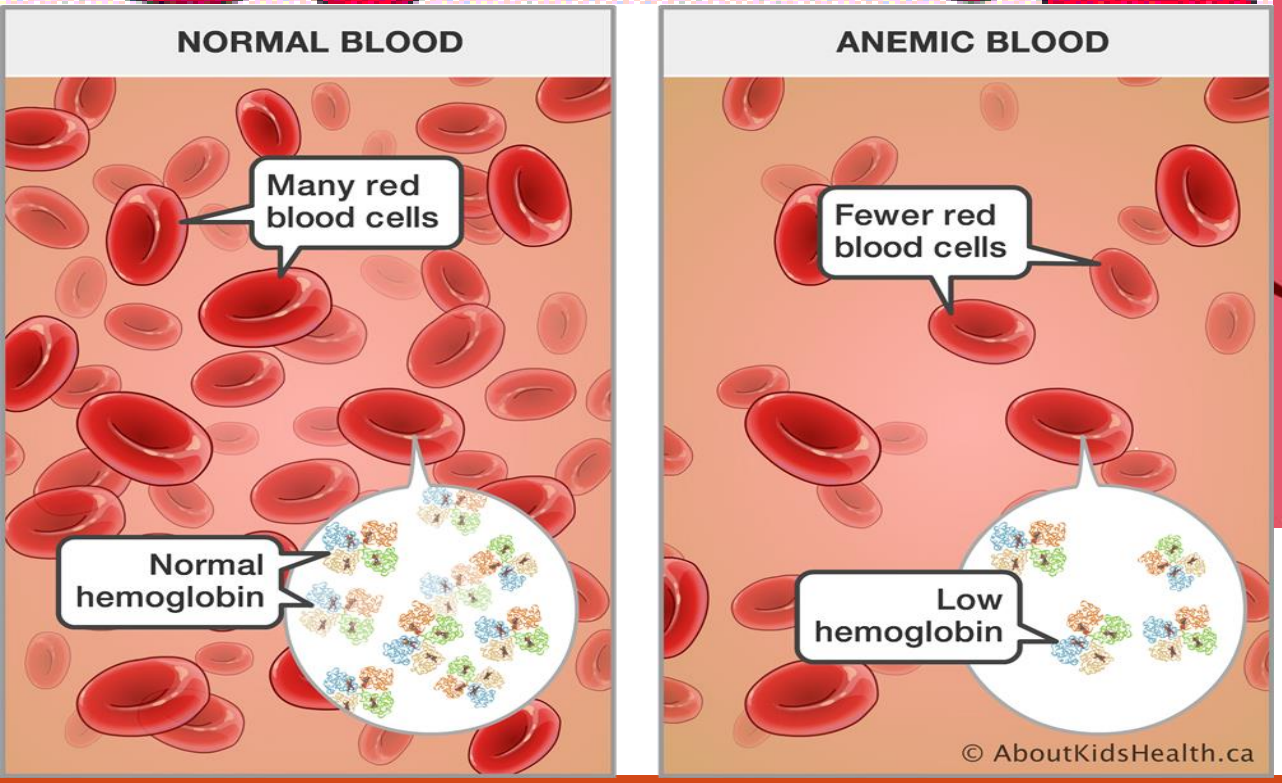

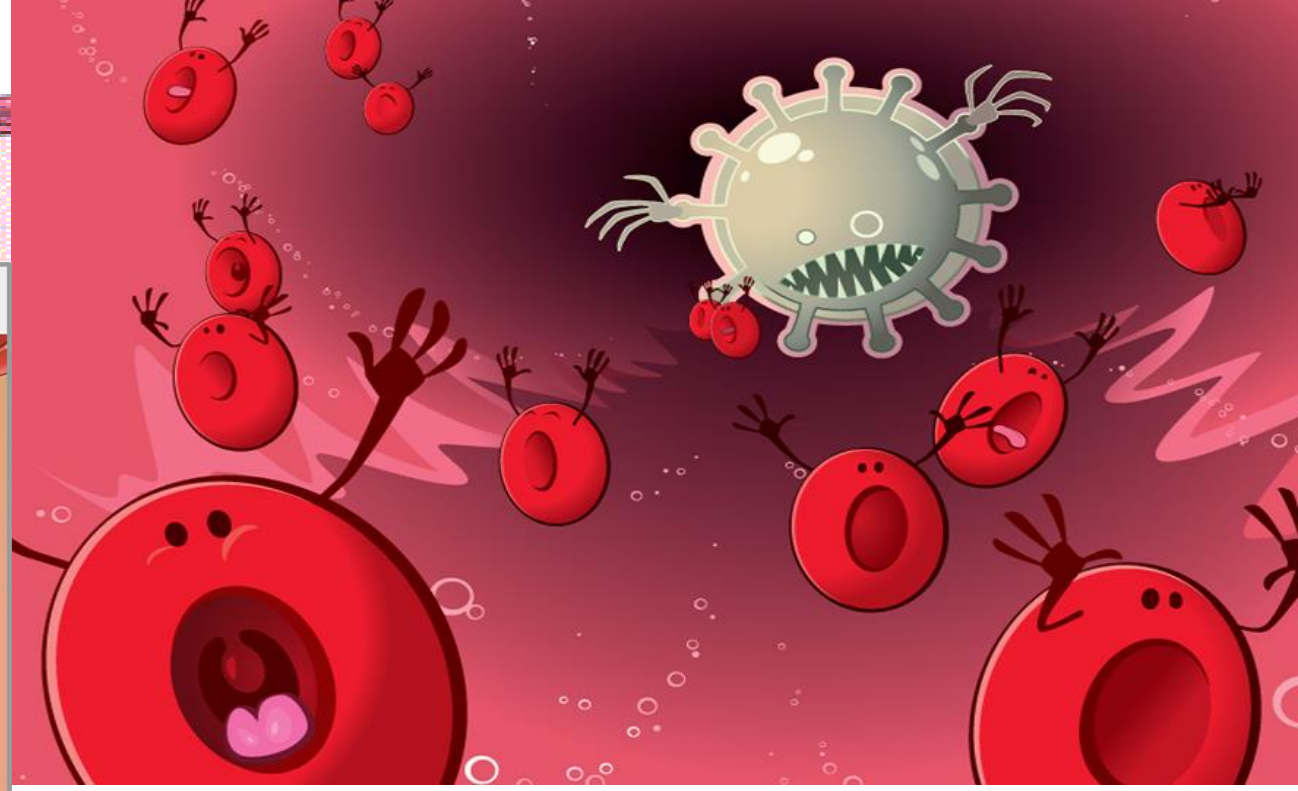

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Symptoms

Poor blood clotting **Frequent infections** **Anemia**

There may be **nausea**, **fever**, **chills**, **night sweats**, **flu-like symptoms**, **weight loss**, **bone pain**, and **tiredness**

Survival rate

- The 5-year survival rate for all subtypes of leukemia is 61.4 percent
- Leukemia is most common in people aged over 55, with the median age of diagnosis being 66
- It is also one of the most common cancers for people under age 20 (ALL)

Age group	% of deaths
Under 20	2.2
20 – 34	2.6
35 – 44	2.4
45 – 54	5.5
55 – 64	12.6
65 – 74	23.1
75 – 84	30.0
> 84	21.6

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In vitro fertilisation

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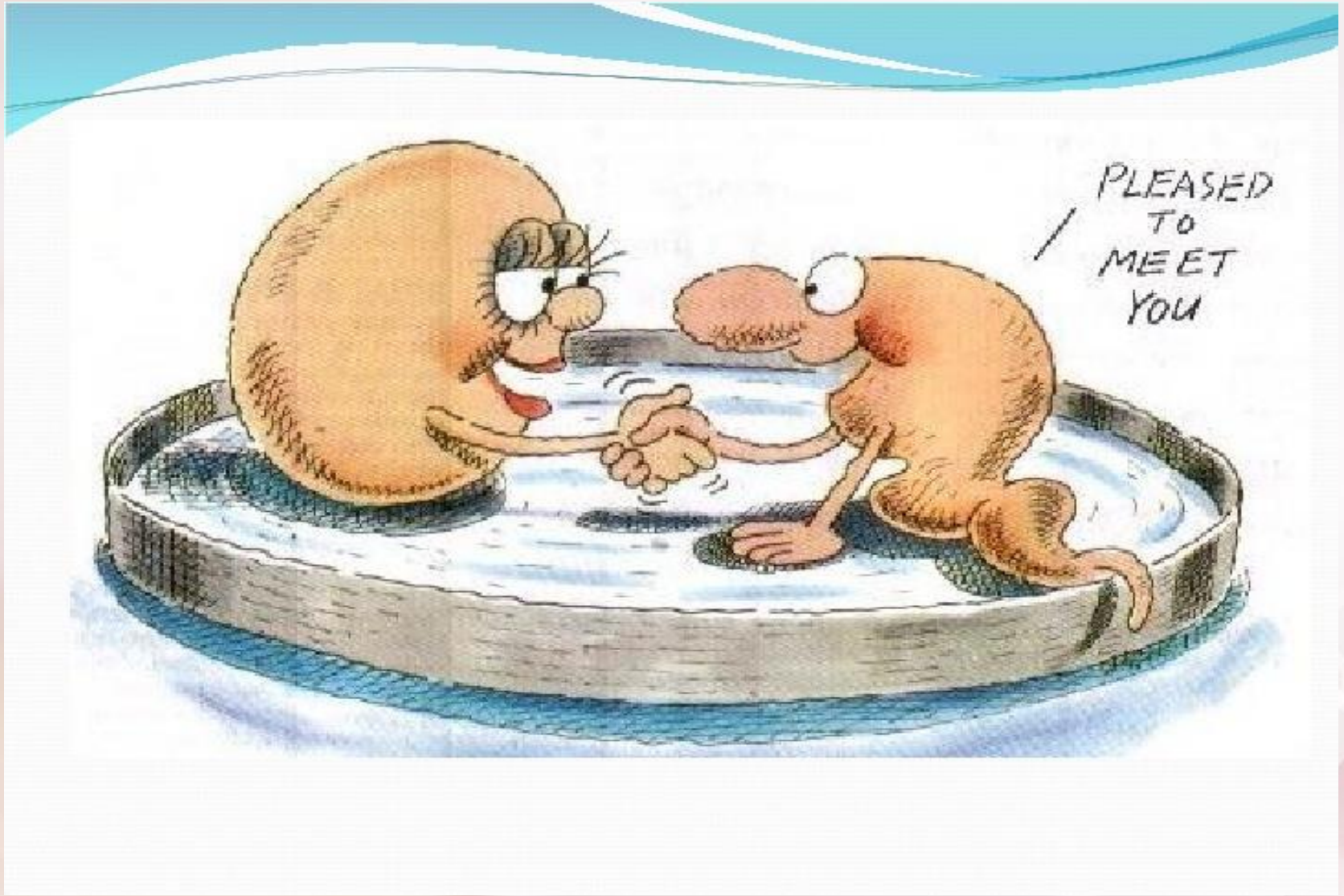
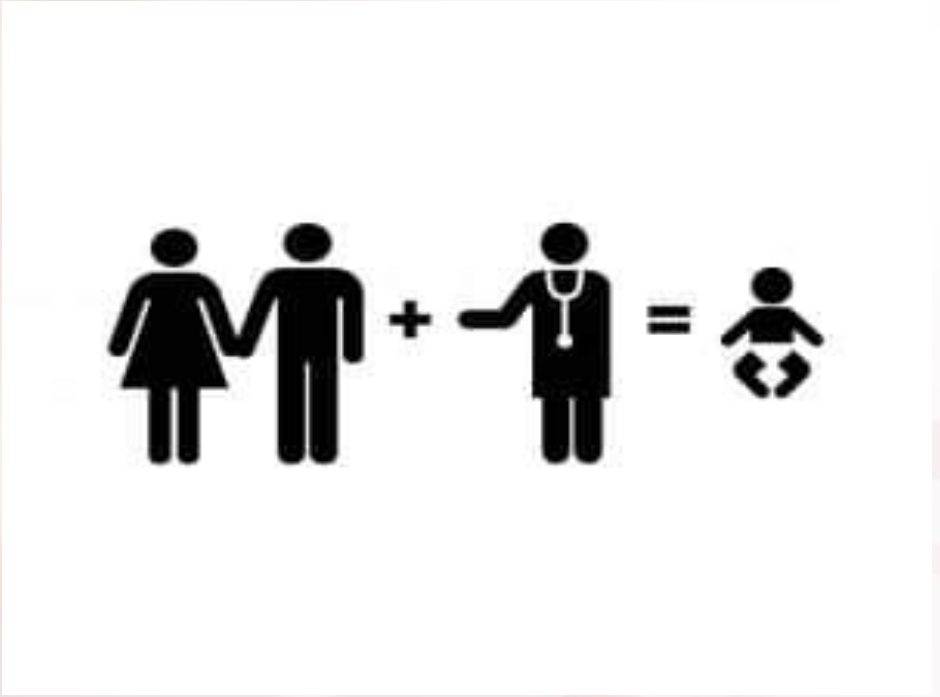
Definition

In vitro fertilization is an assisted reproductive technology (ART) commonly referred to as IVF.

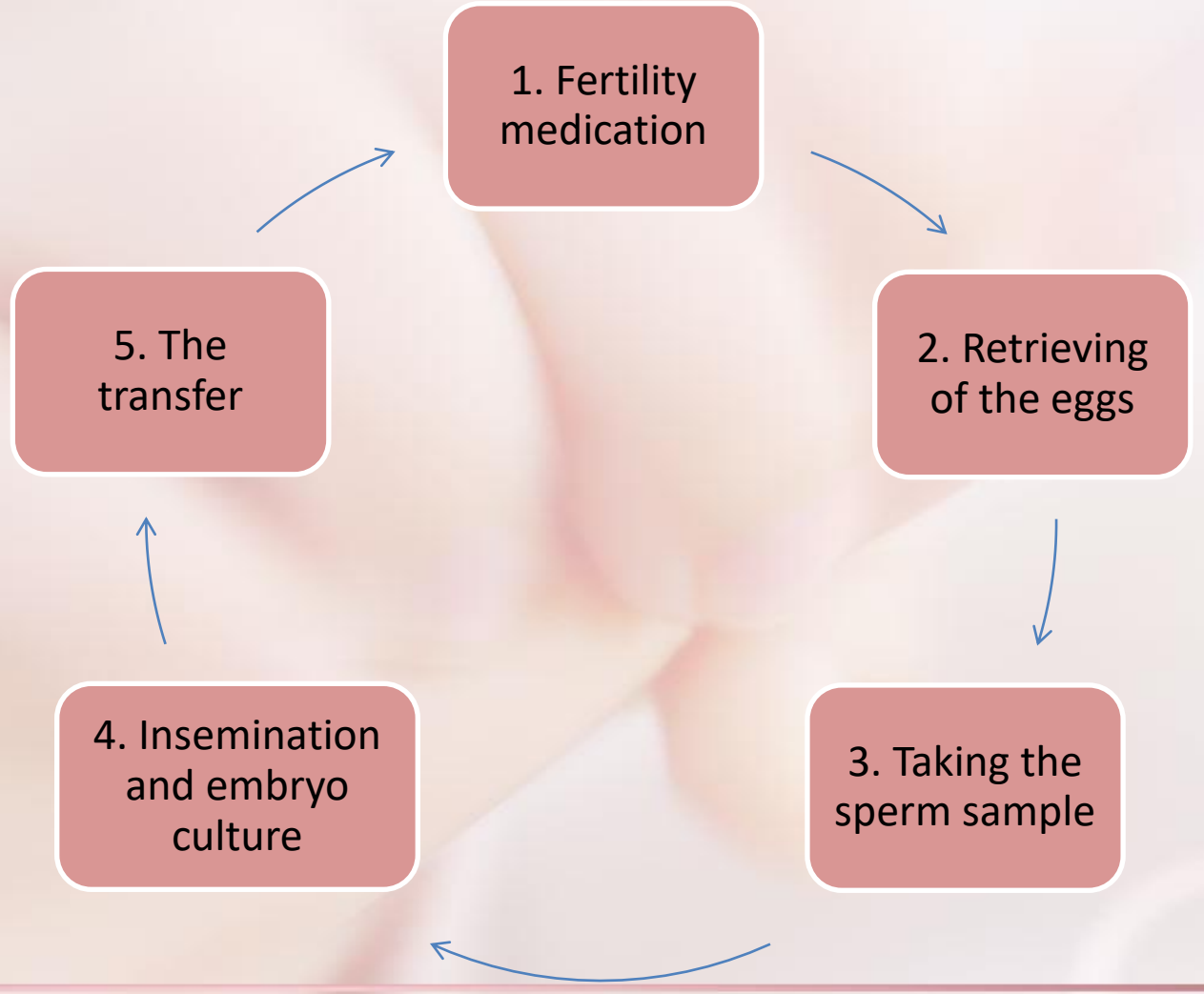


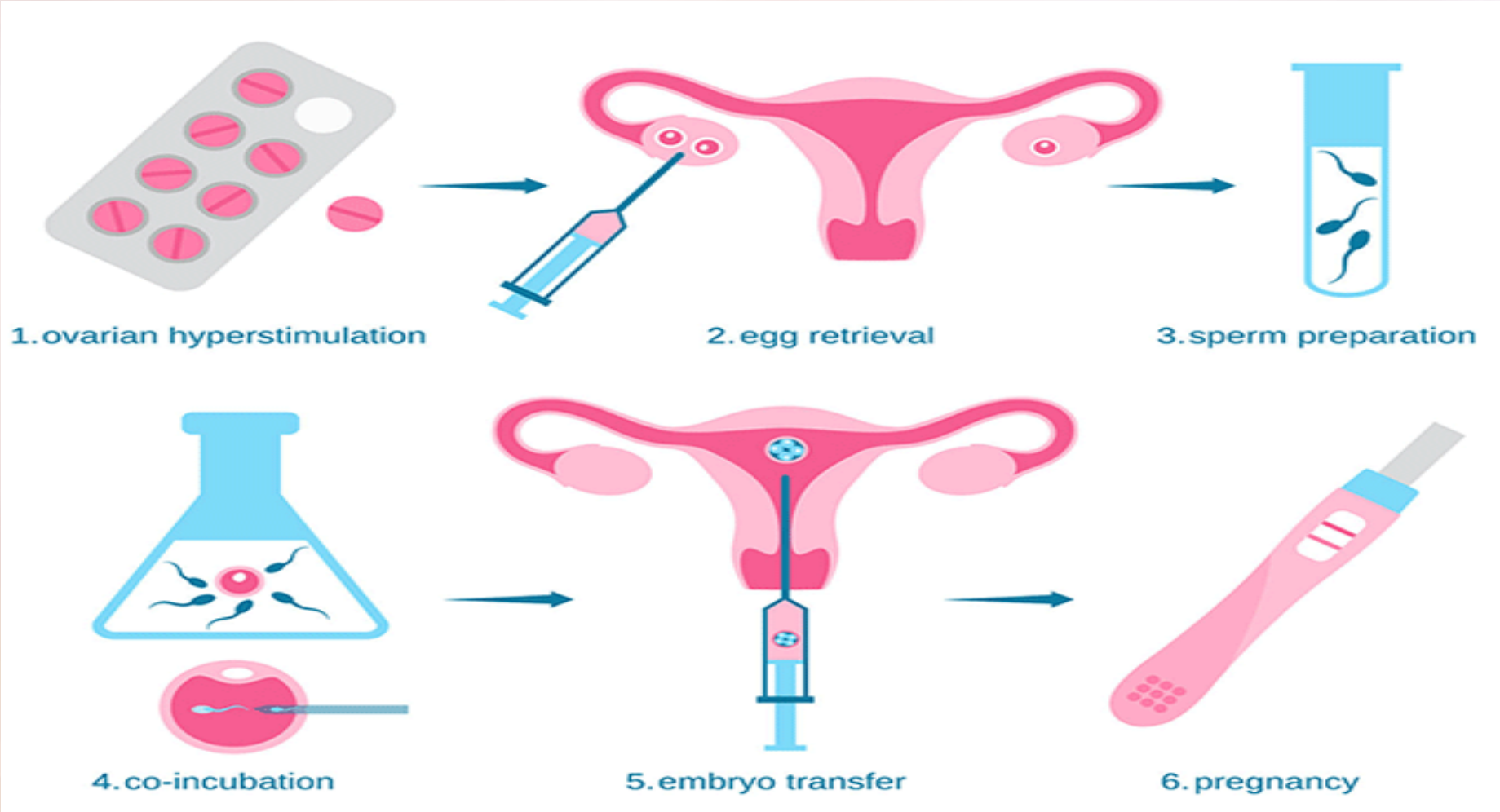
WHY IS IVF USED

- Blocked or damaged Fallopian tubes
- Male infertility including decreased sperm motility
- Women who have had their Fallopian tubes removed
- Women with ovulation disorders
- Unexplained infertility



THE PROCESS

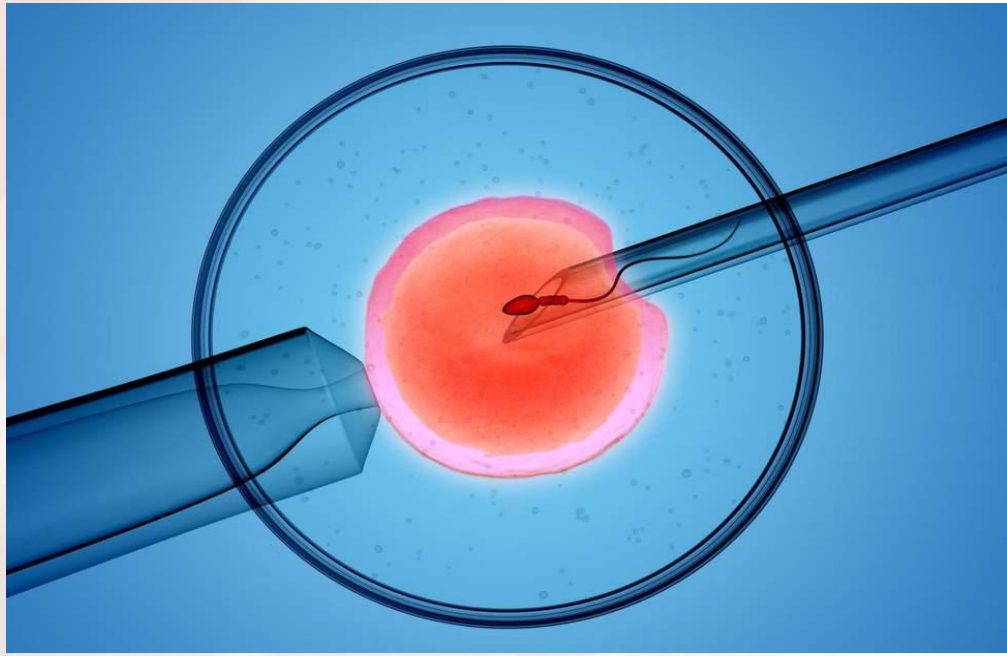



1. ovarian hyperstimulation
2. egg retrieval
3. sperm preparation
4. co-incubation
5. embryo transfer
6. pregnancy


IN VITRO FERTILIZATION
1
OVARIAN HYPERSTIMULATION
2
EGG RETRIEVAL
3
SPERM PREPARATION
4
CO-INCUBATION
5
EMBRYO TRANSFER
6
PREGNANCY

Transfer of the embryo

Insemination



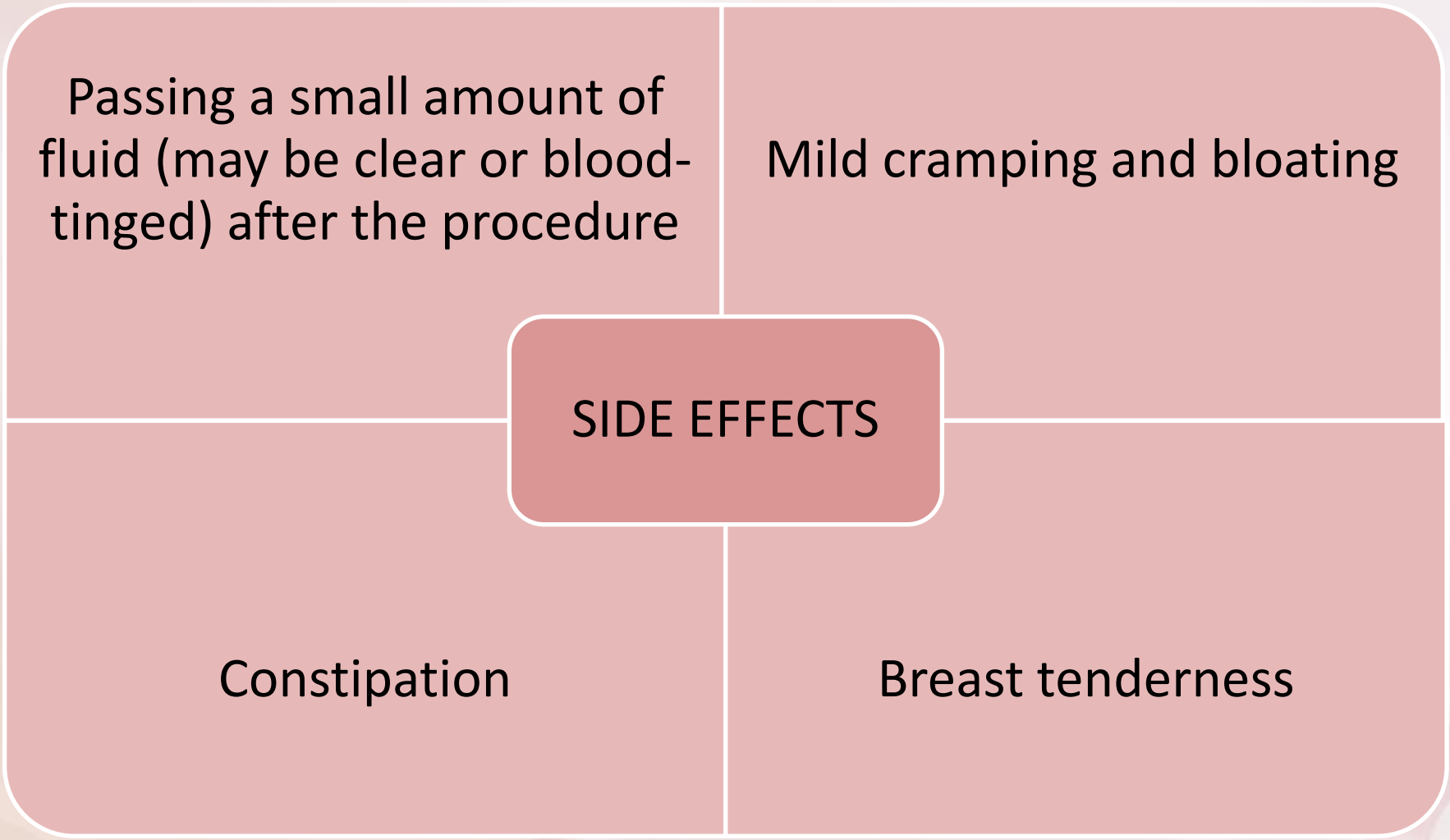
ASSOCIATED RISKS

- Nausea or vomiting
- Decreased urinary frequency
- Shortness of breath
- Severe stomach pains and bloating

- Ten-pound weight gain within three to five days

- Egg retrieval carries risks of bleeding, infection, and damage to the bowel or bladder

- The Mayo Clinic reports that the risk of ectopic pregnancy with IVF are 2-5%. An ectopic pregnancy is when a fertilized egg implants anywhere outside the uterus and is not viable.


Passing a small amount of fluid (may be clear or blood-tinged) after the procedure
Mild cramping and bloating
SIDE EFFECTS
Constipation
Breast tenderness

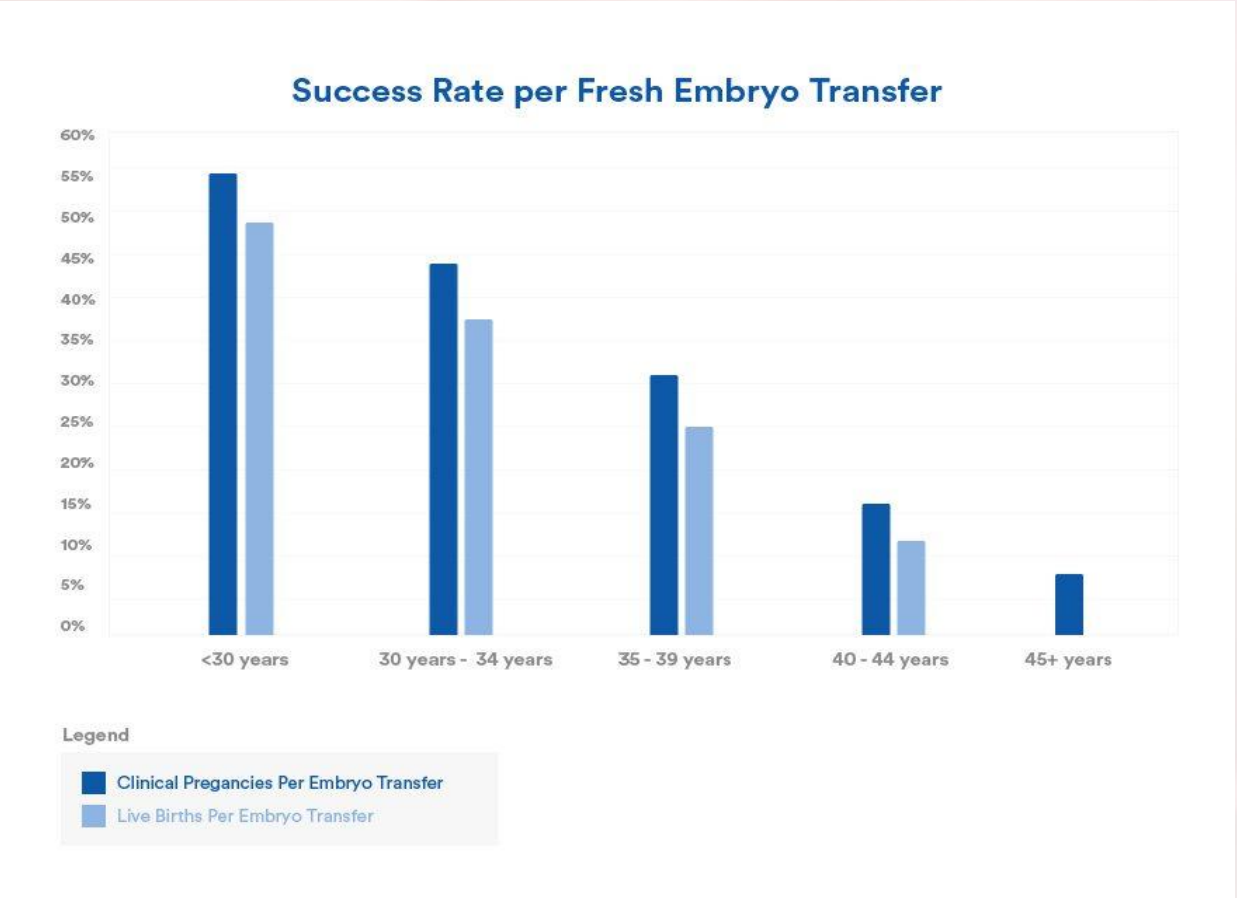
HOW SUCCESSFUL IS IVF?

The success rate of IVF clinics depends on :

- reproductive history
- maternal age
- the cause of infertility
- lifestyle factors

It is also important to understand that pregnancy rates are not the same as live birth rates.

THE PERCENTAGE OF IVF TREATMENTS THAT RESULTED IN A LIVE BIRTH



HOW MUCH DOES IVF COST?

The fees for 1 cycle of IVF include:

- medicines
- procedures
- anaesthesia
- embryo storage
- ultrasounds
- blood tests
- lab work

The exact cost of a single IVF cycle varies, but it can be up to $15,000 or more.

FIRST IVF BABY

- IVF's story starts around 1890, when scientist Walter Heape transferred a fertilized egg from an Angora rabbit into a different breed, and saw that Angora bunnies resulted.
- Louise Brown(40) is the first baby conceived with IVF, born on July 25, 1978.
- At 11:47 p.m. on July 25, 1978 she was born by Caesarean section at the Royal Oldham Hospital in England. She was conceived in a petri dish on November 12, 1977, also near midnight.

BRITAIN'S BIGGEST EVENING SALE

Evening News

LATE SPECIAL CITY PRICES

LONDON THURSDAY JULY 27 1978

Meet Louise, the world's first test-tube arrival

SUPERBABE

Wide-eyed Louise Brown pictured in hospital 18 hours after she was born. Today she's doing well. See Page Three

In Romania, the first IVF baby is Virgil Godeanu (18).He was born in a private hospital in Bucharest.

CELEBRITIES WHO USED IVF

- ✓ Michelle Obama

- ✓ Courteney Cox

✓Celine Dion

✓Emma Thompson

- ✓Kim Kardashian

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- http://americanpregnancy.org/infertility/in-vitro-fertilization/
- https://www.plannedparenthood.org/learn/pregnancy/fertility-treatments/what-ivf
- https://www.nhs.uk/conditions/ivf/

THANK YOU!

AMYOTROPHIC LATERAL SCLEROSIS(ALS), A DEATH SENTENCE

Alexandra Busuioc

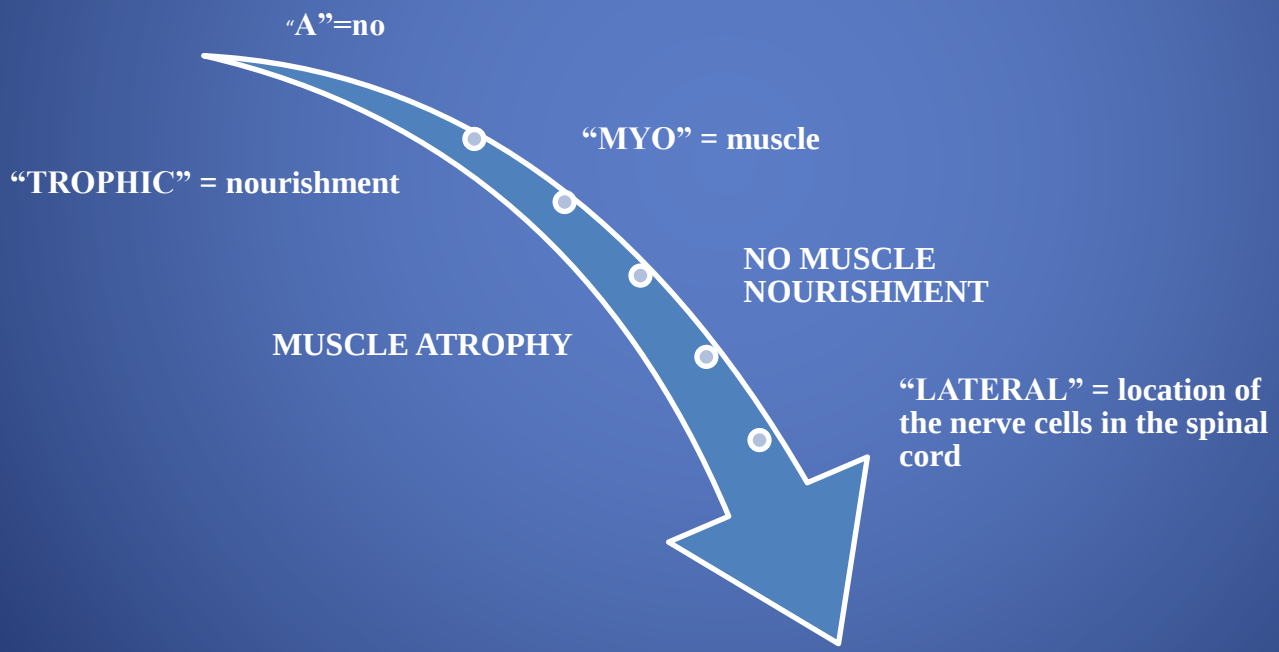
"Victor Babeș" University of Medicine and Pharmacy Timișoara, Romania

CONTENT

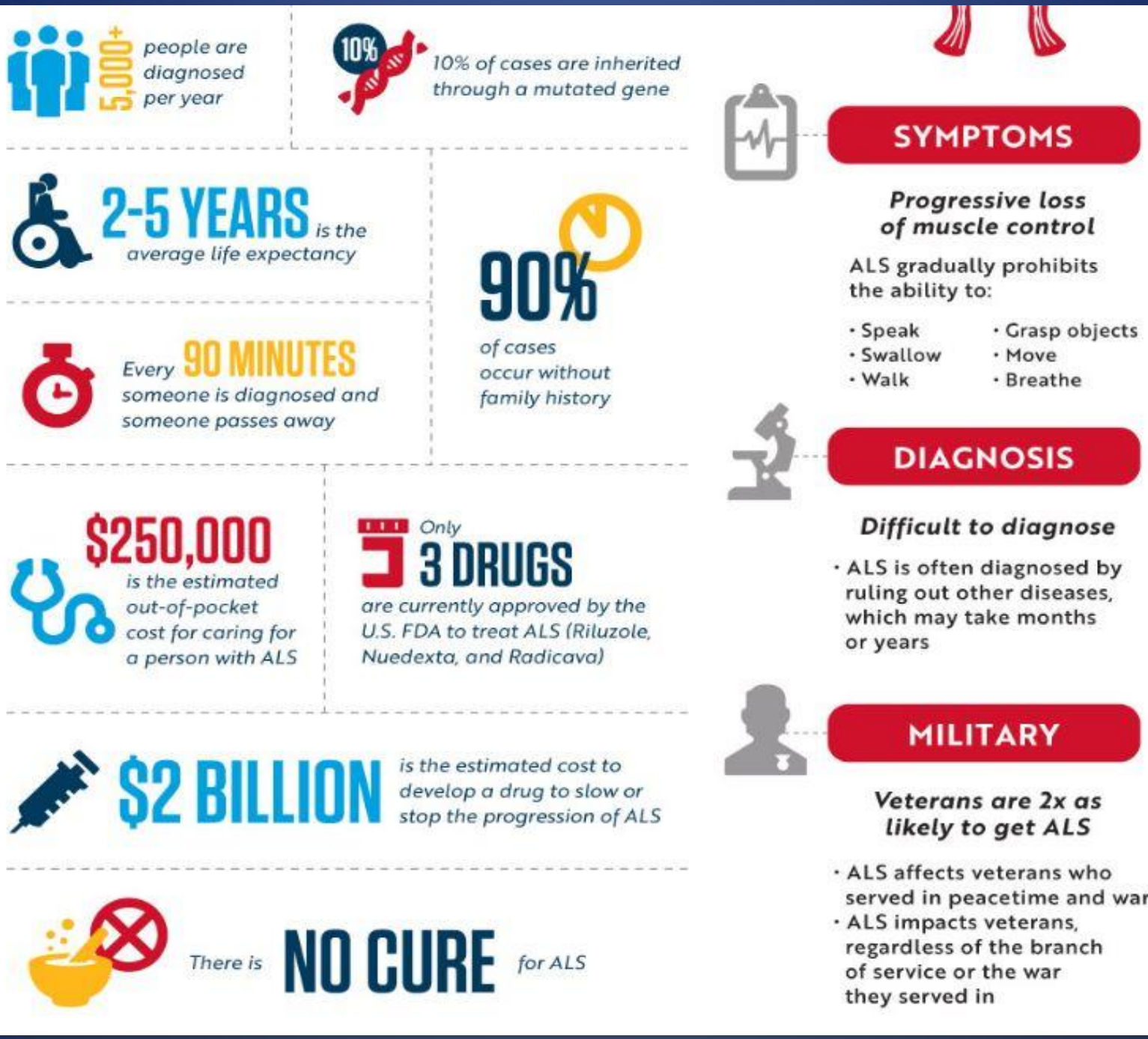
- Overview
- History
- Classification
- Signs and symptoms
- Causes and risk factors
- Diagnosis
- Management and treatment
- Progression
- Society and culture
- Research
- Bibliography

OVERVIEW

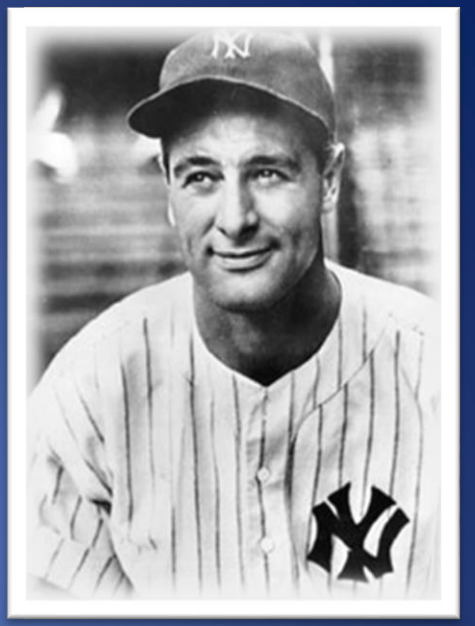
- Motor neuron diseases (MND)
- Lou Gehring's disease

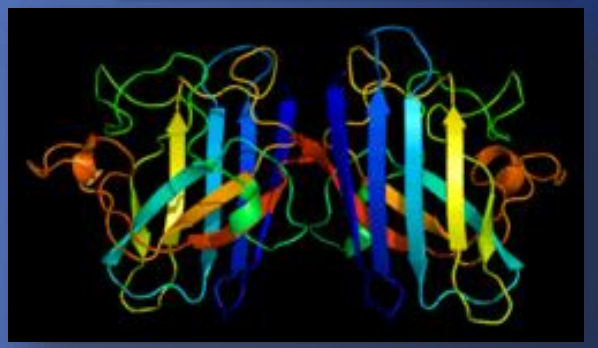


Degeneration = SCLEROSIS


5,000+ people are diagnosed per year
10% 10% of cases are inherited through a mutated gene
2-5 YEARS is the average life expectancy
90% of cases occur without family history
Every 90 MINUTES someone is diagnosed and someone passes away
$250,000 is the estimated out-of-pocket cost for caring for a person with ALS
Only 3 DRUGS are currently approved by the U.S. FDA to treat ALS (Riluzole, Nuedexta, and Radicava)
$2 BILLION is the estimated cost to develop a drug to slow or stop the progression of ALS
There is NO CURE for ALS
SYMPTOMS
Progressive loss of muscle control
ALS gradually prohibits the ability to:
• Speak
• Swallow
• Walk
• Grasp objects
• Move
• Breathe
DIAGNOSIS
Difficult to diagnose
• ALS is often diagnosed by ruling out other diseases, which may take months or years
MILITARY
Veterans are 2x as likely to get ALS
• ALS affects veterans who served in peacetime and war
• ALS impacts veterans, regardless of the branch of service or the war they served in

HISTORY





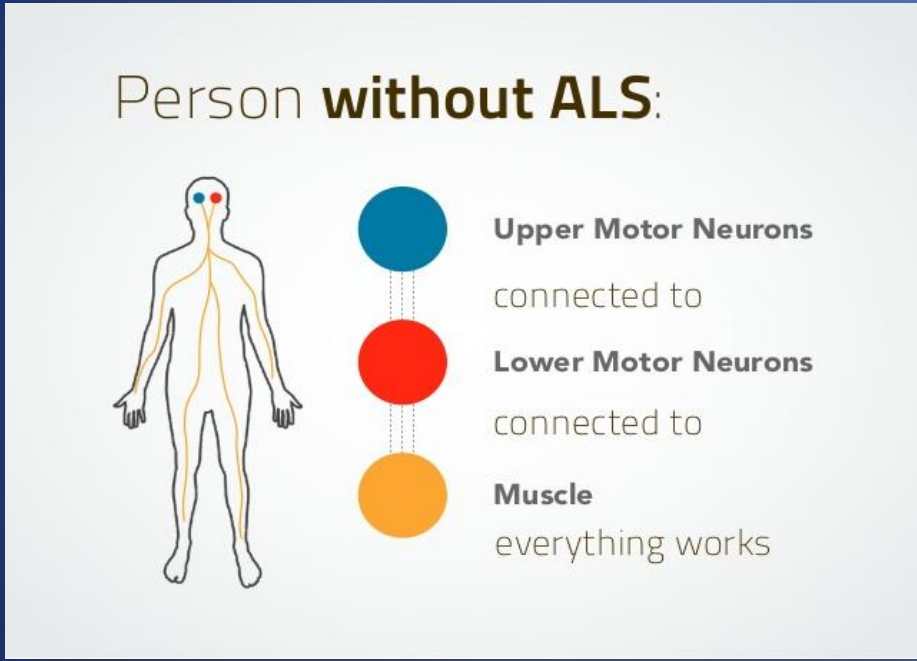
- ***Sir Charles Bell*** – 1824
- ***François-Amilcar Aran*** – 1850 ,"progressive muscular atrophy“
- ***Jean-Martin Charcot***
  - 1869, connection between symptoms and neurological problems
  - 1874, the term ”*amyotrophic lateral sclerosis”*
- ***Edmé Félix Alfred Vulpian*** – 1886, *Flail arm syndrome*
- ***Pierre Marie & Patrikios*** – 1918, *Flail leg syndrome*
- United States, ***Lou Gehrig*** – 1939
- ***SOD1 (superoxide dismutase 1)*** – 1993
- December 1995, ***riluzole*** became the first FDA-approved drug for ALS. Europe – 1996 Japan – 1998.
- ***Edaravone*** was approved to treat ALS in Japan and South Korea in 2015 and in the United States in 2017.
- **As of 2018, it has not been approved to treat ALS in Europe**

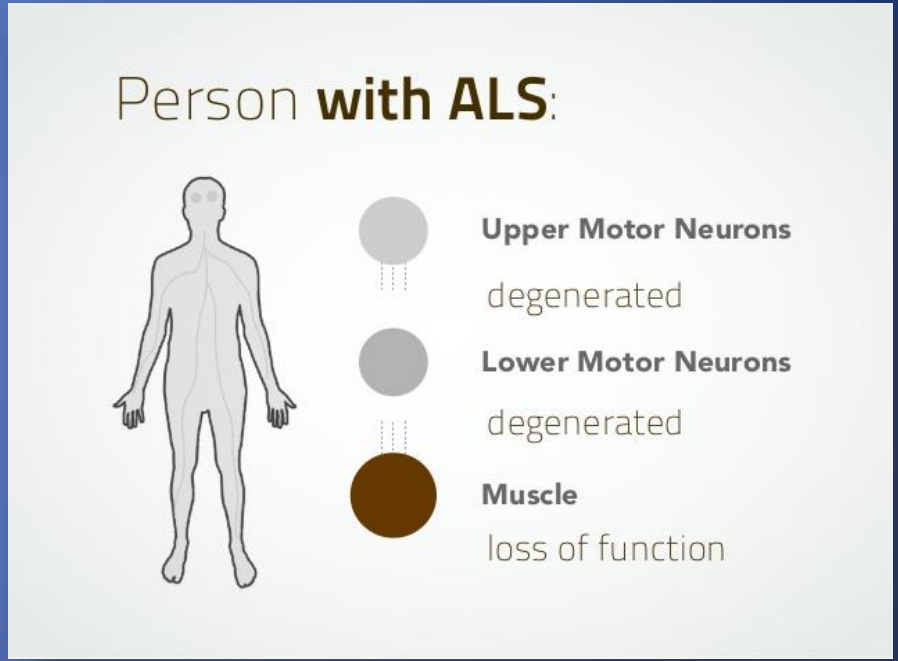
CLASSIFICATION

- ***MND***
  - amyotrophic lateral sclerosis (ALS)
  - primary lateral sclerosis (PLS)
  - progressive muscular atrophy/Duchenne-Aran muscular atrophy (PMA)
  - progressive bulbar palsy (PBP)
  - pseudobulbar palsy (PP)
  - spinal muscular atrophy (SMA)
- ***ALS***
  - slow/fast progression
  - inherited/sporadic
  - starting point

Classical ALS, PLS and PMA

ALS



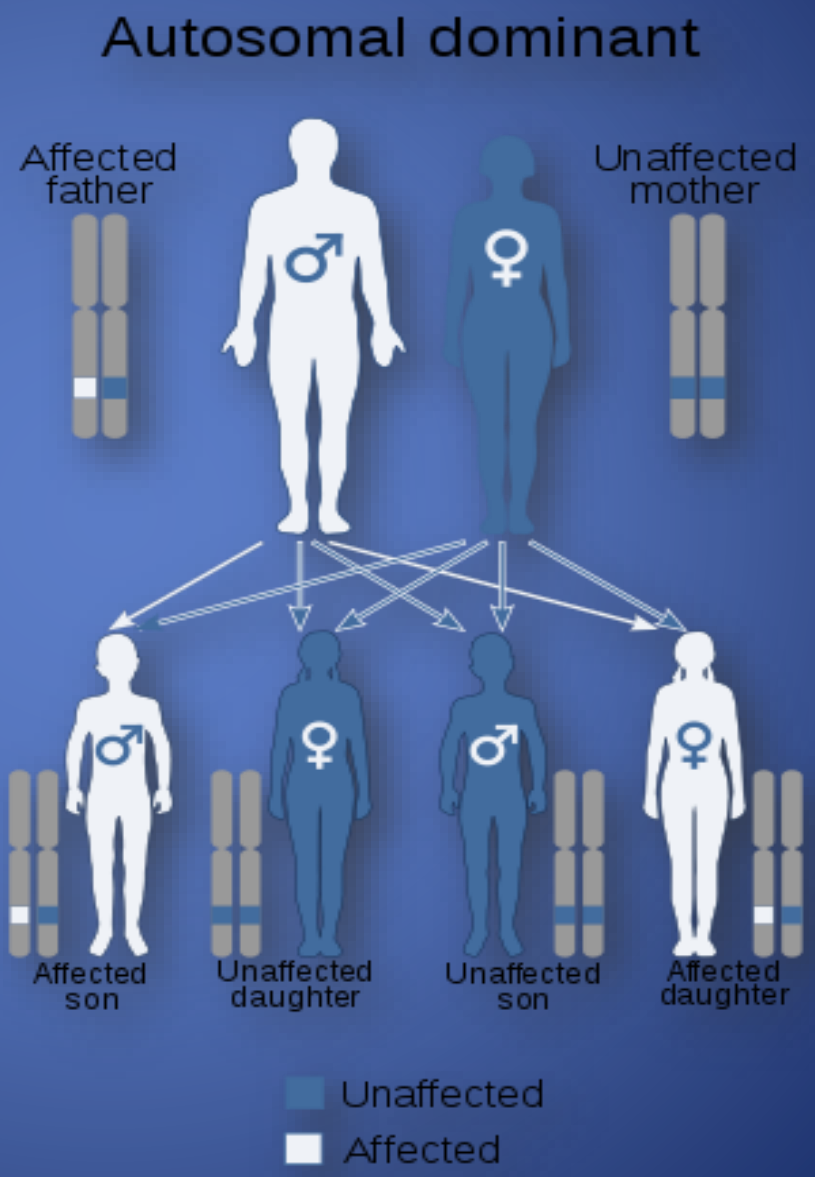


- **spinal-onset / limb-onset** -> arms, legs
- **bulbar-onset** -> muscles of speech, chewing, swallowing

The anterior (ventral) spinal motor nerve roots demonstrate **atrophy**, as seen here in comparison with **normal** ventral spinal cord nerve roots.

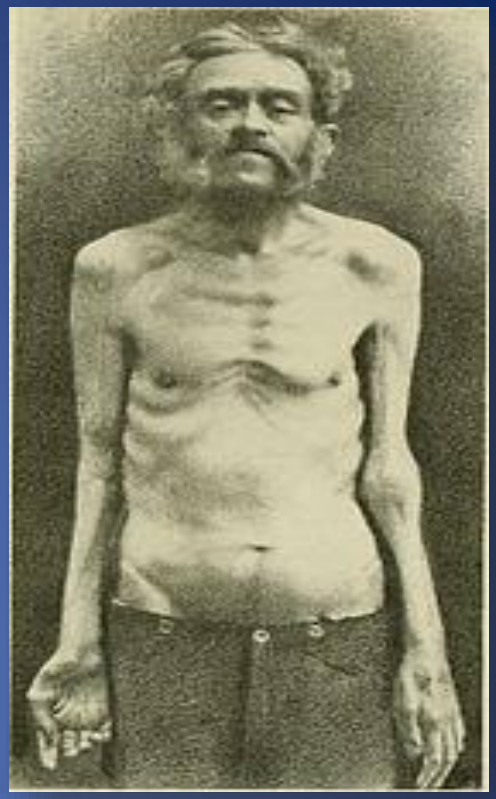
PLS

- Upper motor neurons in the arms and legs
- Developing lower motor neuron signs within four years of symptom onset
- Better prognosis than classic ALS



PMA

- Lower motor neurons in the arms and legs
- Upper motor neuron signs can develop late in the course of PMA
- Longer survival than classic ALS



Regional variants

Flail arm syndrome/brachial amyotrophic diplegia

- Regional variant of PMA
- Lower motor neuron damage in the cervical spinal cord only
- Proximal arm muscles
- Decreased or absent reflexes

Flail leg syndrome/leg amyotrophic diplegia

- Regional variant of PMA
- Lower motor neuron damage in the lumbosacral spinal cord
- Legs
- Decreased or absent reflexes

Isolated bulbar ALS

- Lower or/and upper motor neurons
- Damage in the bulbar region
- Dysarthria
- Dysphagia

Age of onset

- 58 to 63 for ***sporadic ALS***
- 47 to 52 for ***familial ALS***
- before age 45 ***("young-onset" ALS)***
- before age 25 ***(juvenile ALS)***

Sporadic ALS

- occurs at random
- no clearly associated risk factors
- no family history of the disease

Familial/Genetic ALS

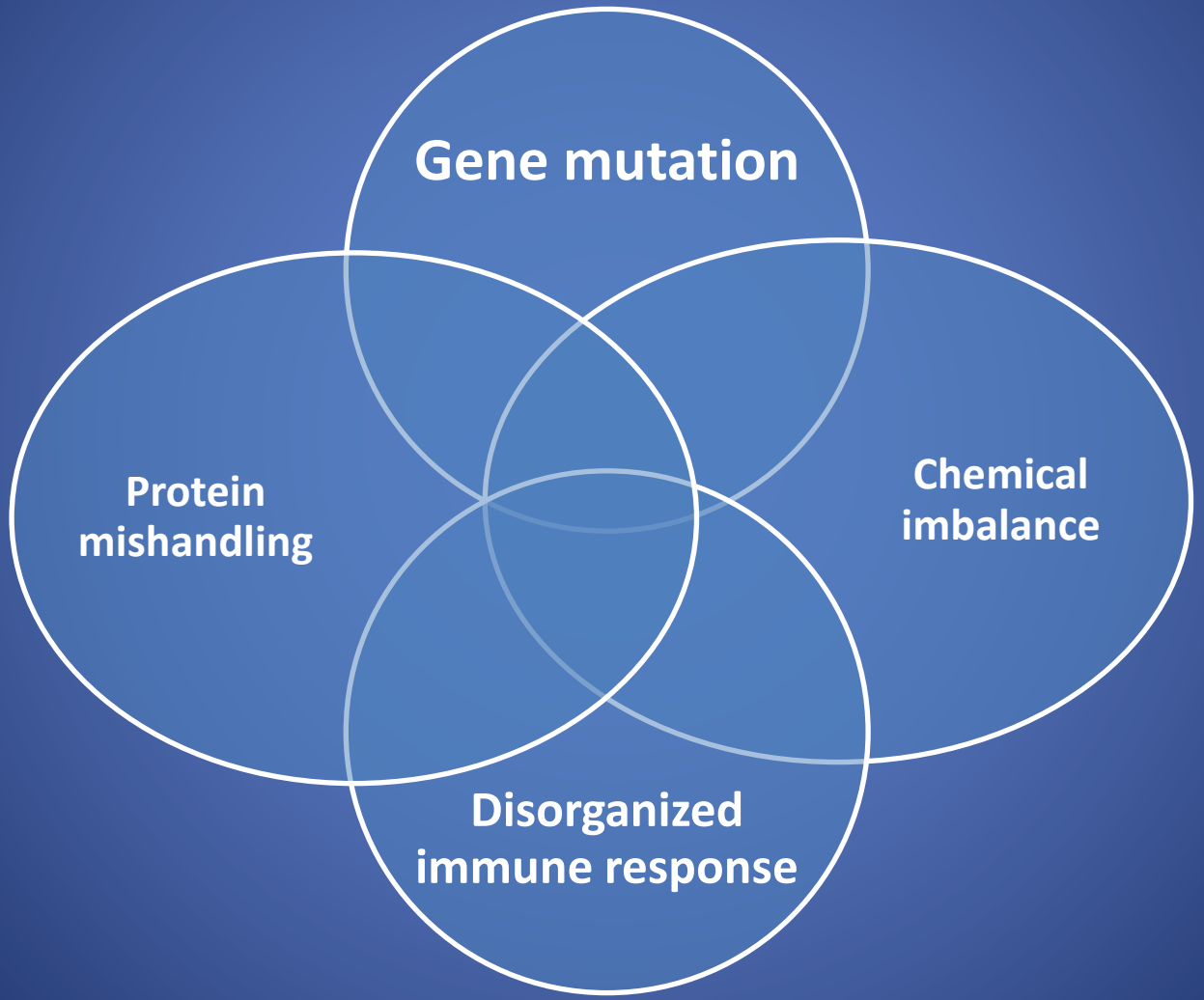
- inherited
- *"chromosome 9 open reading frame 72"* or *C9ORF72* gene
- *superoxide dismutase 1 (SOD1)* gene

SIGNS AND SYMPTOMS

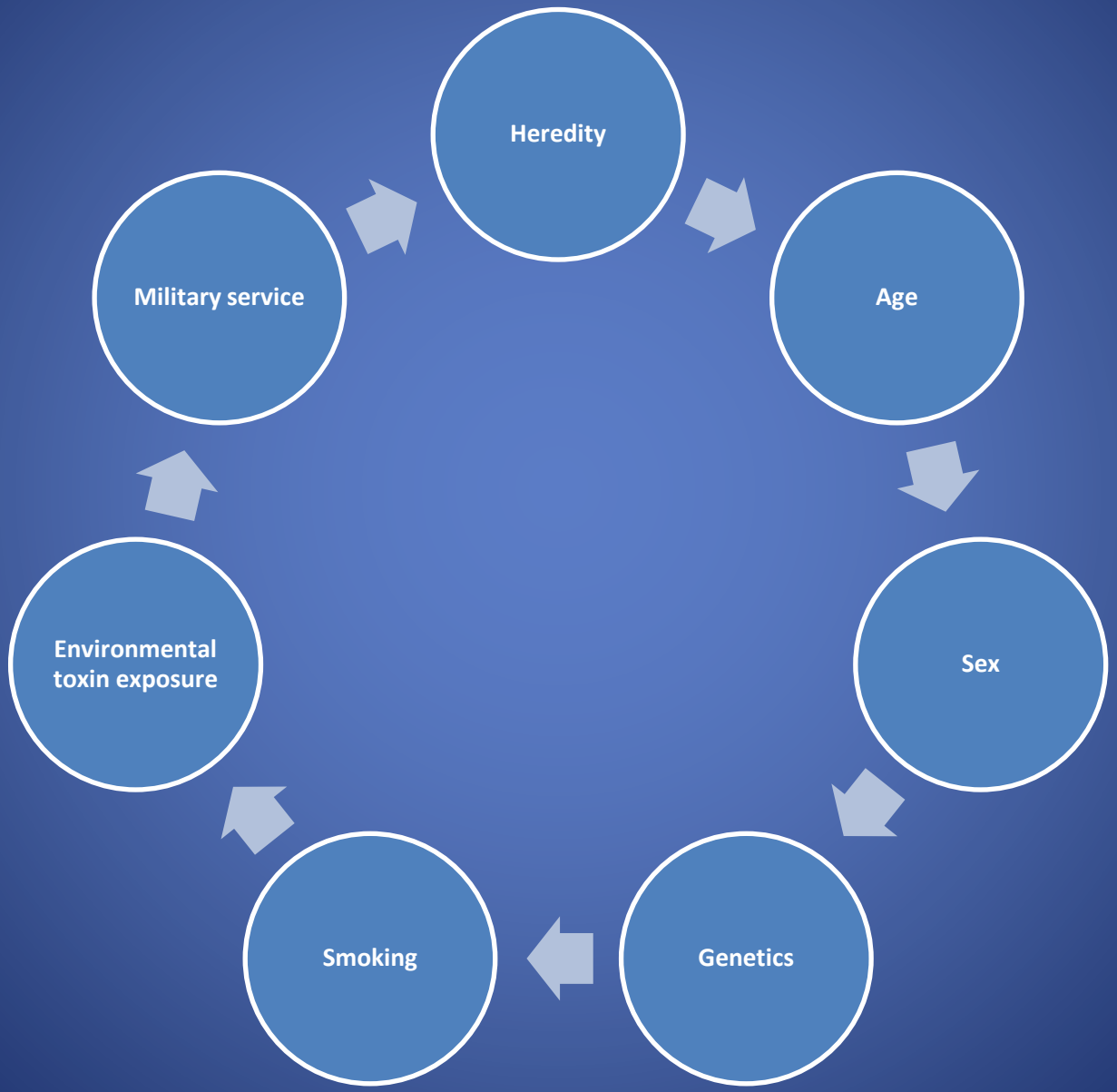
- ***Potential early signs***
  - Tripping
  - Dropping things
  - Slurred or “thick” speech
  - Difficulty swallowing
  - Weight loss
  - Decreased muscle tone
  - Shortness of breath
  - Increased or decreased reflexes
  - Uncontrollable periods of laughing or crying

- ***Potential early symptoms***
  - Feeling weak
  - Fatigue
  - Muscle cramping or twitching
  - Muscle stiffness or rigidity

CAUSES


Gene mutation
Protein mishandling
Chemical imbalance
Disorganized immune response

RISK FACTORS



DIAGNOSIS

Electromyogram (EMG)

Nerve conduction study

Muscle biopsy

Spinal tap (lumbar puncture)

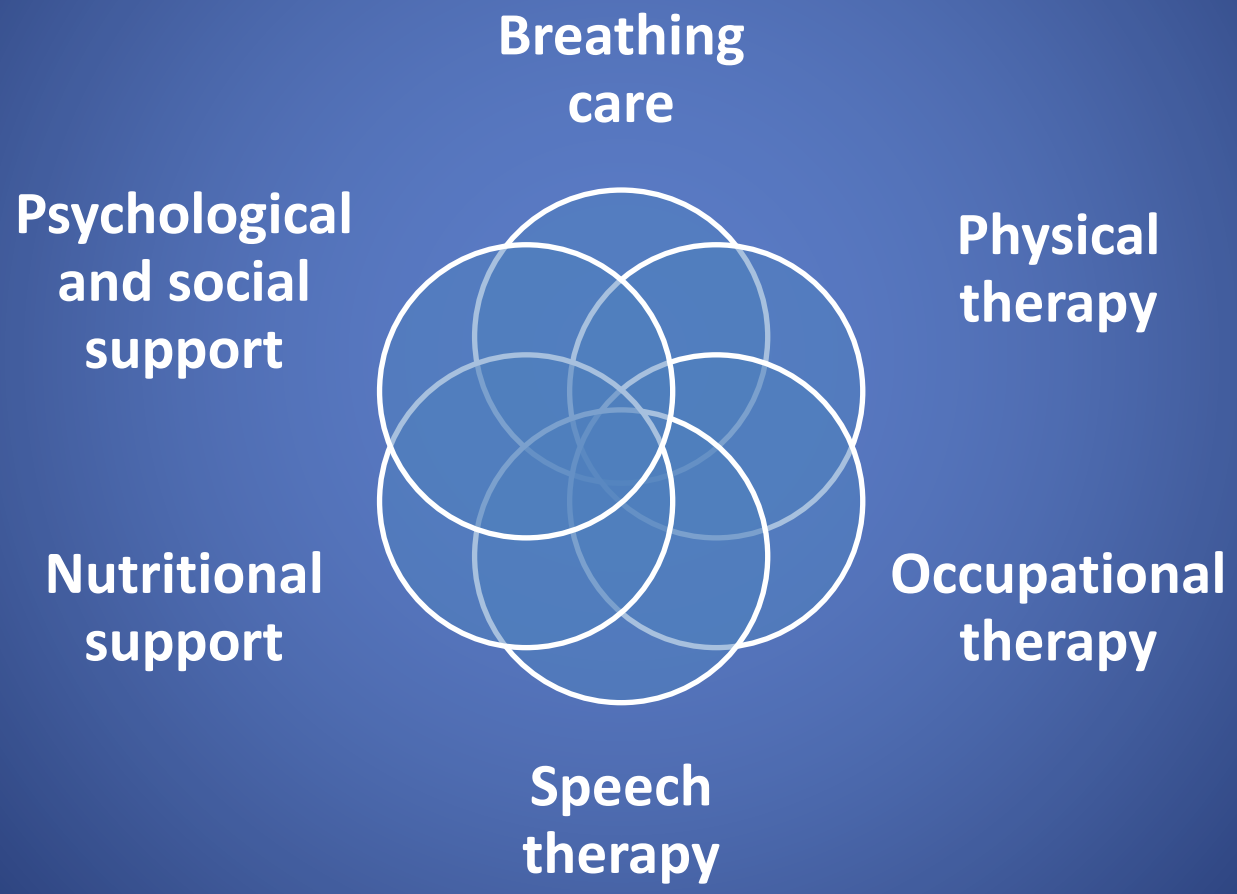
Magnetic resonance imaging (MRI)

Blood and urine tests

MANAGEMENT AND TREATMENT

- ***Management***
  - treating symptoms
  - providing supportive care
  - improving quality of life
  - prolonging survival
- ***Treatment***
  - slow the progression of symptoms
  - prevent complications
  - make the patient independent
- ***Medications***
  - **Riluzole (Rilutek)**
  - **Edaravone (Radicava)**

Therapies


Breathing care
Physical therapy
Occupational therapy
Speech therapy
Nutritional support
Psychological and social support

PROGRESSION

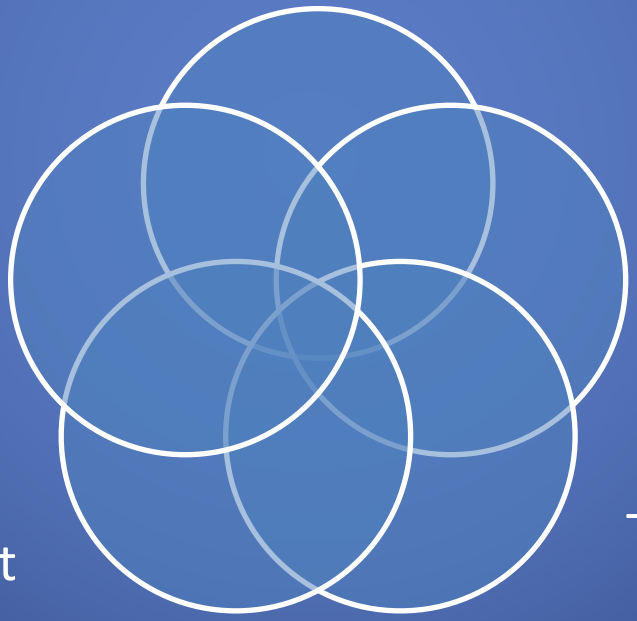
Symptoms as ALS progresses

- Difficulty breathing
- Coughing when eating or drinking
- Difficulty forming words or projecting voice
- Fatigue caused by muscle exhaustion
- Reduced food intake and weight loss
- Insomnia caused by discomfort
- Excessive saliva or dry mouth

Coping and support

Take time to grieve

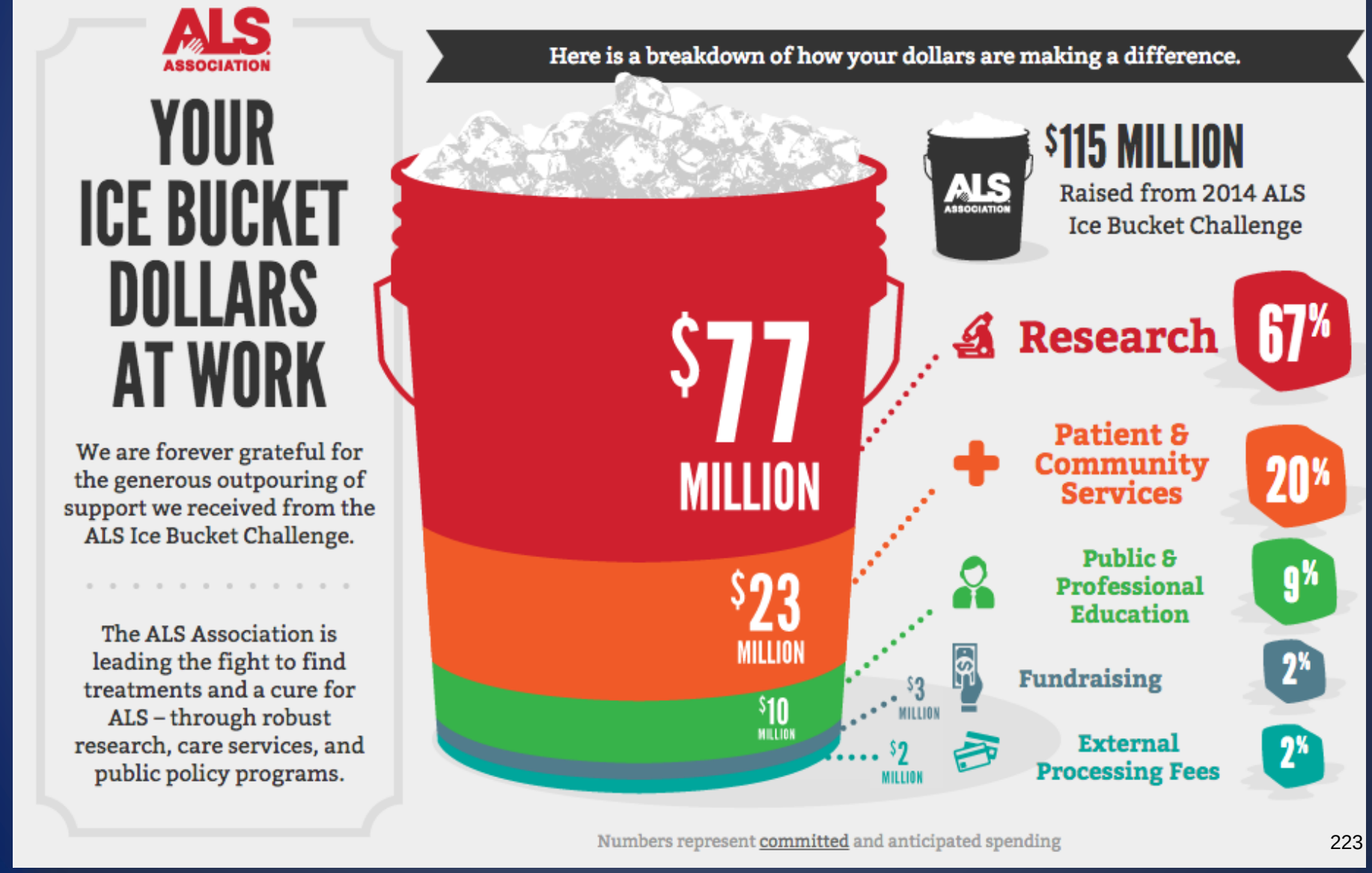
Make decisions now about your future medical care



Be hopeful

Join a support group

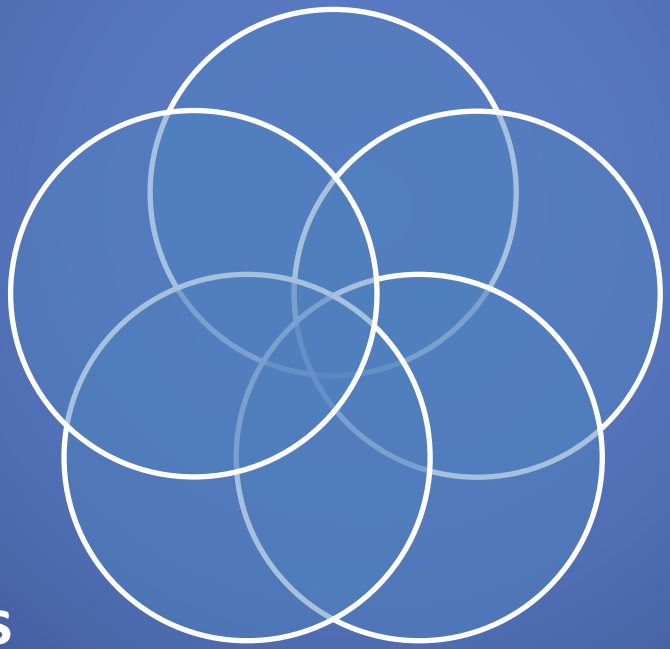
Think beyond the physical changes


ALS ASSOCIATION
YOUR ICE BUCKET DOLLARS AT WORK
We are forever grateful for the generous outpouring of support we received from the ALS Ice Bucket Challenge.
The ALS Association is leading the fight to find treatments and a cure for ALS – through robust research, care services, and public policy programs.
Here is a breakdown of how your dollars are making a difference.
$77 MILLION
$23 MILLION
$10 MILLION
$3 MILLION
$2 MILLION
$115 MILLION
Raised from 2014 ALS Ice Bucket Challenge
Research 67%
Patient & Community Services 20%
Public & Professional Education 9%
Fundraising 2%
External Processing Fees 2%
Numbers represent committed and anticipated spending

RESEARCH

Cellular defects

New treatment options



Stem cells

Biomarkers

Familial versus sporadic ALS

The National Institute of Neurological Disorders and Stroke (NINDS) – component of the National Institutes of Health (NIH)

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- http://www.alsa.org/fight-als/ibc-infographic.html

Thank you all for your attention!

LIFE AFTER DEATH

Daria Caragea

"Victor Babeș" University of Medicine and Pharmacy Timișoara, Romania

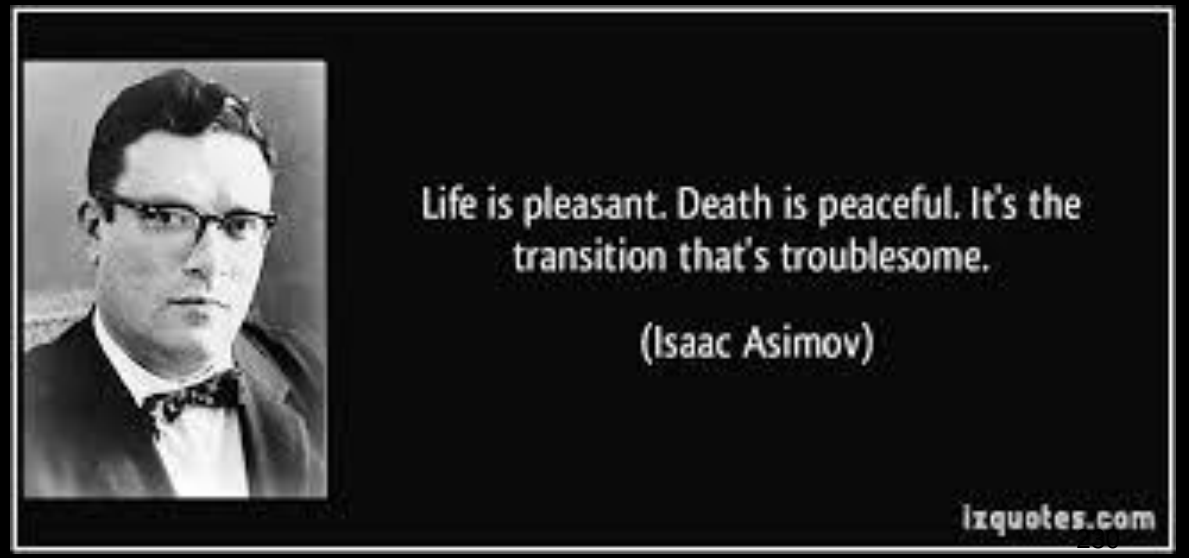
CONSCIOUSNESS AFTER CLINICAL DEATH: "WHETHER IT FADES AWAY AFTERWARDS, WE DO NOT KNOW"

- Right after death, consciousness is not lost
- Conscious awareness continues for up to three minutes into the period when the heart is not beating
- The brain typically shuts down within 20-30 seconds

- Resurrection is a medical possibility
- Persons can be brought back to life with no neurological damage
- This method includes cooling the body to slow consumption of oxygen and cell death, but it requires the involvement of specialists to pull off

WHY SHOULD WE DOUBT THE REALITY OF THEIR EXPERIENCE?

- It would be wrong to see them as mere fabrications
- It's a medical paradox
- We have to conclude that death is a pleasant experience for most people



EXPLORING OBJECTIVELY WHAT HAPPENS WHEN WE DIE

- Out of body experiences
- Everything that he said had happened to him had actually happened
- "These experiences feel very real to those who had them"

- This near death experience dates back to the 18th century
- He recalled “such a pure and extreme light that he thought he was in Heaven”

Experiment:

- Suspended boards with painted writing and figures on their upper sides
- These simple devices had the capability of turning conventional neuroscience on its head

WHAT DOES IT FEEL LIKE TO DIE?

- No feeling of pain
- Seeing bright lights
- The feeling of leaving the body
- Something pleasant
- Slightly mystical

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- https://www.resuscitationjournal.com/article/S0300-9572(14)00588-7/fulltext

Medical NGOs

Oana Cioloca

"Victor Babeș" University of Medicine and Pharmacy, Timisoara, Romania

IFMSA

International Federation of Medical Students' Associations

Partners In Health

ENGAGE

Save the Children®

Medical Students' Association

EMSA

European

MEDECINS SANS FRONTIERES

DOCTORS WITHOUT BORDERS

STUDENT ORGANIZATIONS

IFMSA is one of the world's oldest and largest student-run organizations. It represents, connects and engages every day with medical students from 127 national members organizations in 119 countries around the globe. Their work is divided in four main global health areas: public health, sexual and reproductive health, medical education, human rights and peace

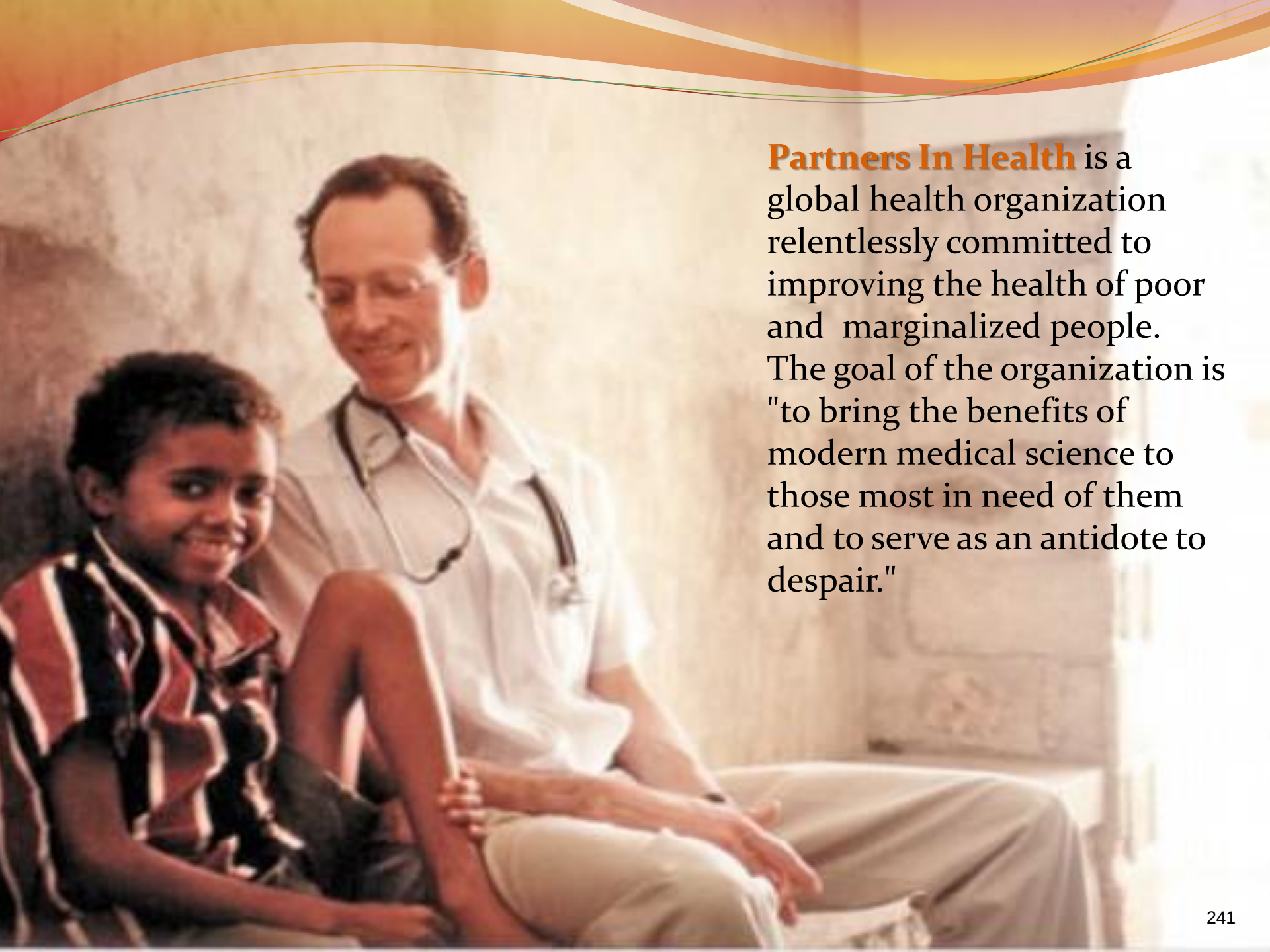
EMSA envisions a united and solidary Europe in which medical students actively promote health. EMSA empowers medical students to advocate health in all policies, excellence in medical research, interprofessional healthcare education and the protection of human rights across Europe


"THE CHILD THAT IS HUNGRY MUST BE FED..."
Eglantyne Jebb,
Founder of Save The Children, 1922.
Save the Children

Save the Children invests in childhood – every day, in times of crisis and for our future. In the United States and around the world, they give children a healthy start, the opportunity to learn and protection from harm.

Save the Children

- Emergency response
- Health and nutrition
- Hunger and livelihoods
- U.S. Disaster response
- Child protection
- Child sponsorship



Partners In Health is a global health organization relentlessly committed to improving the health of poor and marginalized people. The goal of the organization is "to bring the benefits of modern medical science to those most in need of them and to serve as an antidote to despair."

MEDECINS SANS FRONTIERES
DOCTORS WITHOUT BORDERS

Doctors without borders is an international humanitarian-aid non-governmental organization (NGO) and Nobel Peace Prize laureate, best known for its projects **in war-torn regions** and **developing countries facing endemic diseases.**

These doctors and nurses decided to **volunteer their time** to solve issues of world health. The organization actively provides health care and medical training to populations in about 70 countries


NO ACT OF KINDNESS,
NO MATTER HOW SMALL,
IS EVER WASTED.
AESOP

Resources

- https://ifmsa.org/who-we-are/
- https://emsa-europe.eu/about-us/
- https://www.savethechildren.net/what-we-do#
- https://www.pih.org/our-mission
- https://www.doctorswithoutborders.org/what-we-do/faq-our-work


thank
you

GENETIC DISORDERS

Denisa Adina Ciupertea

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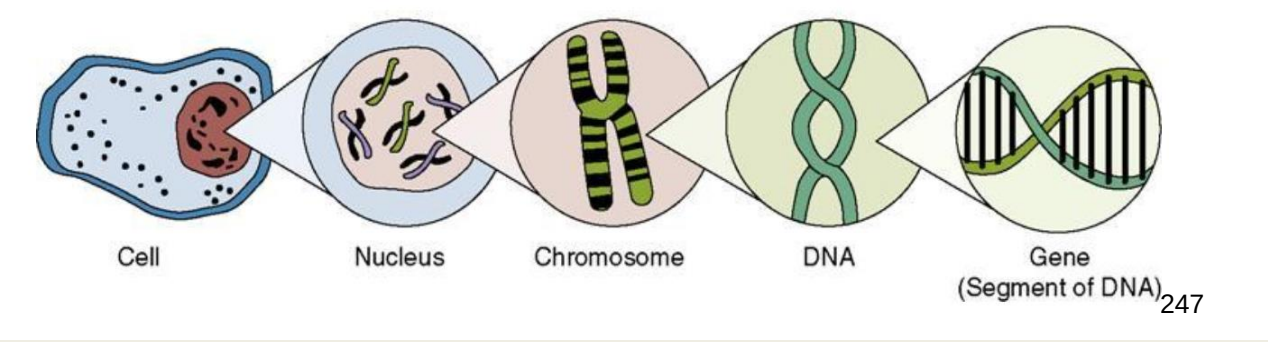
What is a genetic disorder?

- abnormality in someone's DNA
- single-base mutation in just one gene
- can involve the addition or subtraction of entire chromosomes
- quite rare – affects one person in every several thousands or millions

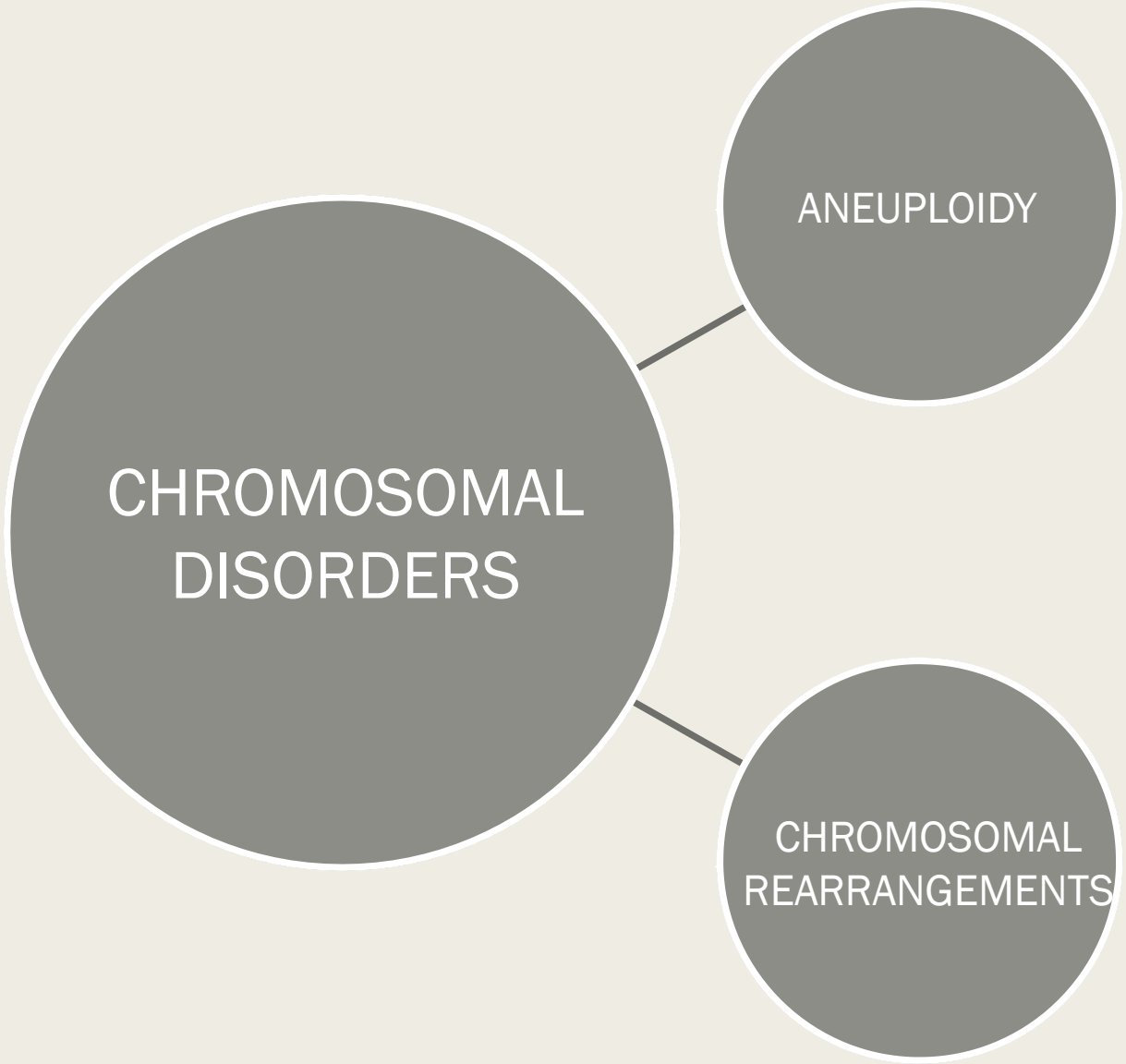


Types:

1. Chromosomal disorders

2. Single-gene disorders

3. Multifactorial disorders



- monosomy
- trisomy

- balanced
- unbalanced

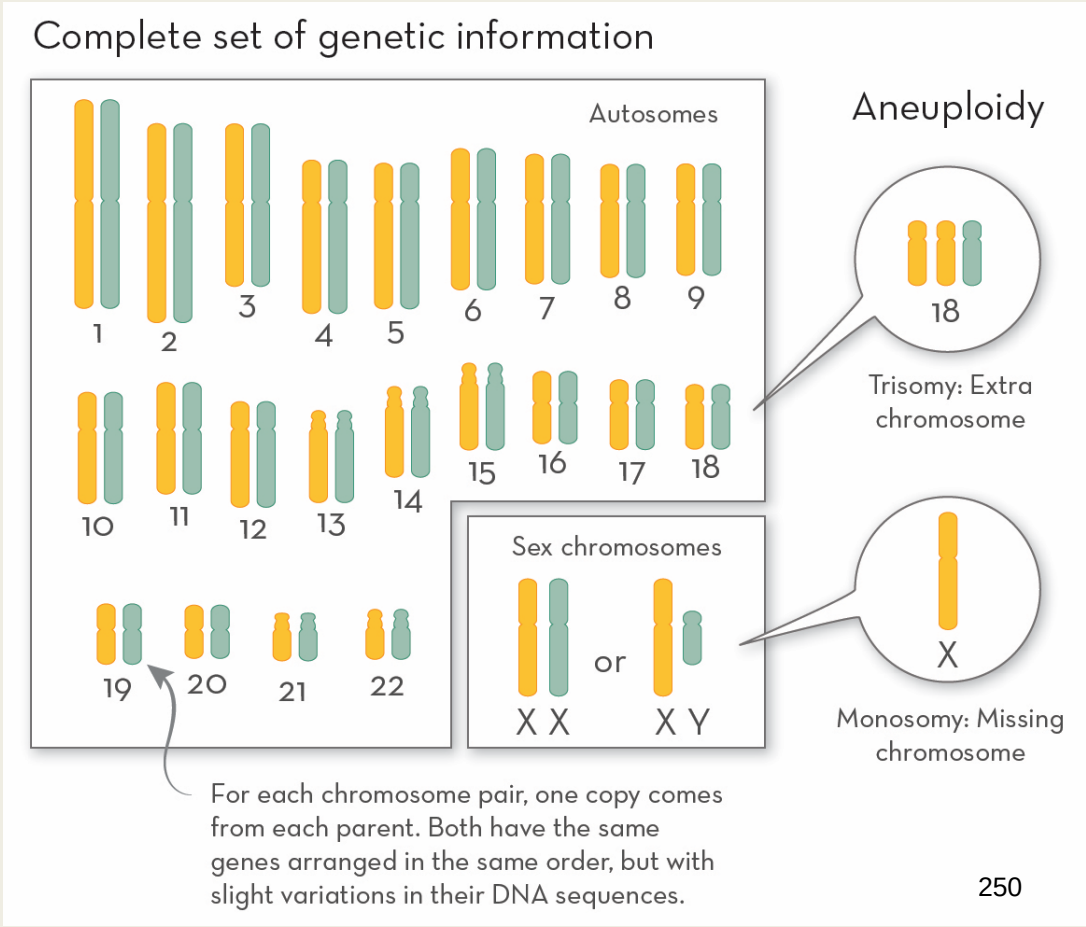
Aneuploidy

monosomy – missing a chromosome

trisomy – extra copy of one of their chromosomes

- a complete set of genetic information: 23 pairs of chromosomes
- 22 pairs of autosomes
- 1 pair of sex chromosomes: X and Y

- not inherited from the parents
- only a few types are compatible with life



Examples of aneuploidy

Turner syndrome: missing or incomplete X chromosome

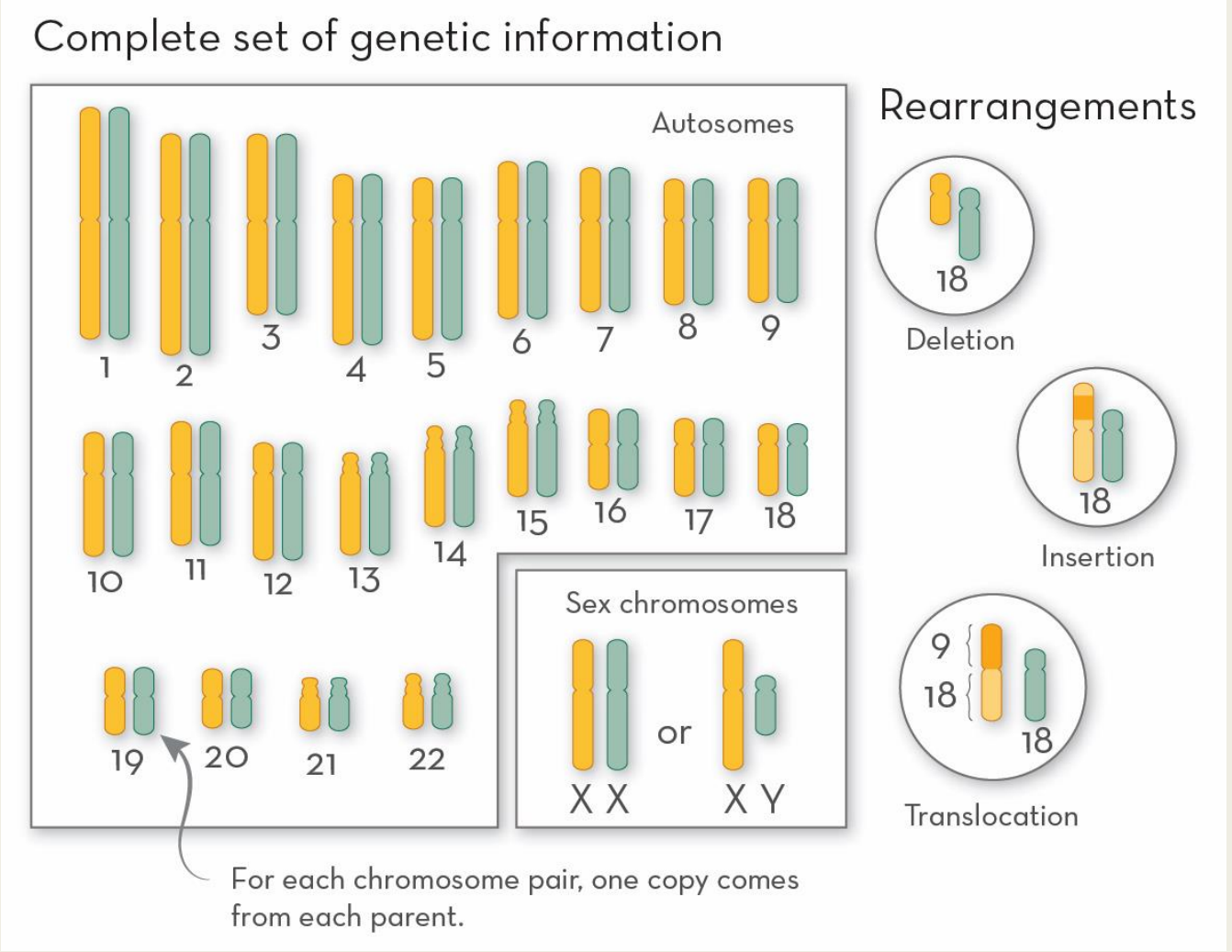
- affects growth and sexual development
- stocky build
- arms that turn out slightly at the elbow
- short webbed neck
- low hairline at the back of the neck
- swelling of hands and feet

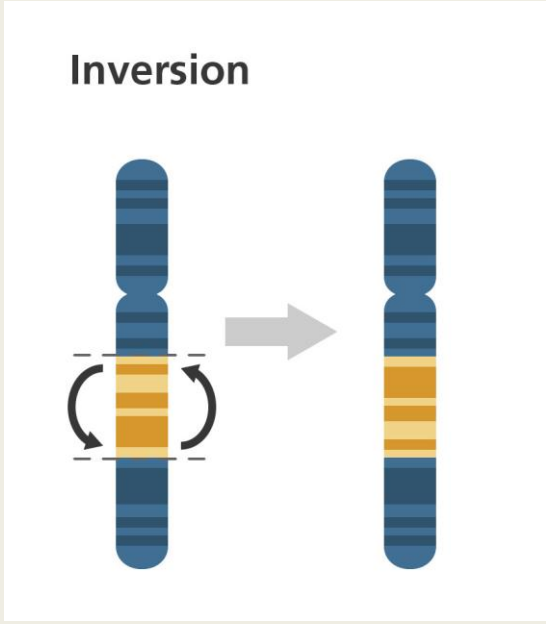
Trisomy 21

Klinefelter syndrome 47, XXY

Chromosomal rearrangements – pieces of chromosomes are missing, duplicated, or moved around

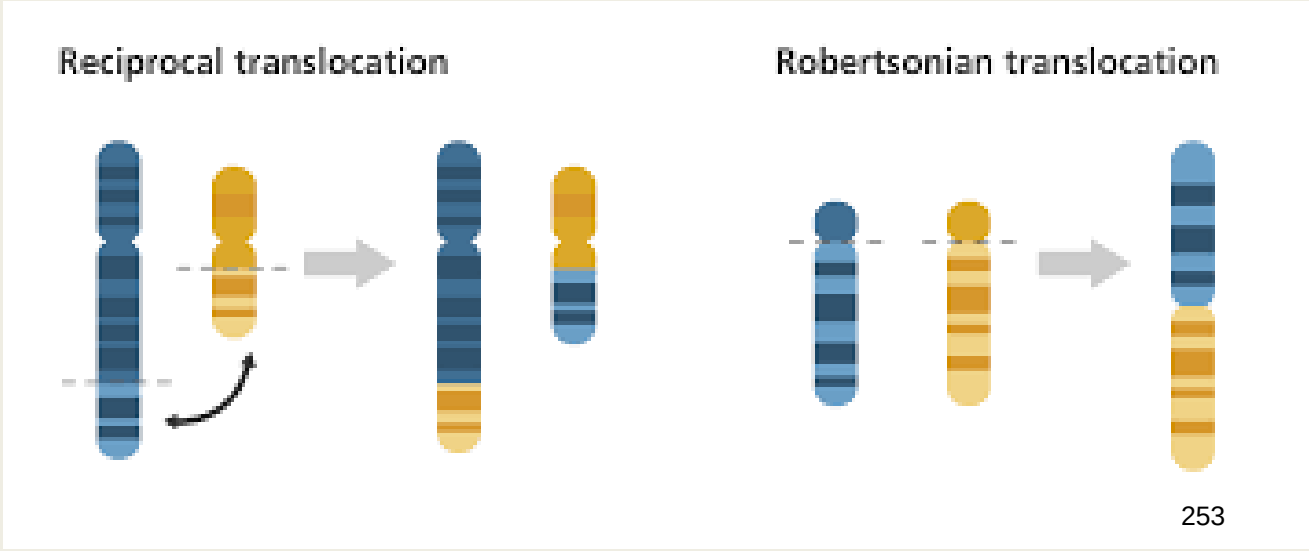
- BALANCED
- UNBALANCED





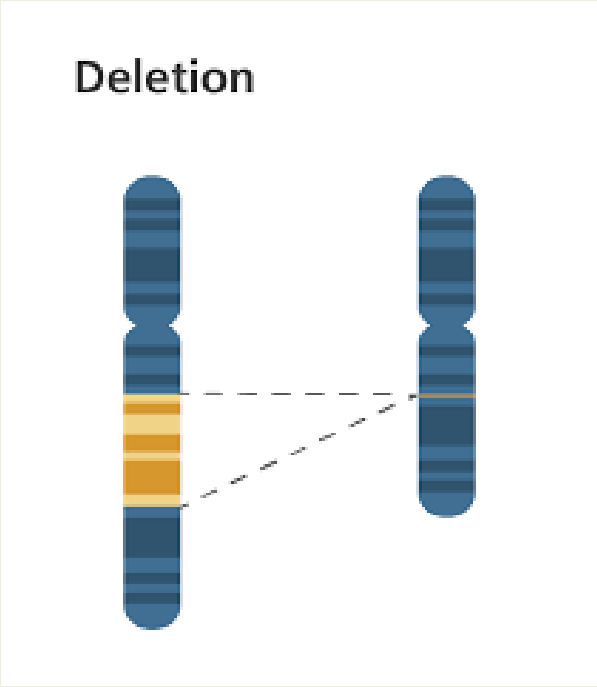
- has a complete set of genetic information
- some chromosome pieces have been moved around
- biggest issue: they are likely to pass an unbalanced rearrangement to their children
- trouble conceiving, they may have a child with a genetic disorder, or they may experience multiple pregnancy losses

BALANCED

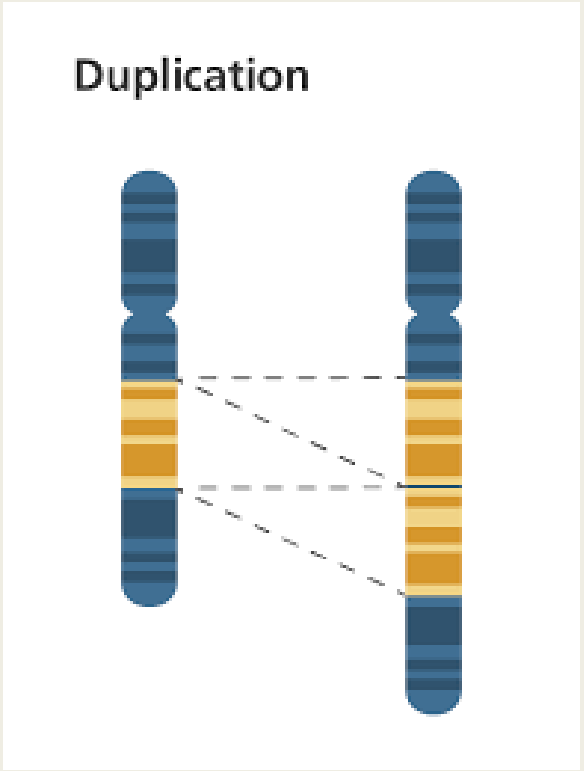


UNBALANCED

- pieces of chromosomes are either missing or duplicated
- effects vary greatly



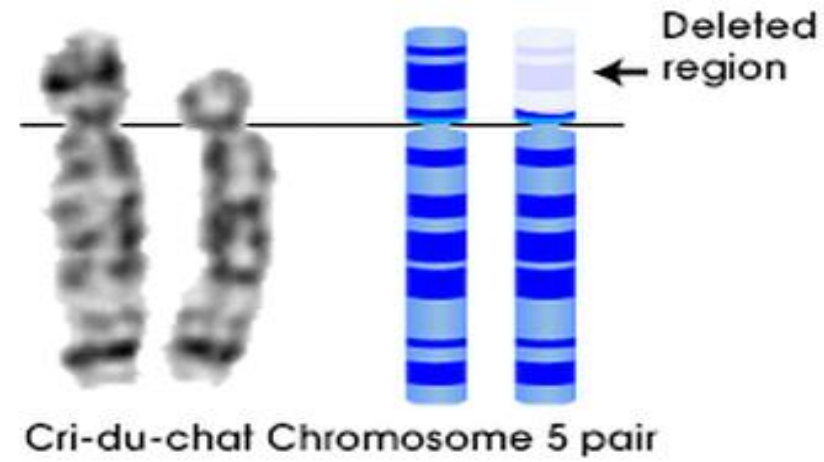
deletion: missing information



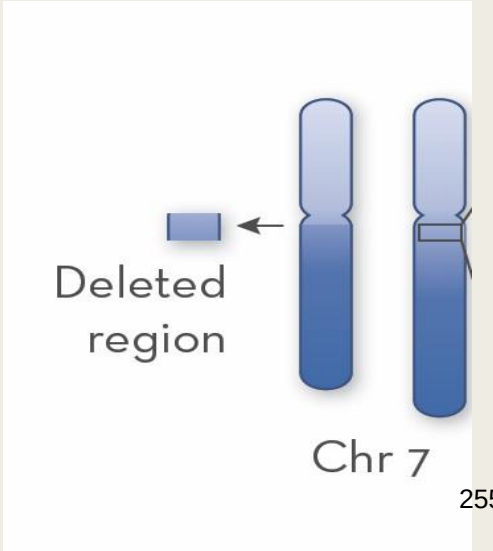
insertion: duplicated information

- **Cri-du-Chat Syndrome** – chromosome 5 deletion

  - cry of a cat
  - small head
  - round face
  - small chin
  - widely set eyes
  - folds of skin over the eyes
  - small bridge of the nose



- **Williams syndrome** – chromosome 7 deletion

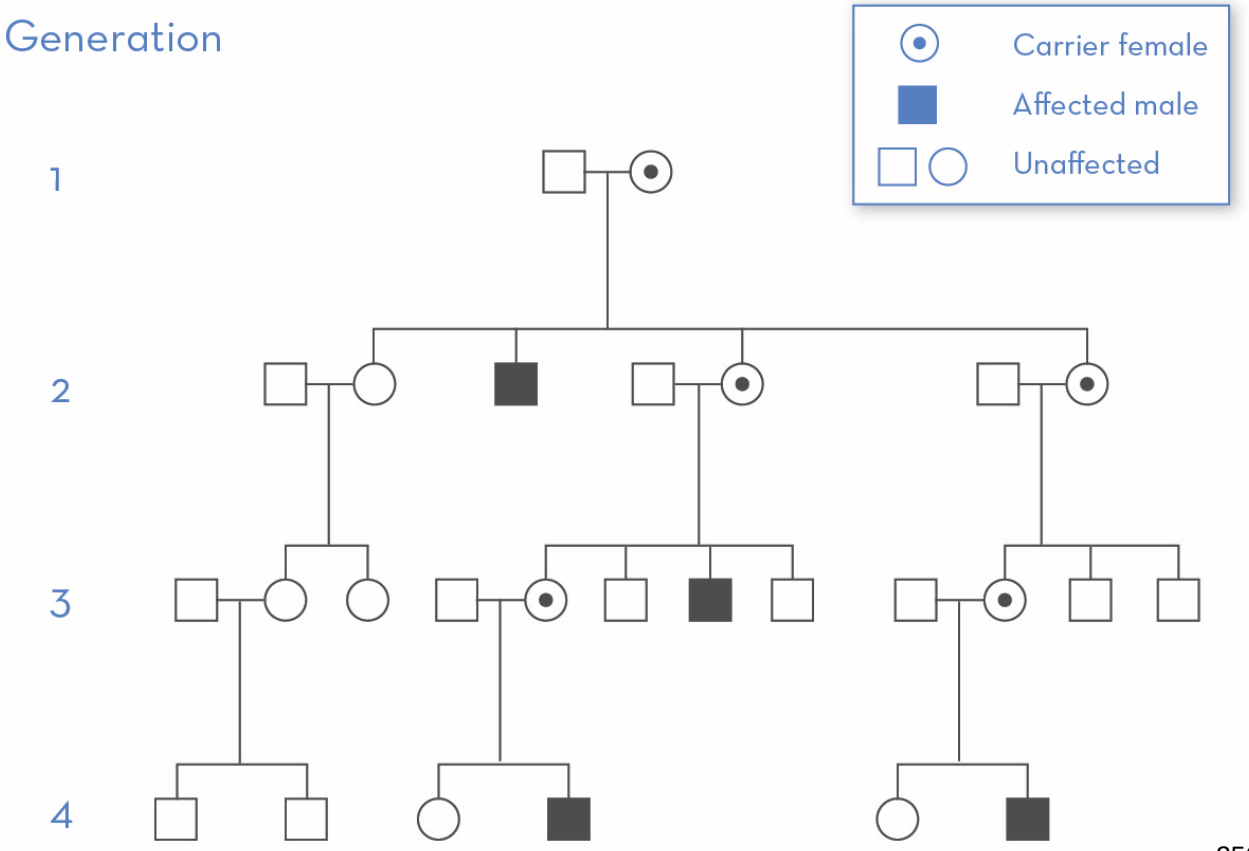


Single gene disorders

- caused by variations or mutations in the DNA sequence of a specific gene
- protein altered or missing
- can be inherited from parents
- some can “run in the family”

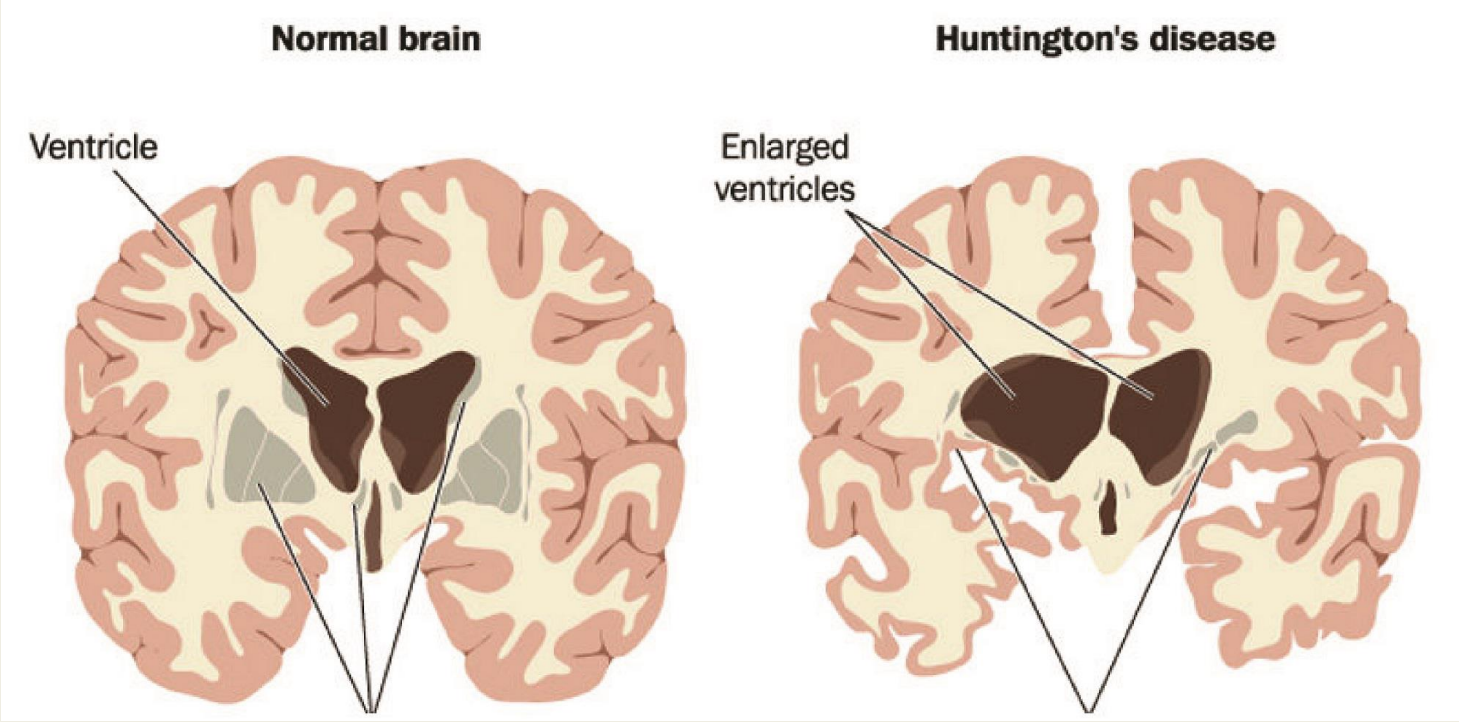
A genetic disorder’s inheritance pattern is influenced by three things:

- the type of chromosome the disease-causing gene is located on
- the job of the gene product
- how the changes to the gene affect the gene product



Example of single gene disorder

- no effects until they reach age 30
- affects a person's ability to think, talk, and move – BRAIN DISORDER



HUNTINGTON DISEASE

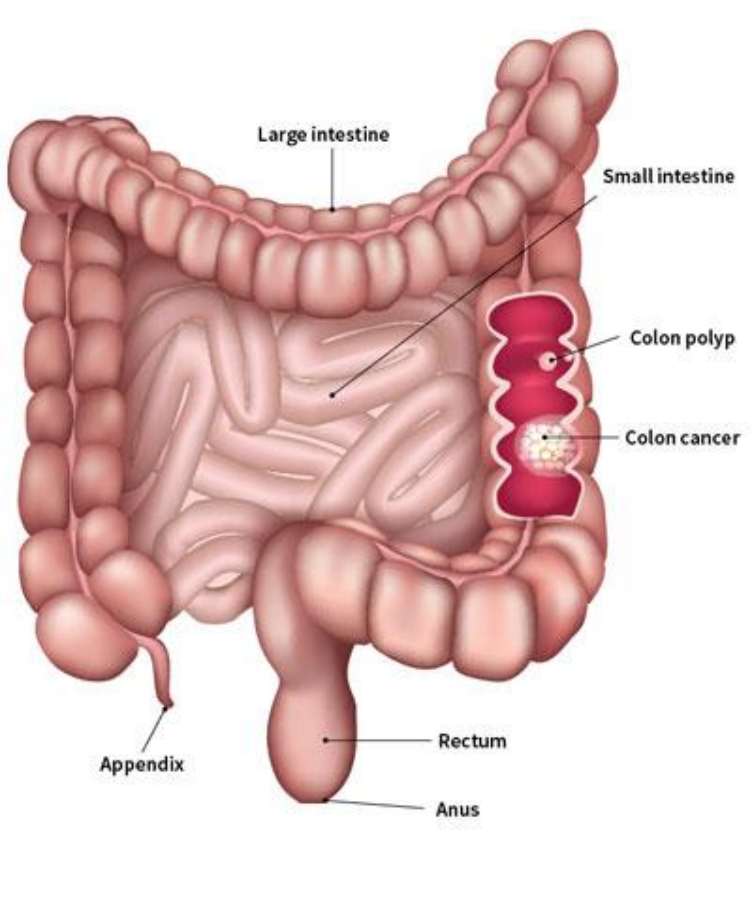
- **Symptoms:**

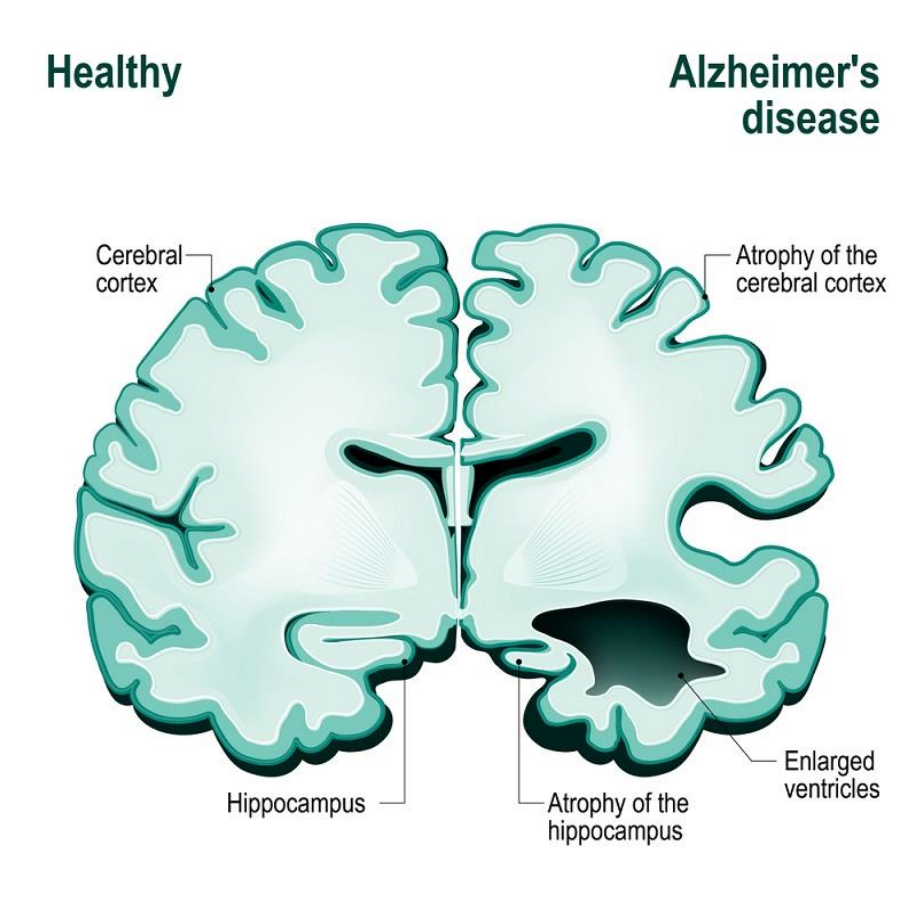
- difficulty walking, speaking
- lack of coordination
- mood swings
- poor memory

- **Medications ease feelings of depression and anxiety; others control involuntary movements**

Multifactorial disorders

- variations in multiple genes
- in combination with lifestyle and environmental factors
- tend to "run in families", but the inheritance does not fit simple patterns





EXAMPLES OF MULTIFACTORIAL DISORDERS

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- https://learn.genetics.utah.edu/content/disorders/
- Google images

THANK YOU!

"Victor Babes" University of Medicine and Pharmacy Timisoara, Romania

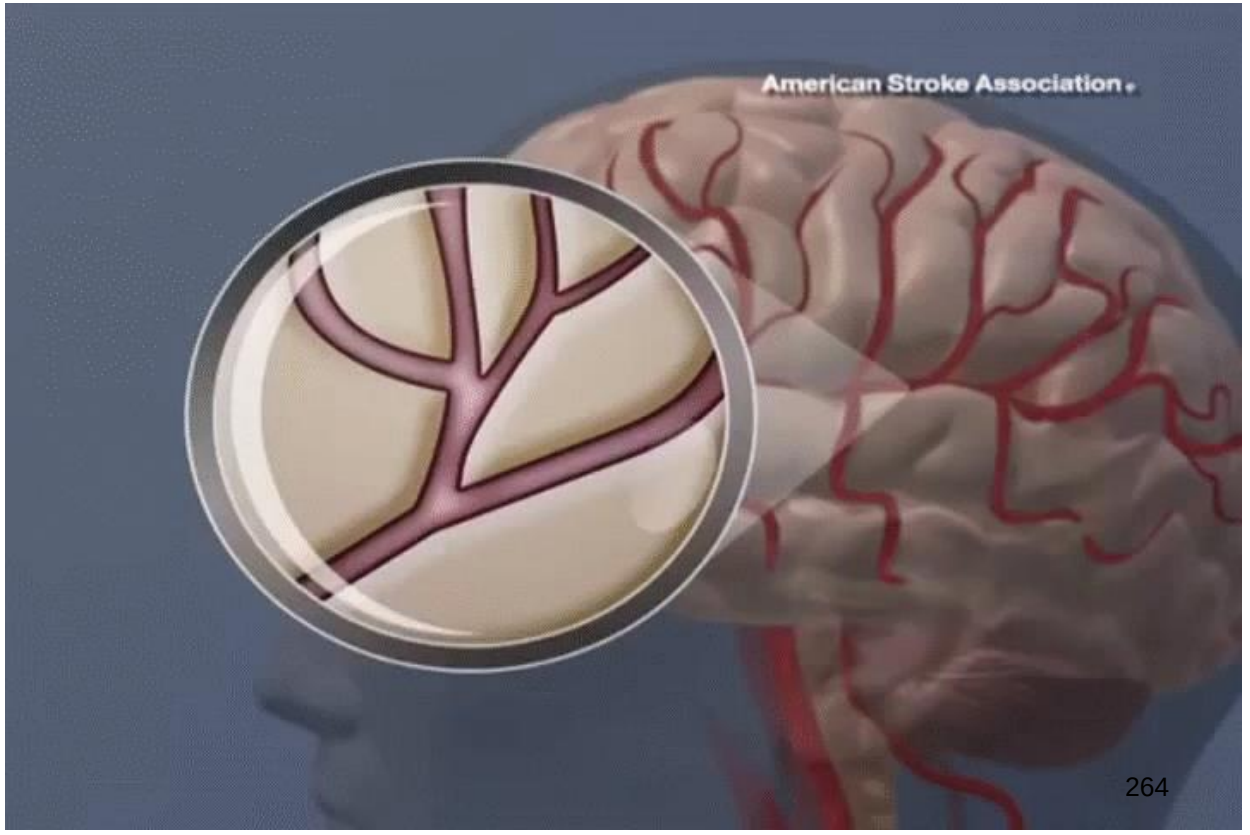
Cerebrovascular accident

DENISA ADINA CIUPERTEA

What is it?

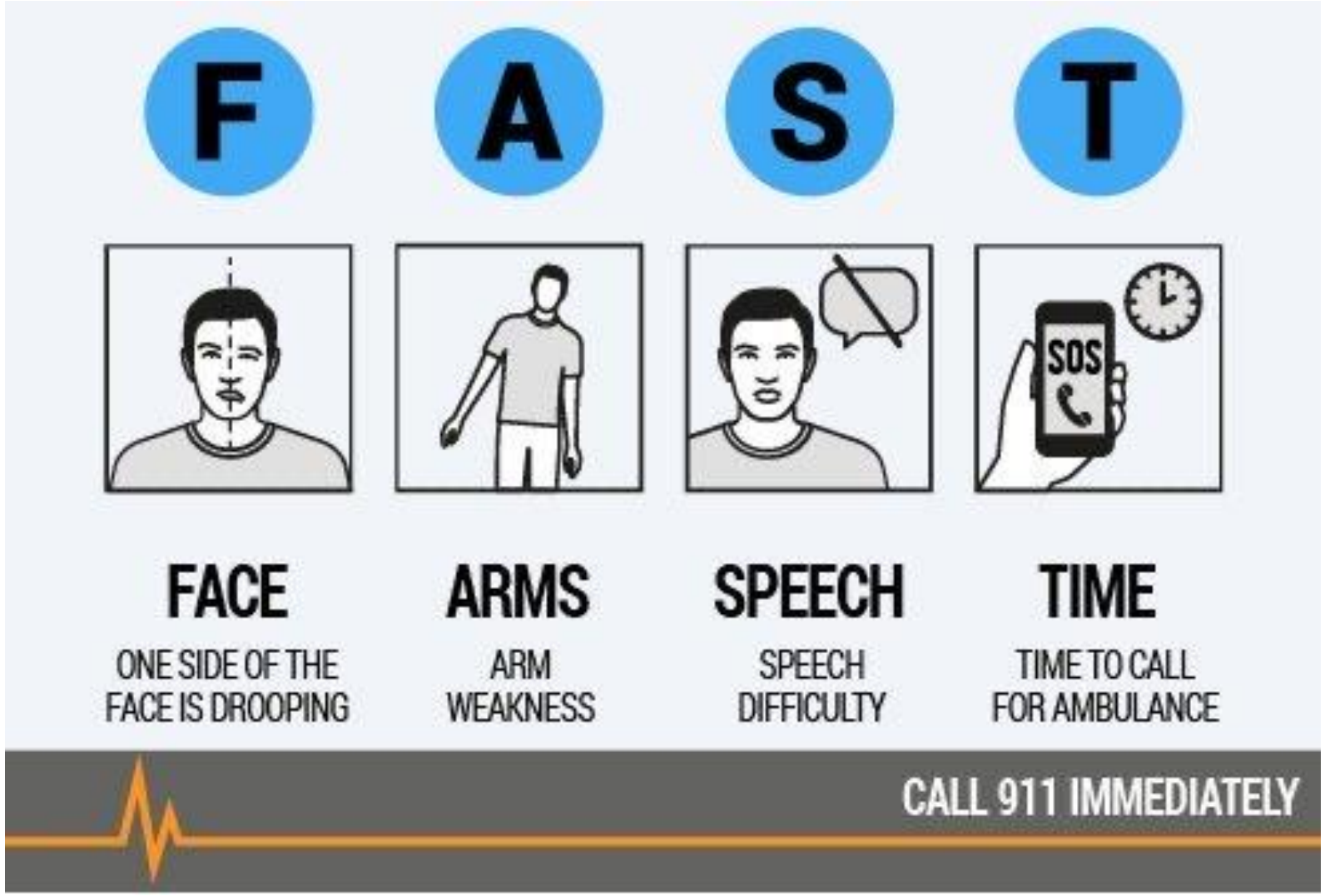
- blockage or rupture of an artery to the brain – blood flow to the brain is impaired – lack of oxygen – sudden death of some brain cells

- = STROKE

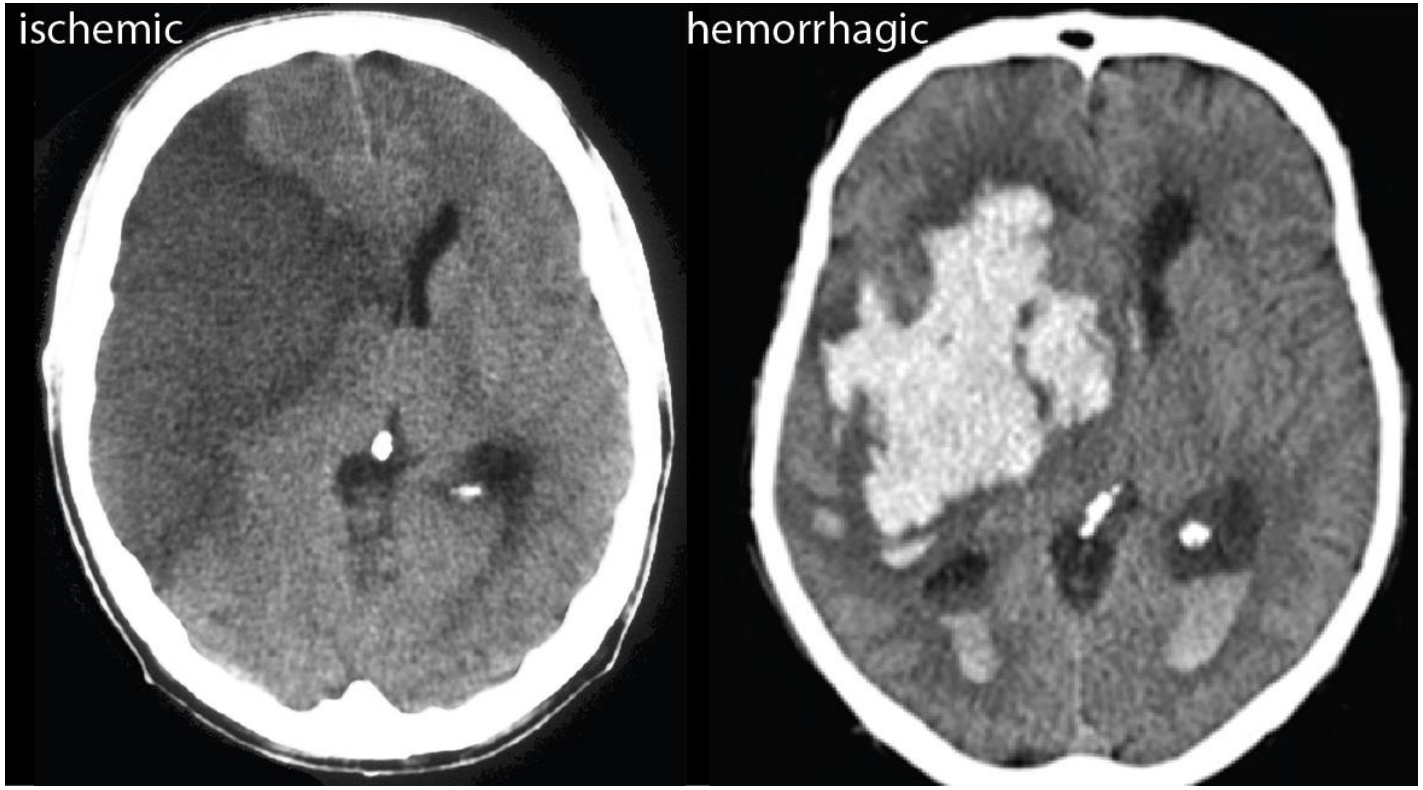


Any warning signs?

FAST – remember it!



2 types of CVA



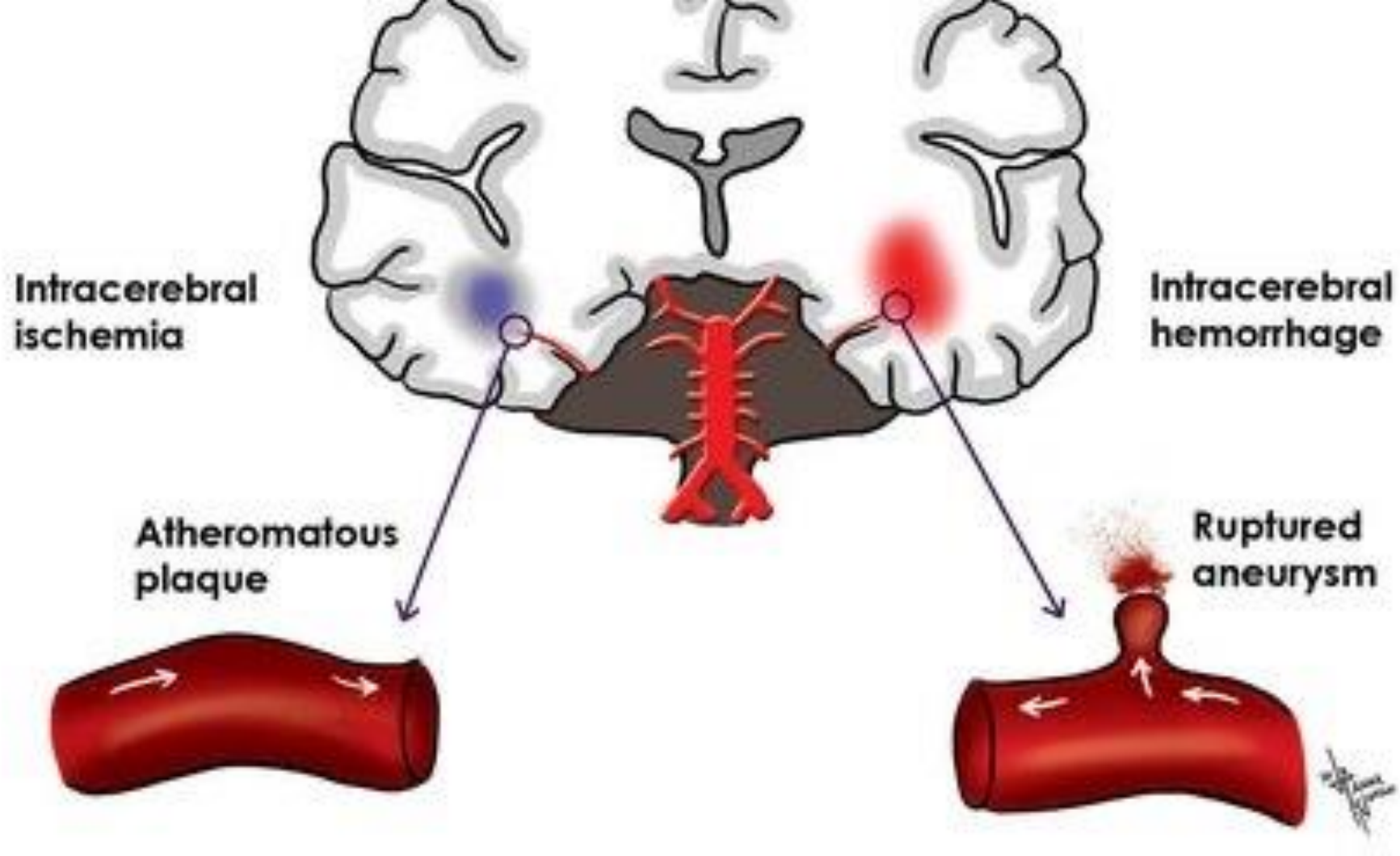
- Ischemic – the most common

- a blood clot blocks a vessel

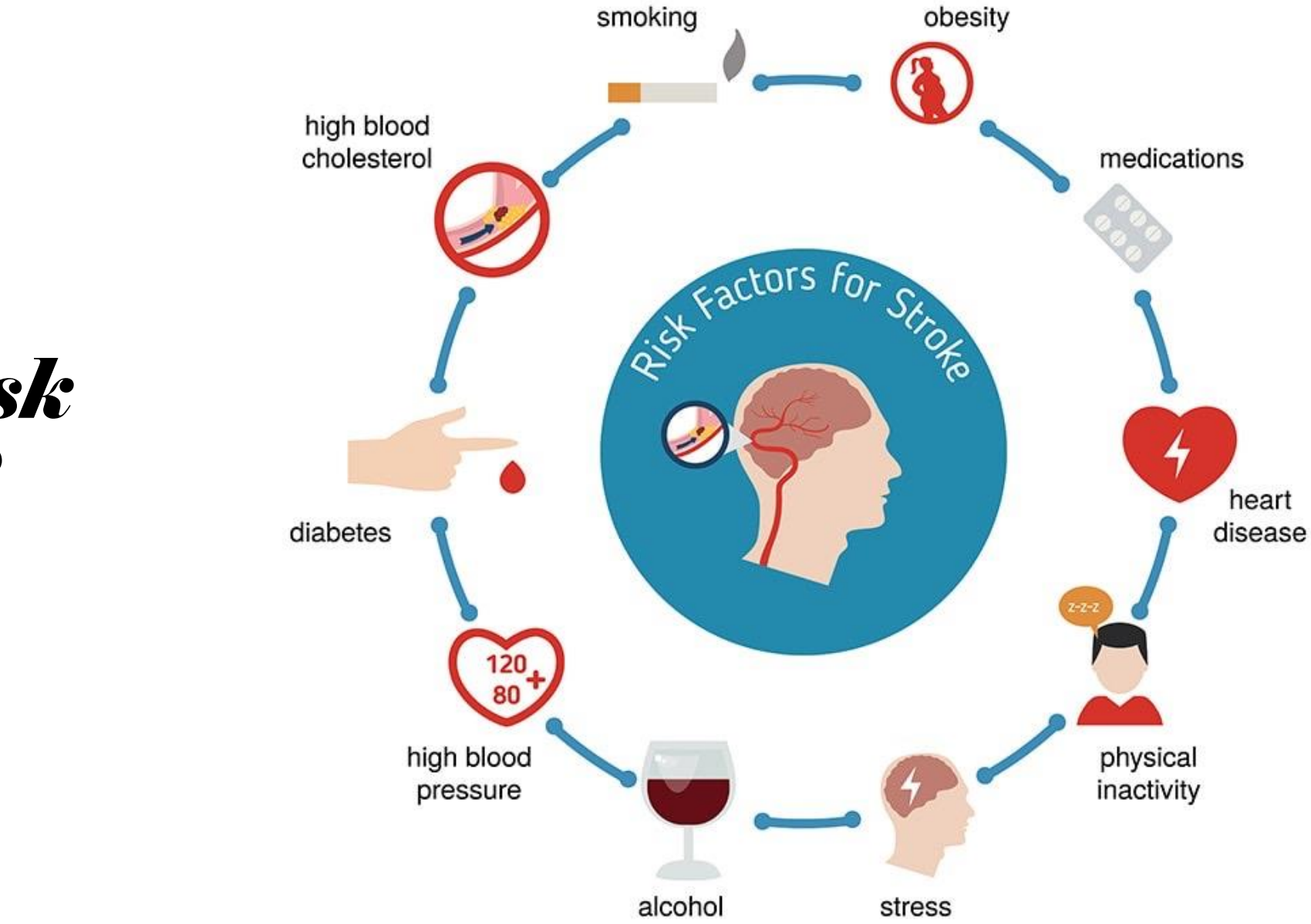
- 2 ways: embolic stroke or thrombotic stroke

- Hemorrhagic

- a blood vessel ruptures and prevents blood from getting to a part of the brain


Intracerebral ischemia
Intracerebral hemorrhage
Atheromatous plaque
Ruptured aneurysm
Ischemic stroke
(obstruction of blood flow to part of the brain)
Hemorrhagic stroke
(bleeding into the cerebral parenchyma)

Who is at risk for a stroke?



Can strokes be prevented? How?

- physical exam
- blood tests
- CT scan
- MRI scan
- cerebral angiogram

Diagnosis

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- https://www.ncbi.nlm.nih.gov/books/NBK430927/
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Childhood Obesity

Adrian Codoș

Simona-Larisa Copce

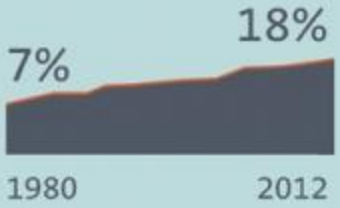
- Childhood obesity is one of the most serious public health challenges of the 21st century.
- Overweight and obese children are likely to stay obese into adulthood and more likely to develop noncommunicable diseases like diabetes and cardiovascular diseases at a younger age. Overweight and obesity, as well as their related diseases, are largely preventable.
- **Prevention of childhood obesity should be a priority.**

CHILDHOOD OBESITY

one of the most serious public health challenges of the 21st century

In the US
one out of five
children is obese

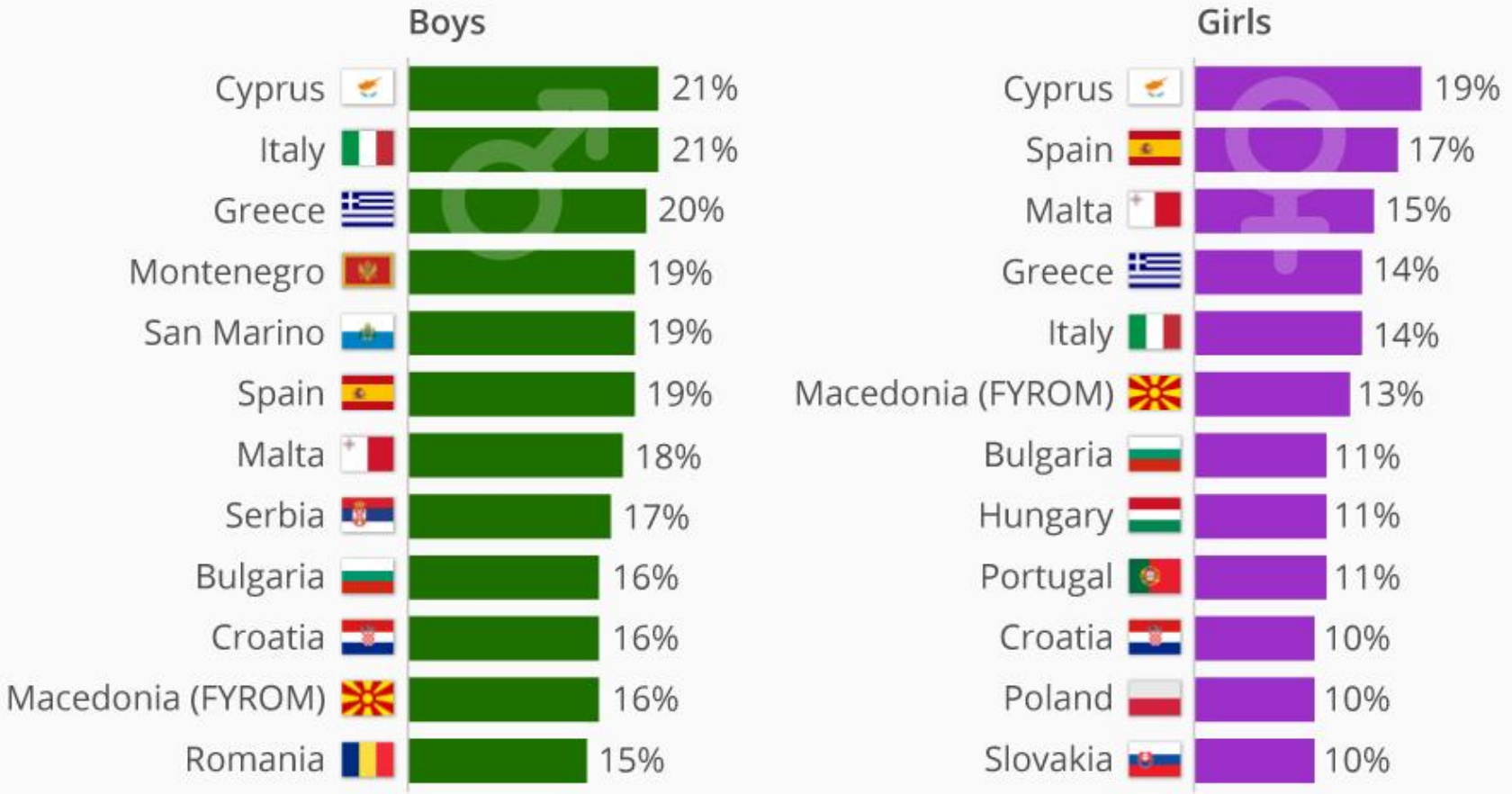
The US has some of the
highest childhood
obesity rates in the world

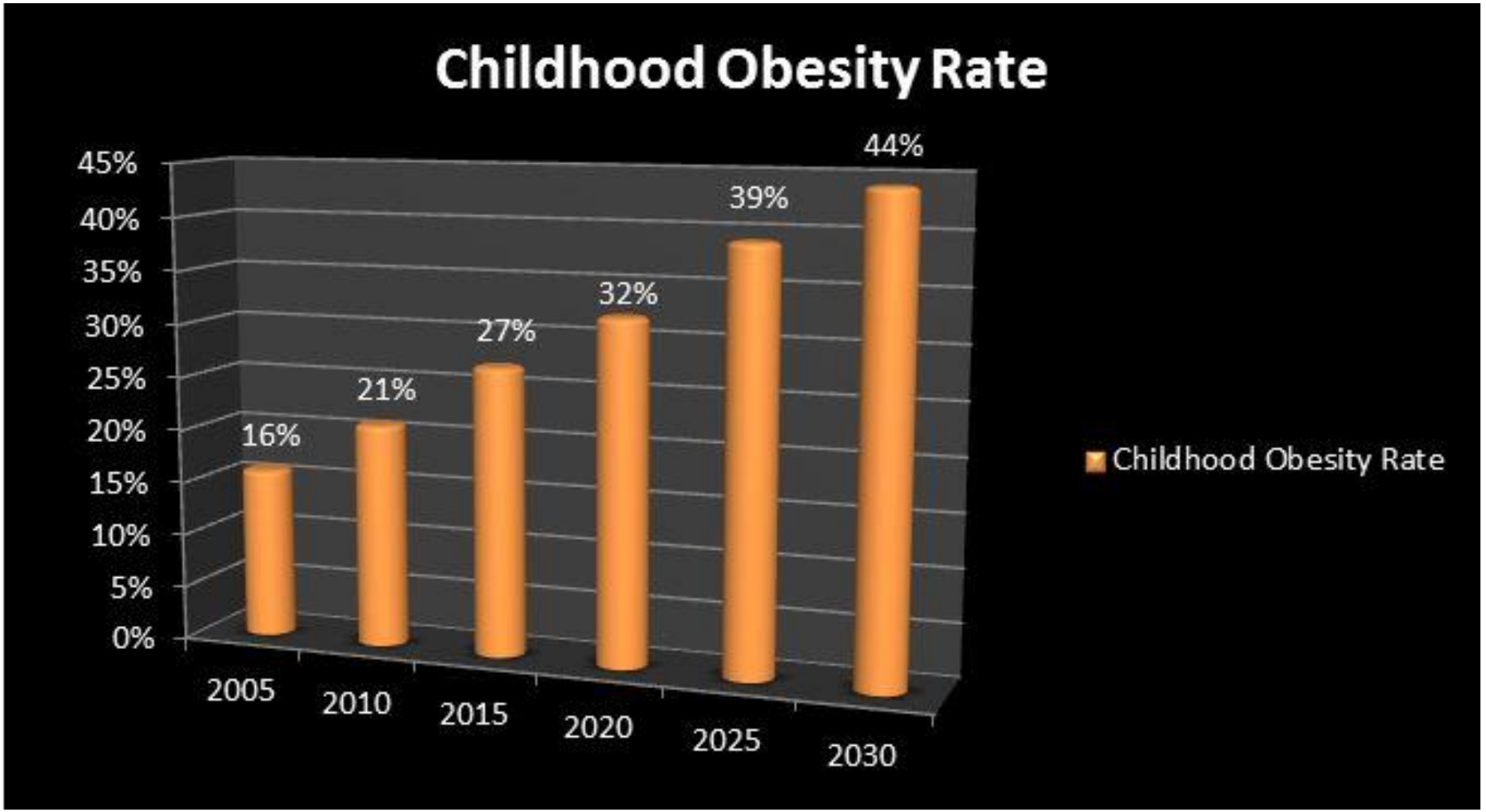


US childhood obesity
has more than doubled
in the last 30 years

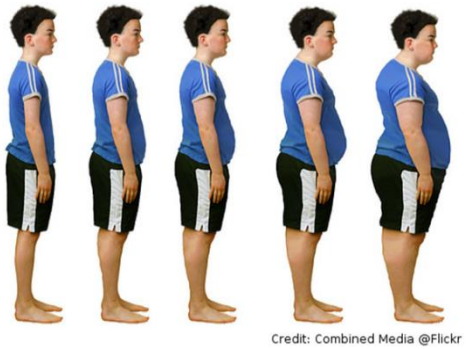
Where childhood obesity is most prevalent in Europe

Share of 6 to 9 year olds considered obese in European countries (2015-2017)*




Childhood Obesity Rate
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
16%
21%
27%
32%
39%
44%
2005
2010
2015
2020
2025
2030
Childhood Obesity Rate

What is CHILDHOOD OBESITY?



Credit: Combined Media @Flickr

$$BMI = \frac{Weight(kg)}{Height(m)^2}$$

BMI classification	
Underweight	<18.5
Normal range	18.5 – 24.9
Overweight:	>=25.0
Preobese	*25.0 – 29.9*
Obese:	>=30.0
Obese class I	*30.0 – 34.9*
Obese class II	*35.0 – 39.9*
Obese class III	*>=40.0*

Consequences of obesity

More immediate health risks:

- High blood pressure
- High cholesterol
- Increased risk of impaired glucose tolerance
- Insulin resistance
- Type 2 diabetes
- Breathing problems: asthma, sleep apnoea
- Joint problems
- Fatty liver disease, gallstones, gastro-oesophageal reflux

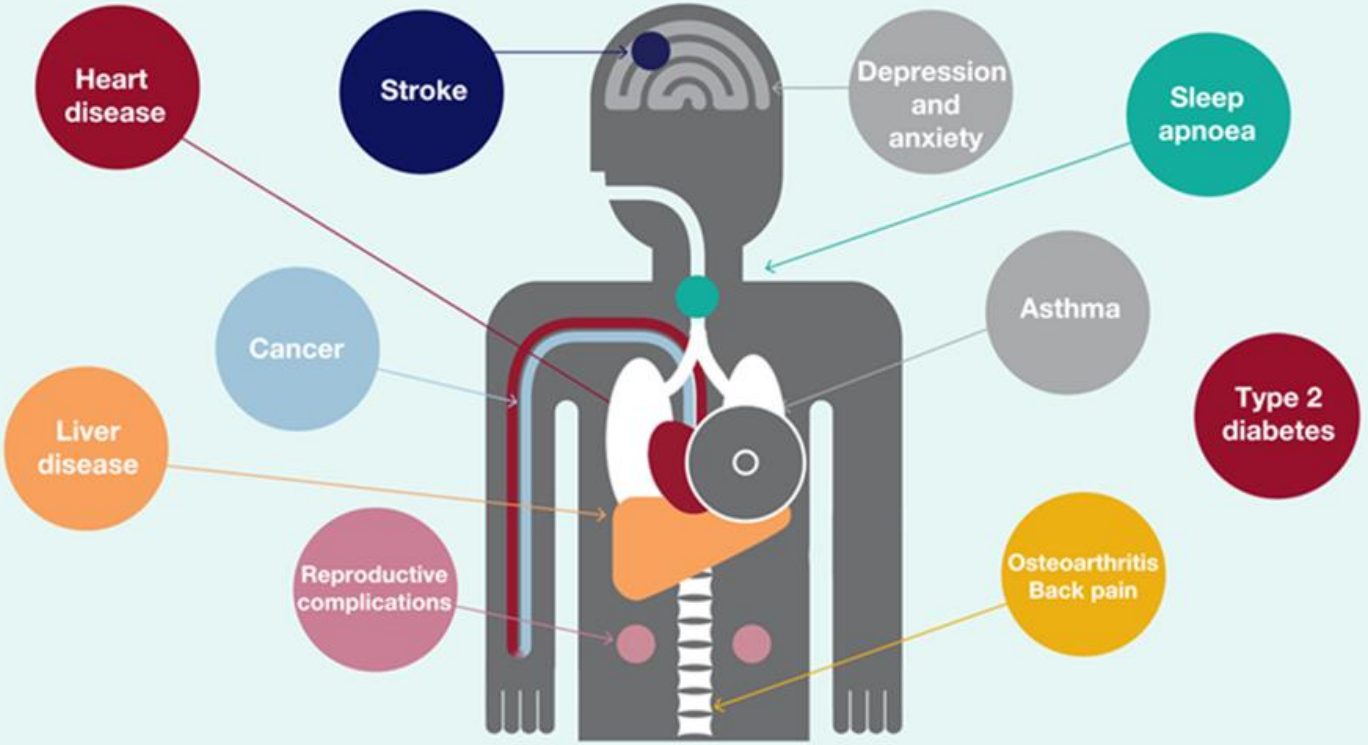
Childhood obesity is also related to:

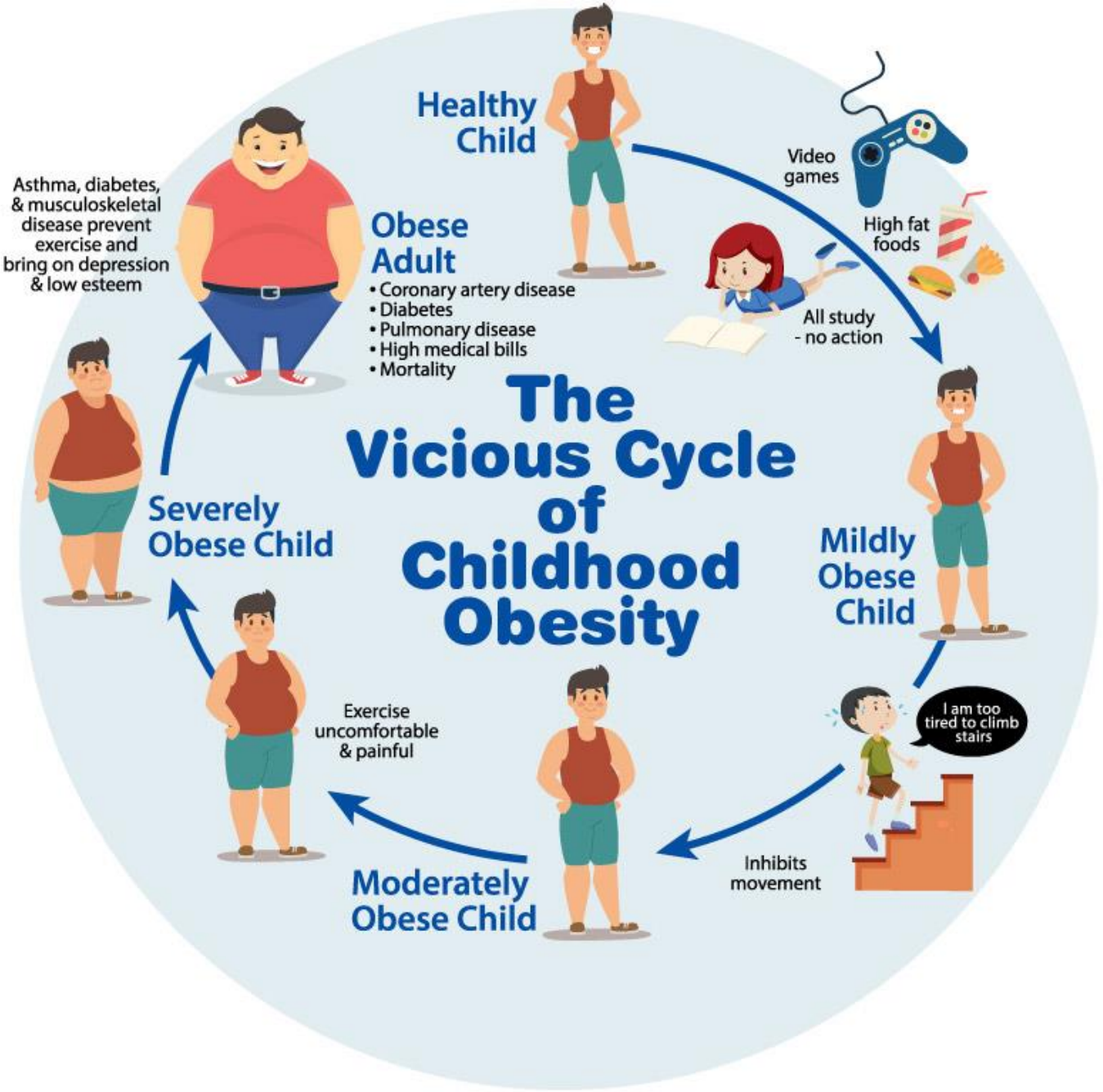
- ✓ Psychological problems such as anxiety and depression
- ✓ Low self-esteem and lower self-reported quality of life
- ✓ Social problems such as bullying and stigma

Future health risks:

- Children who have obesity are more likely to become adults with increased risk of a number of serious health conditions including heart disease, type 2 diabetes, and cancer.

Obesity harms health




Healthy Child
Video games
High fat foods
All study - no action
Mildly Obese Child
I am too tired to climb stairs
Inhibits movement
Moderately Obese Child
Exercise uncomfortable & painful
Severely Obese Child
Asthma, diabetes, & musculoskeletal disease prevent exercise and bring on depression & low esteem
Obese Adult
• Coronary artery disease
• Diabetes
• Pulmonary disease
• High medical bills
• Mortality
The Vicious Cycle of Childhood Obesity

CAUSES &FACTORS


SCHOOL BUS

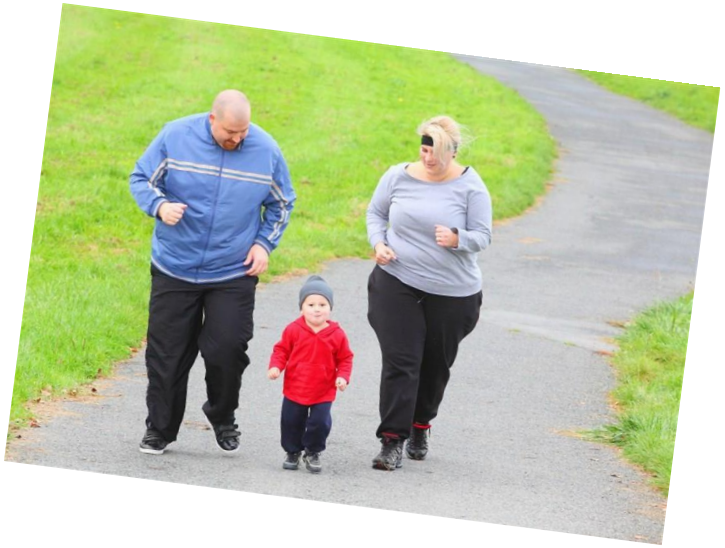

Try it!
FAST FOOD
Lorem Ipsum
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer rhoncus venenatis ante non iaculis. Sed fringilla luctus justo, et mattis enim varius sodales. Phasellus sagittis, est non euismod accumsan, est risus euismod quam, nec pretium augue nunc at massa. Cras fringilla magna at nisi volutpat, et aliquam quam cursus. Vivamus et libero nec magna interdum imperdiet vitae nec dolor. Aenean a ante nec odio tempus condimentum. Vivamus nec magna non sem vehicula sagittis
BON APPETIT!

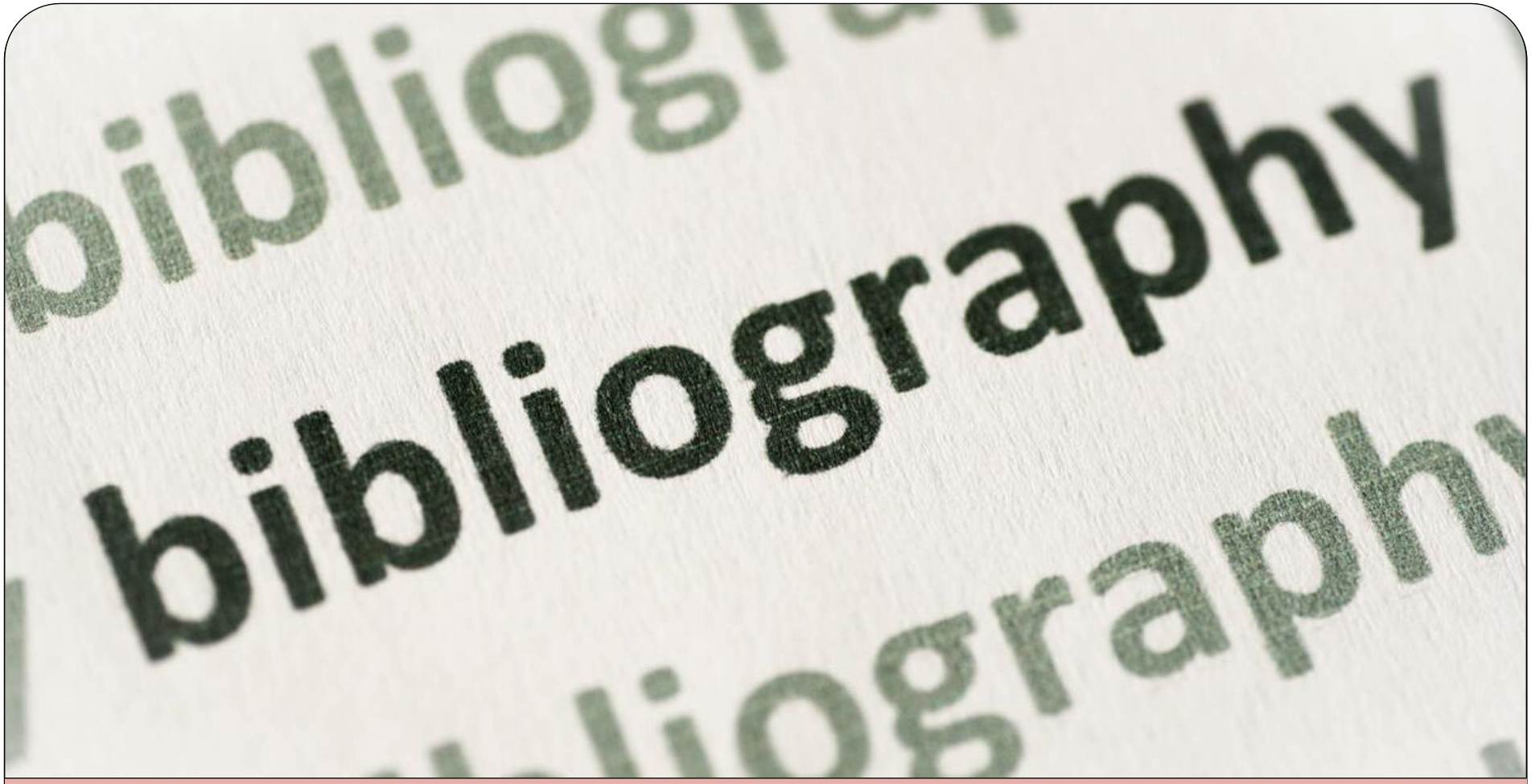
What can be done?

General recommendations:

- increase consumption of fruit and vegetables, as well as legumes, whole grains and nuts;
- limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats;
- limit the intake of sugars; and
- be physically active.

STOP CHILDHOOD OBESITY





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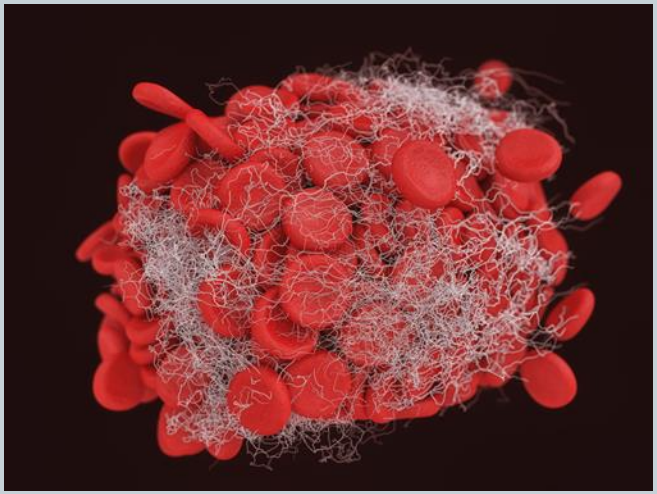
- https://www.mayoclinic.org/diseases-conditions/childhood-obesity/symptoms-causes/syc-20354827
- https://www.statista.com/chart/17839/childhood-obesity-rates-europe-who/
- https://www.youtube.com/watch?v=9e-a9sSlXsw
- https://www.youtube.com/watch?v=xUmp67YDlHY

THANK YOU !

Von Willebrand Disease

SIMONA-LARISA COPCE
ADRIAN CODOŞ



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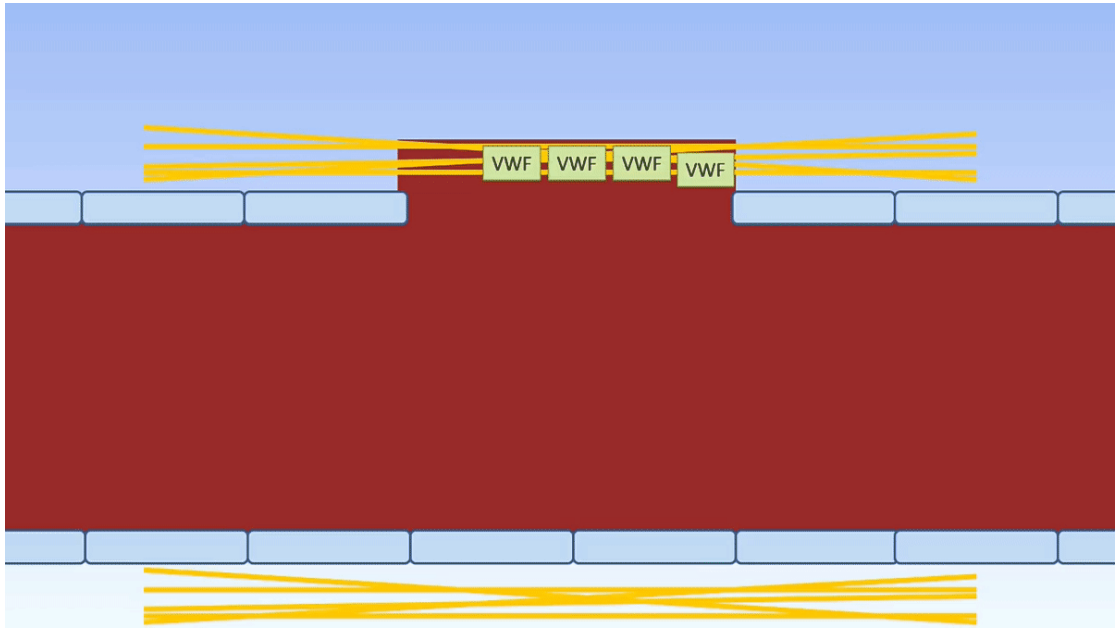
What is Von Willebrand Disease?

Von Willebrand disease (VWD) is a blood disorder in which the blood does not clot properly. Blood contains many proteins that help the body stop bleeding. One of these proteins is called von Willebrand factor (VWF). People with VWD either have a low level of VWF in their blood or the VWF protein doesn't work the way it should.



Signs and Symptoms

- Frequent or hard-to-stop nosebleeds:
  - Start without injury (spontaneous)
  - Occur often, usually five times or more in a year
  - Last more than 10 minutes
  - Need packing or cautery to stop the bleeding

- Easy bruising
  - Occurs with very little or no trauma or injury
  - Occurs often (one to four times a month)
  - Is larger than the size of a quarter
  - Is not flat and has a raised lump

- Heavy menstrual bleeding

- Longer than normal bleeding after injury, surgery, childbirth, or dental work

- Blood in the stool (feces) from bleeding into the stomach or intestines
- Blood in the urine from bleeding into the kidneys or bladder

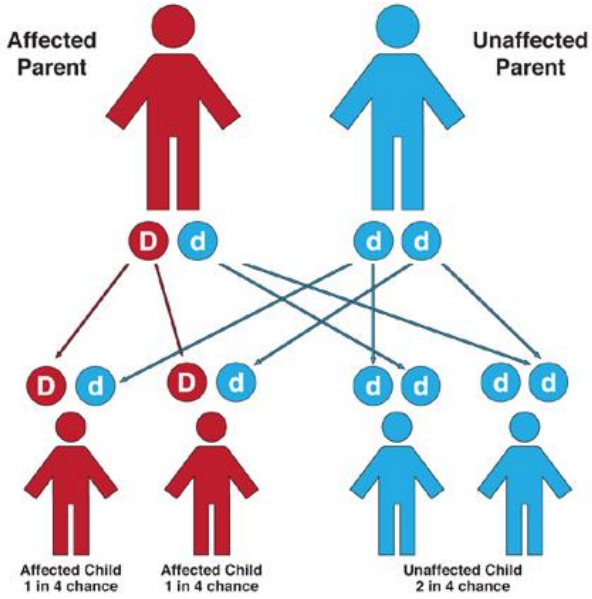
Diagnosis

- Some people may have VWD for years and never know it. That's because they don't have symptoms or their symptoms are so mild they're **easily overlooked**.
- To find out if a person has VWD, the doctor will ask questions about personal and family histories of bleeding. The doctor will also check for unusual bruising or other signs of recent bleeding and order some blood tests that will measure how the blood clots.

Risk Factors/Causes

- Most people who have VWD are born with it. It is almost always inherited, or passed down from a parent to a child. VWD can be passed down from either the mother or the father, or both, to the child.

- While rare, it is possible for a person to get VWD without a family history of the disease. This happens when a "spontaneous mutation" occurs. That means there has been a change in the person's gene.



Complications

- **Anaemia**. Women who have heavy menstrual bleeding can develop iron deficiency anaemia.
- **Swelling and pain**. This can be a result of abnormal bleeding in the joints or soft tissue.

Treatment

The most commonly used types of treatment are:

- **Desmopressin acetate injection**
- **Desmopressin acetate nasal spray**
- **Factor replacement therapy**
- **Antifibrinolytic drugs**
- **Birth control pills**

Bibliography

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Thank you!

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REDUPLICATIVE PARAMNESIA

Ana-Maria Codrean
Flavia-Maria Căpăstraru

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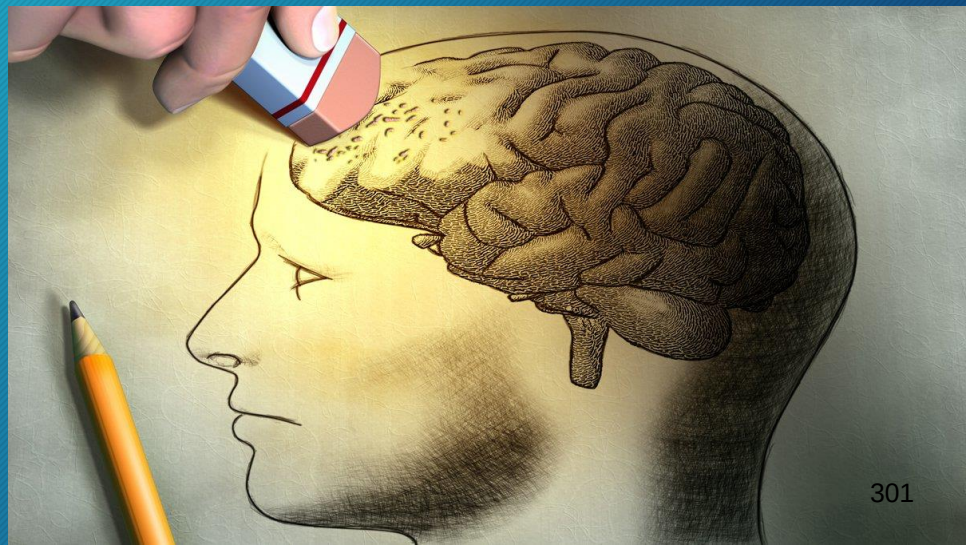


1. WHAT IS REDUPLICATIVE PARAMNESIA?

- Reduplicative paramnesia is the delusional belief that a place or location has been duplicated, existing in two or more places simultaneously.
- It is most commonly associated with acquired brain injury, particularly simultaneous damage to the right cerebral hemisphere and to both frontal lobes.

2. SHORT HISTORY

- The term reduplicative paramnesia was first used in 1903 by the psychiatrist Arnold Pick to describe a condition in a patient with suspected Alzheimer's disease who insisted that she had been moved from Pick's city clinic to one she claimed looked identical but was in a familiar suburb.

- In retrospect, the phenomenon has been found to have been first reported by the Swiss naturalist Charles Bonnet in 1788.

3. EPIDEMIOLOGY

- There is currently no epidemiology data regarding RP.

- This reflects the general paucity of epidemiological estimate of all DMS with tentative figures reported based on retrospective reviews and single case studies.

4. SIGNS AND SYMPTOMS

- Patients with RP are able to recognise familiar places or landmarks adequately, but appear to have difficulty orienting the location of these places in relation to the self accurately.

- RP patients often appear to show little concern regarding their condition and decreased foresight.

- Confabulation is also common and usually resolves relatively quickly after the initial injury.

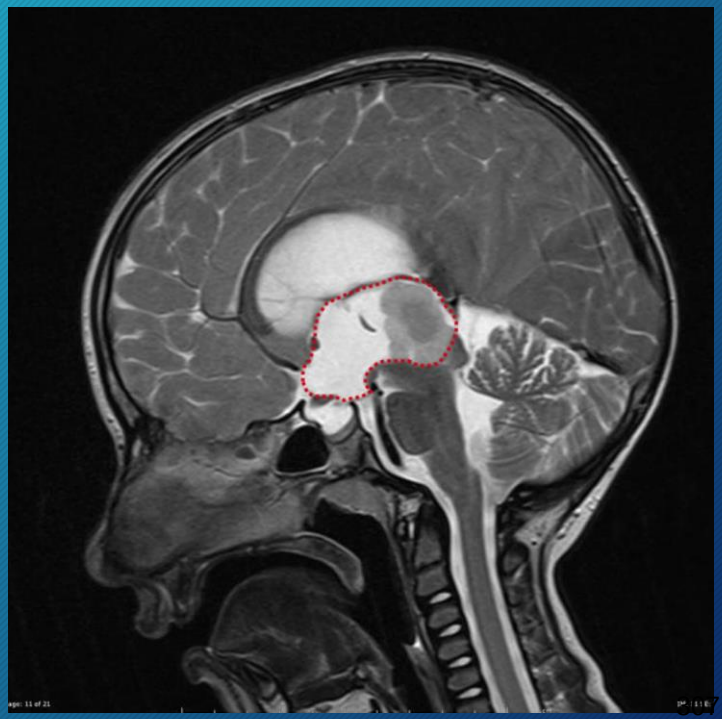
5. DIAGNOSIS

RP is reported to occur following a variety of neurological conditions:

→ head trauma and cerebral infarction;

→ toxic and post-traumatic encephalopathies;

→ tumours in the third ventricle and aneurysm ruptures involving the circle of Willis.



- Other visual agnosias such **prosopagnosia** and **simultanagnosia**

→ the inability to recognise faces and objects, respectively, are less likely to be considered delusional beliefs as these patients do not insist that the person or object in question is an impostor and are existing elsewhere but simply have a failure of recognition.

6. TREATMENT

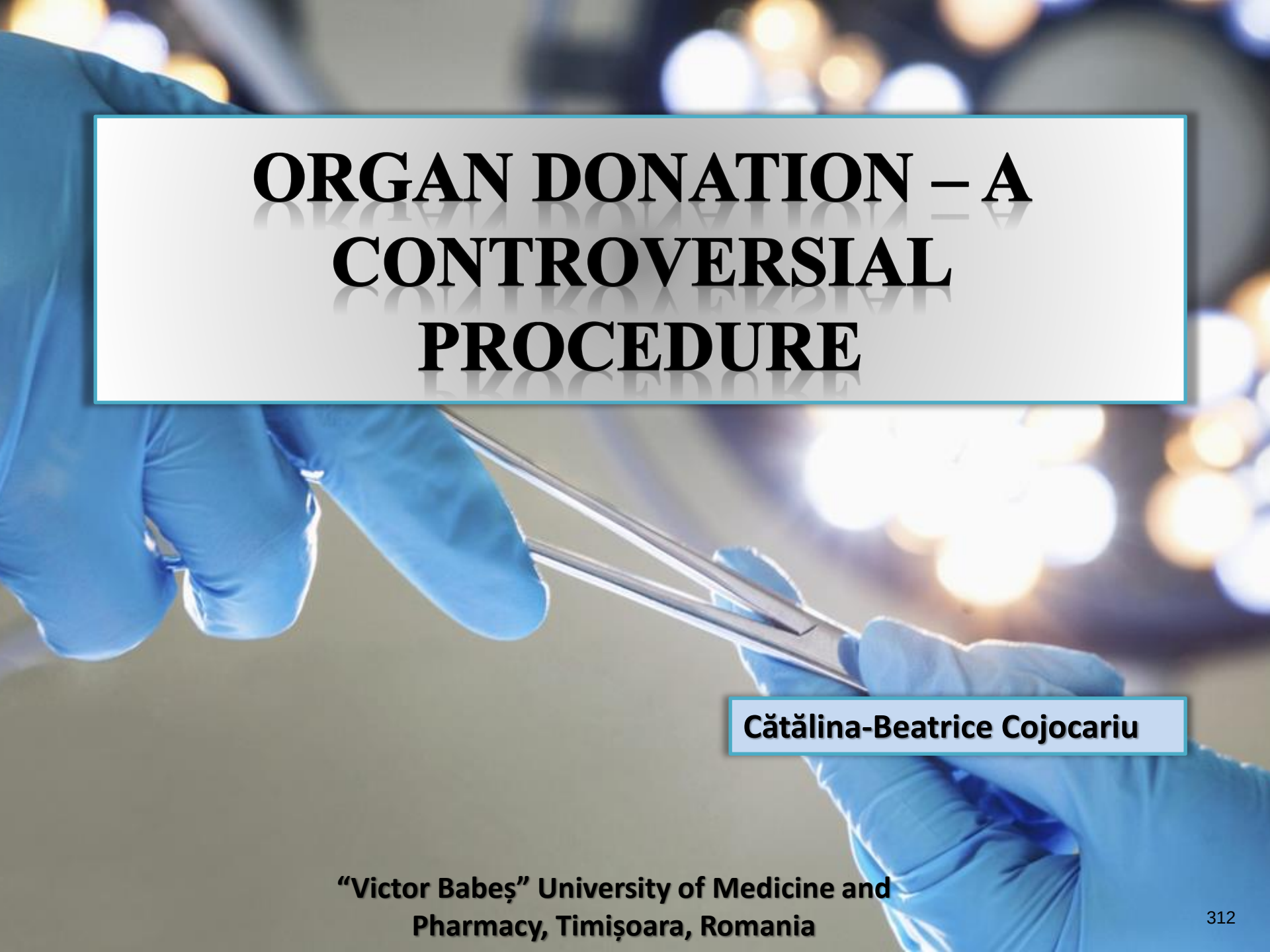
- RP often resolves spontaneously usually after a period of rehabilitation and reorientation.
- Controlled clinical trials need to be performed to identify effective treatments for these delusions.
- An immunomodulatory therapy has been shown to be effective in resolving RP for place in a case study of a 64-year-old male with the rare autoimmune disease.

7. BIBLIOGRAPHY

- https://www.karger.com/Article/Fulltext/337748
- https://en.wikipedia.org/wiki/Reduplicative_paramnesia

THANK YOU FOR YOUR ATTENTION!

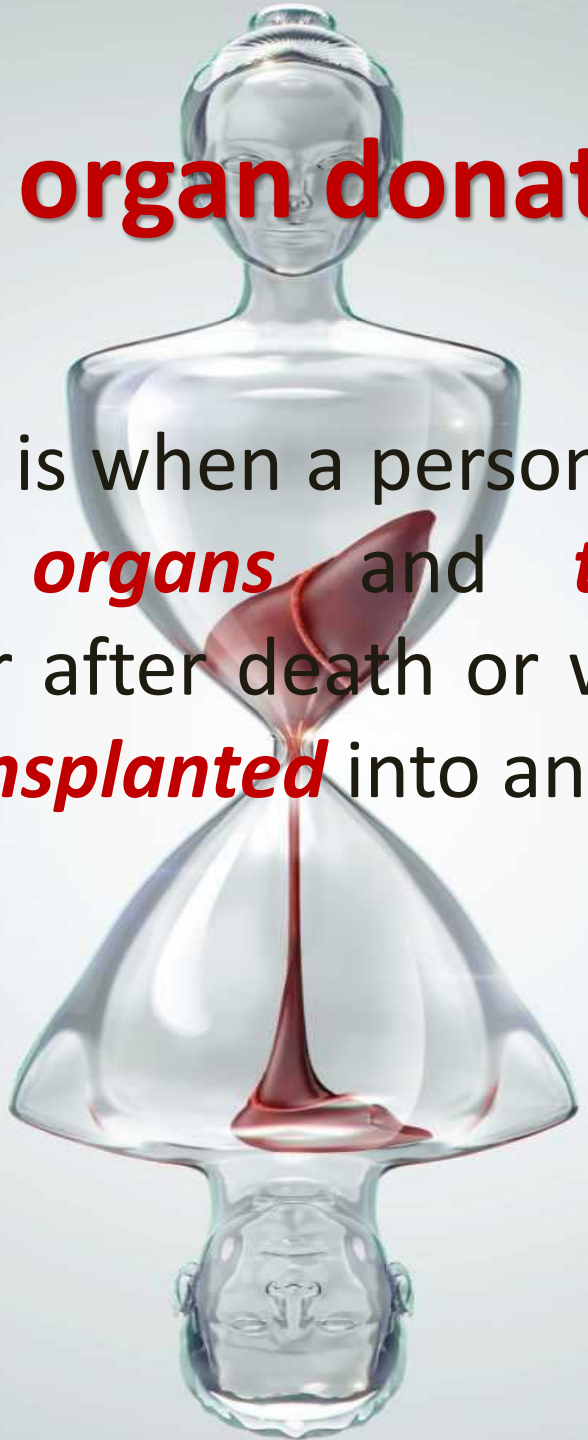
ORGAN DONATION – A CONTROVERSIAL PROCEDURE



Cătălina-Beatrice Cojocariu

“Victor Babeș” University of Medicine and Pharmacy, Timișoara, Romania

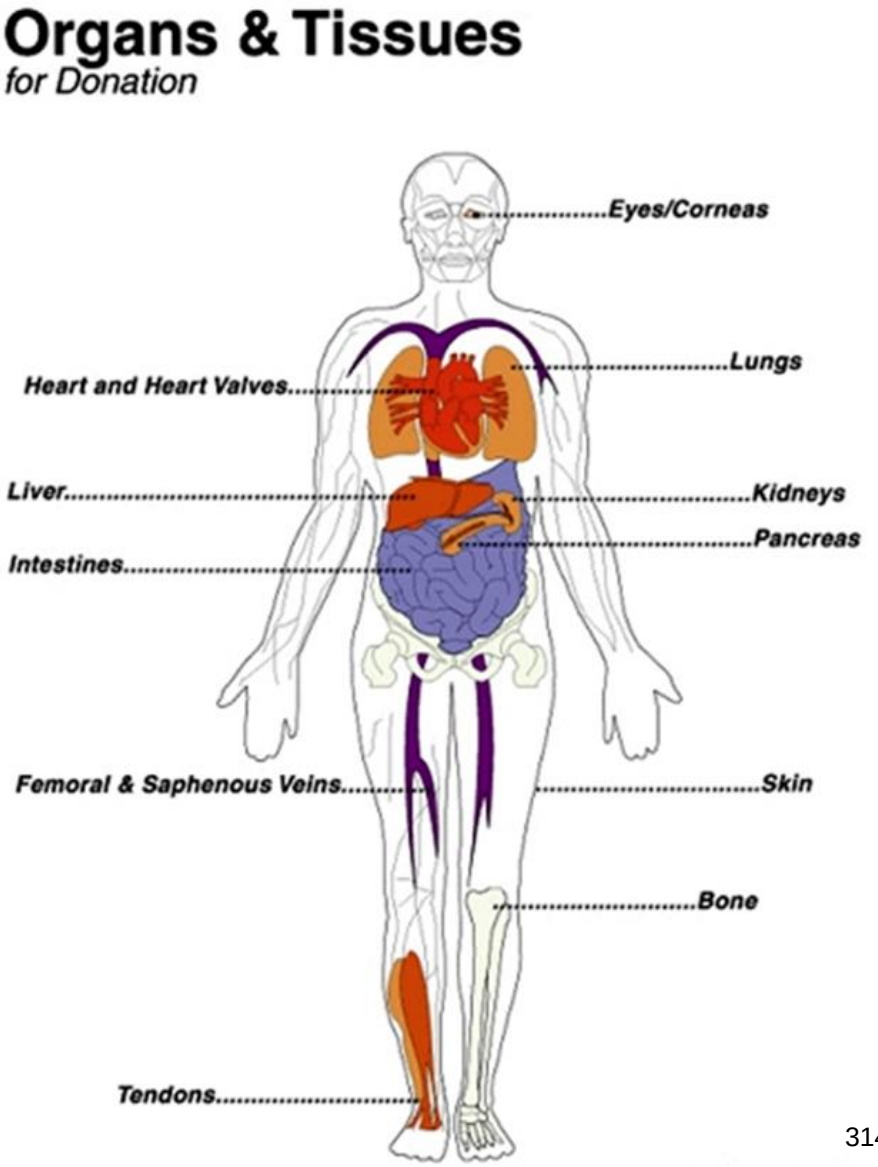
What does organ donation mean?



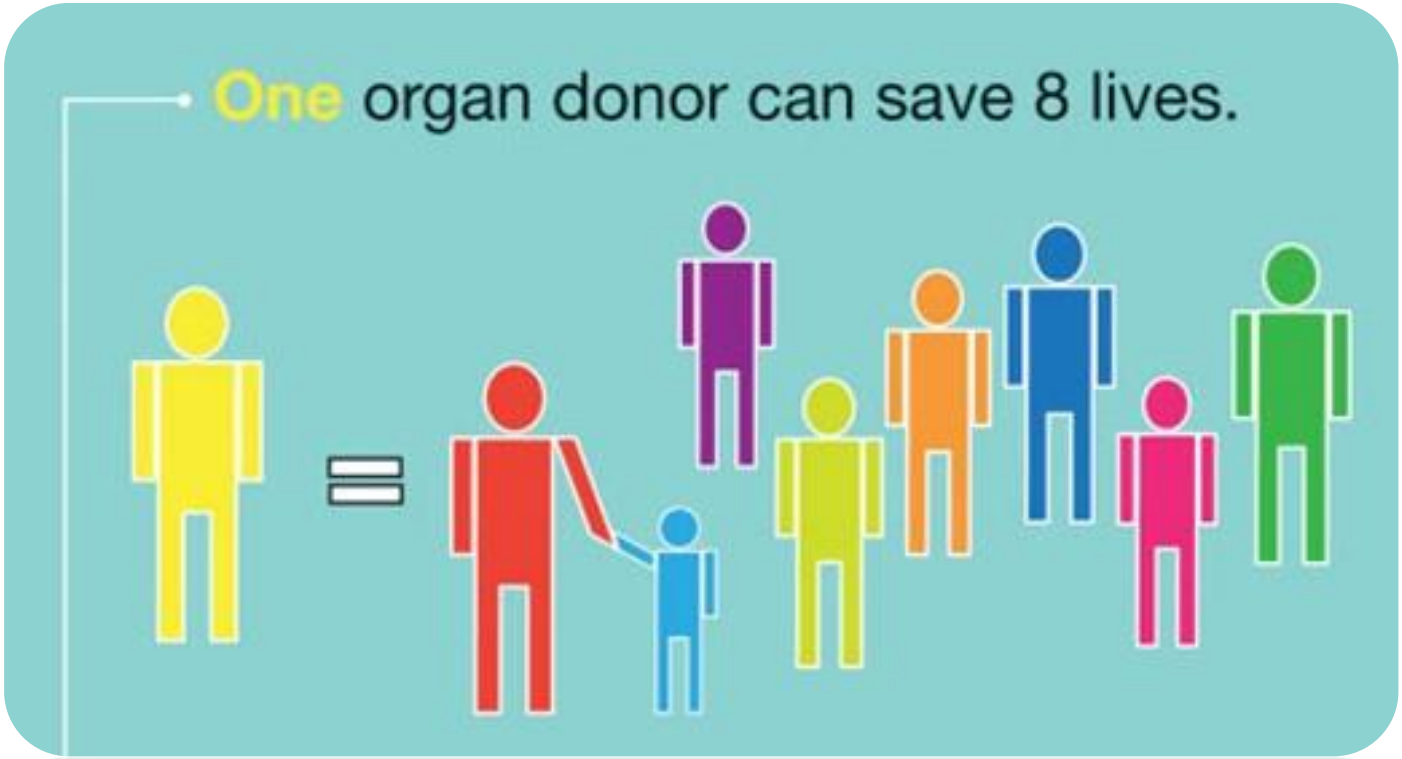
Organ donation is when a person allows ***healthy*** transplantable ***organs*** and ***tissues*** to be removed, either after death or while the donor is alive, and ***transplanted*** into another person.

Common transplantations

- kidneys
- heart
- liver
- pancreas
- intestines
- lungs
- bones
- bone marrow
- skin
- corneas

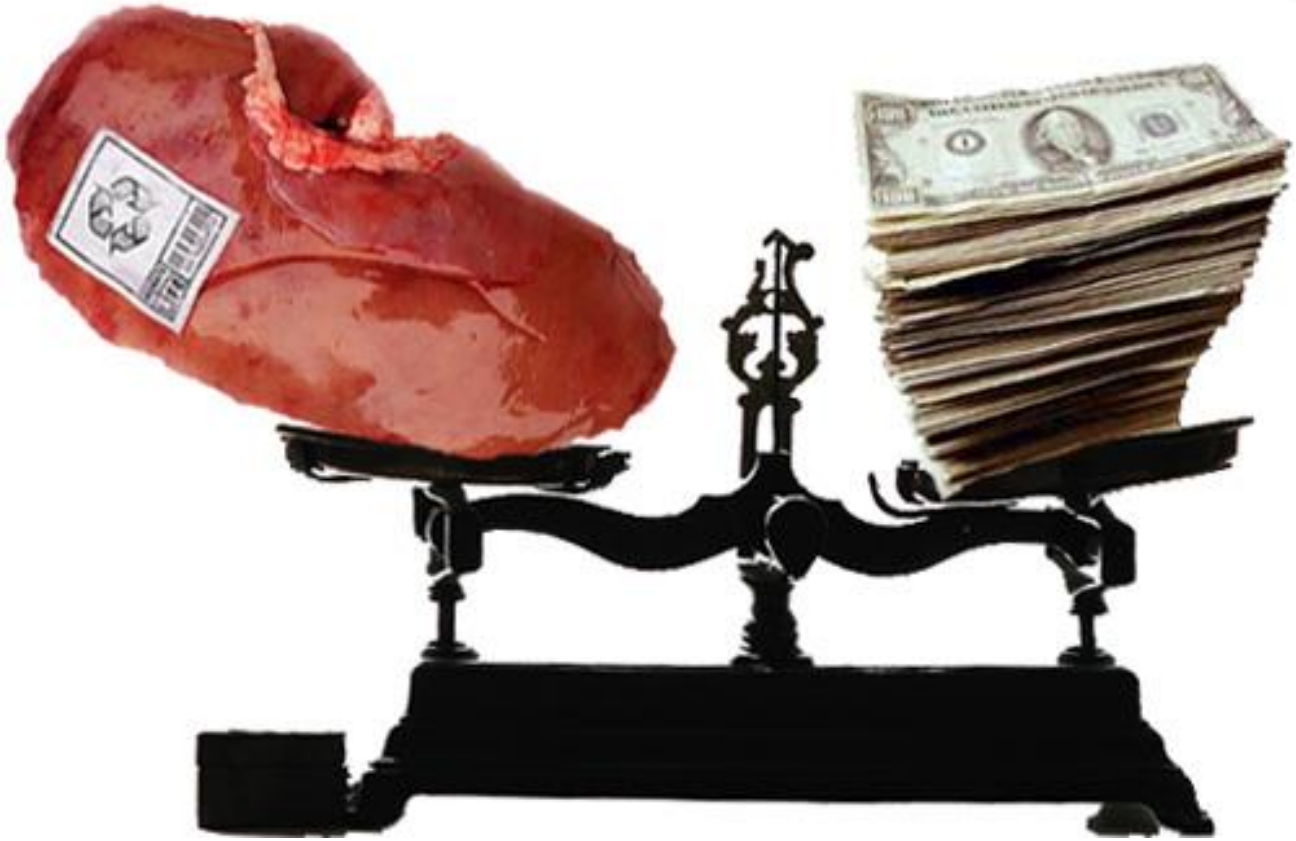


Why would you become an organ donor?



Is it *LEGAL*?

NO!



Bioethical issues

- ***Three main issues:***

➢ the fundamental morality of transplanting body parts

➢ the ethics of organ procurement

➢ the ethics of allocation

Does organ transplantation involve too much control of nature, and lead to scenarios of "***playing God***"?

Who should get the available organs, and by what ***criteria*** should this decision be made?

Religious positions on organ donation

Organ and tissue donation is considered an ***act of charity and love***, and transplants are morally and ethically acceptable to the Vatican. (**Catholicism**)

The **Christian Church *encourages*** organ and tissue donation, stating that we were created for God's glory and for ***sharing God's love.***

Donation by living donors and by deceased donors is not only permitted but ***encouraged.*** (**Islam**)

The Church of Jesus Christ of Latter-day Saints believes the donation of organs and tissues is a ***selfless act*** that often results in ***great benefit to individuals*** with medical conditions. (**Mormons**)

"We honor those people who donate their bodies and organs to the ***advancement of medical science*** and to ***saving lives***." (*Reverend Gyomay Masao Kubose*, president and founder of The **Buddhist** Temple of Chicago)

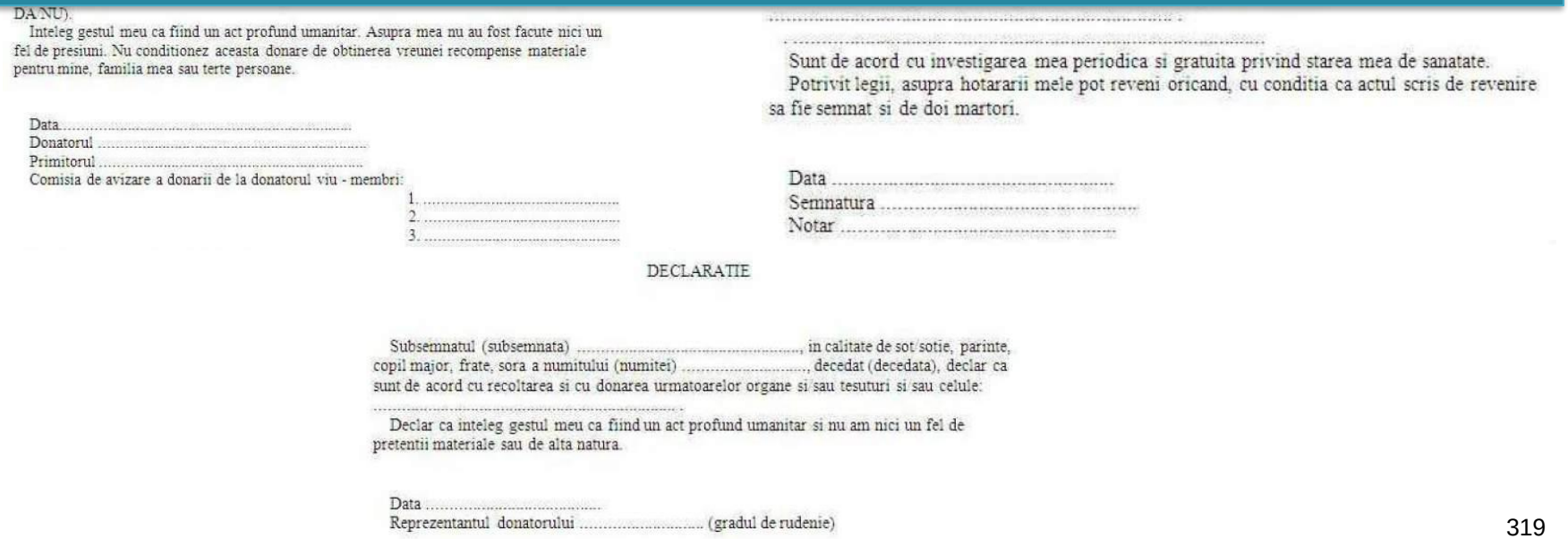
The Conservative Movement's Committee on **Jewish** Laws and Standards has stated that organ donations after death represent ***not only an act of kindness***, but are also a "commanded obligation" which ***saves human lives***.

Organ donation in Romania

- Living donor
- Post-mortem donor
- Family's decision

Personal decision

the donor declares that his/her decision to donate is an ***act of humanity***



DA/NU).
Inteleg gestul meu ca fiind un act profund umanitar. Asupra mea nu au fost facute nici un fel de presiuni. Nu conditionez aceasta donare de obtinerea vreunei recompense materiale pentru mine, familia mea sau terte persoane.

Data.....
Donatorul .....
Primitorul .....
Comisia de avizare a donarii de la donatorul viu - membri:
1. .....
2. .....
3. .....

.....
.....
Sunt de acord cu investigarea mea periodica si gratuita privind starea mea de sanatate.
Potrivit legii, asupra hotararii mele pot reveni oricand, cu conditia ca actul scris de revenire sa fie semnat si de doi martori.

Data .....
Semnatura .....
Notar .....

DECLARATIE

Subsemnatul (subsemnata) ....., in calitate de sot/sotie, parinte, copil major, frate, sora a numitului (numitei) ....., decedat (decedata), declar ca sunt de acord cu recoltarea si cu donarea urmatoarelor organe si/sau tesuturi si/sau celule:
.....
Declar ca inteleg gestul meu ca fiind un act profund umanitar si nu am nici un fel de pretentii materiale sau de alta natura.

Data .....
Reprezentantul donatorului ..... (gradul de rudenie)

- In Romania, more than ***2,000*** people are annually registered on waiting lists, but ***less than 10%*** of the cases actually receive the transplant.
- The chances of a patient are not the same in all European Union countries: while in Spain there are 33.8 donors per million inhabitants, in Romania there is ***one donor per million inhabitants.***

Is organ donation important?

- Give someone a second chance
- Give the gift of life to someone
- …

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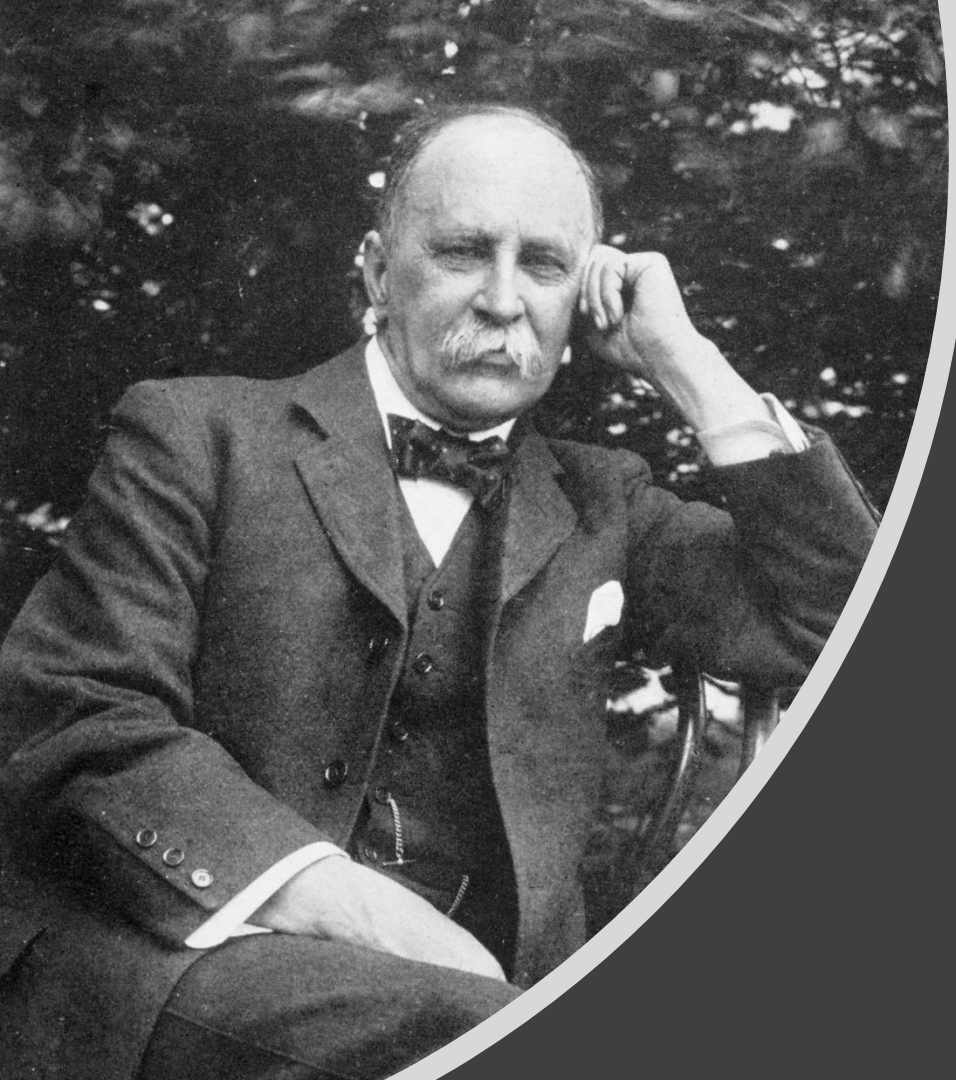
Thank You
For Your Attention

UNIVERSITATEA
DE MEDICINĂ ȘI FARMACIE
VICTOR BABEȘ | TIMIȘOARA

William Osler

Mălina-Adriana Danc, Mihai Ermoiu

Timișoara



William Osler

- **Sir William Osler, 1st Baronet, (***July 12, 1849 – December 29, 1919)* was a Canadian physician and one of the four founding professors of Johns Hopkins Hospital.
- Osler created the **first residency program for specialty training of physicians,** and he was the first to bring medical students out of the lecture hall for bedside clinical training.
- He has frequently been described as the Father of Modern Medicine and one of the "greatest diagnosticians ever to wield a stethoscope".
- Osler was a person of many interests, who in addition to being a **physician**, was a **bibliophile**, **historian**, **author**, and **renowned practical joker.**

William Osler

Biography

- William Osler was born in Bond Head, Canada West (now Ontario), and raised after 1857 in Dundas, Ontario.
- He was called William after William of Orange, who won the Battle of the Boyne on July 12, 1690.
- His mother, who was very religious, prayed that Osler would become a priest.
- Osler was educated at Trinity College School (then located in Weston, Ontario).

- In 1867, Osler announced **he would follow his father's footsteps** into the ministry and entered Trinity College, Toronto.

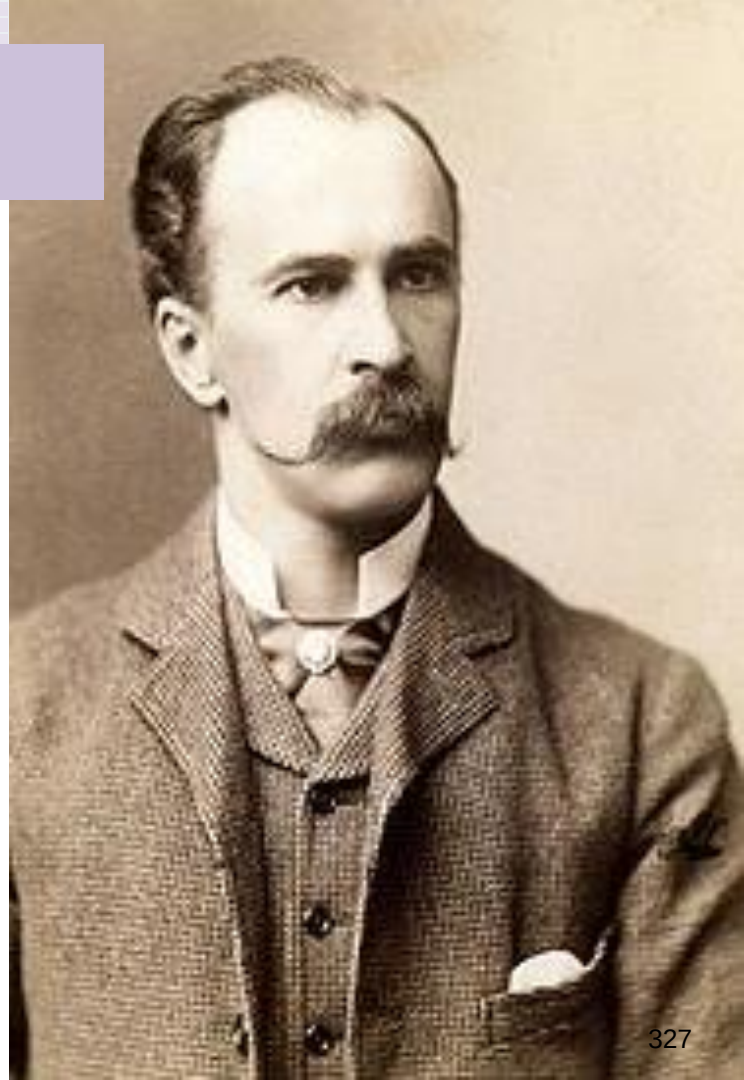
- At the time, **he was becoming increasingly interested in medical science**, under the influence of James Bovell, and Rev. William Arthur Johnson, encouraging him to switch his career.

Biography

- In 1868, Osler enrolled in the Toronto School of Medicine, a privately owned institution, not part of the Medical Faculty of the University of Toronto.

- Osler lived with James Bovell for a time, and through Johnson, he was introduced to the writings of Sir Thomas Browne; his Religio Medici caused a deep impression on him.

- Osler left the Toronto School of Medicine after being accepted to the MDCM program at McGill University Faculty of Medicine in Montreal and he received his medical degree (MDCM) in 1872.

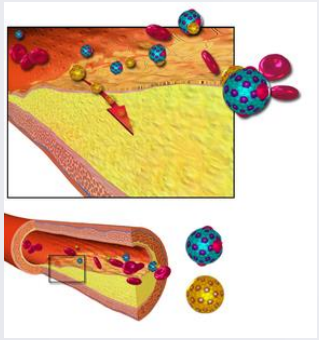


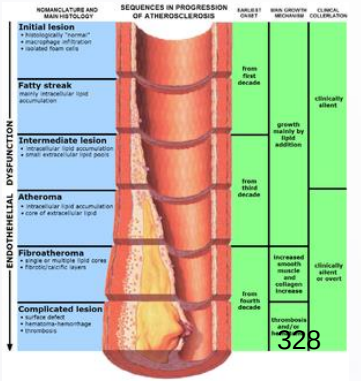
Osler lent his name to a number of **diseases, signs and symptoms**, as well as to a number of **buildings** that have been named for him.

Osler's sign is an artificially high systolic blood pressure reading due to the calcification of atherosclerotic arteries.

Atherosclerosis is a disease in which the inside of an artery narrows due to the build-up of plaque. Initially, there are generally no symptoms.

When severe, it can result in coronary artery disease, stroke, peripheral artery disease, or kidney problems, depending on which arteries are affected. Symptoms, if they occur, generally do not begin until middle age.

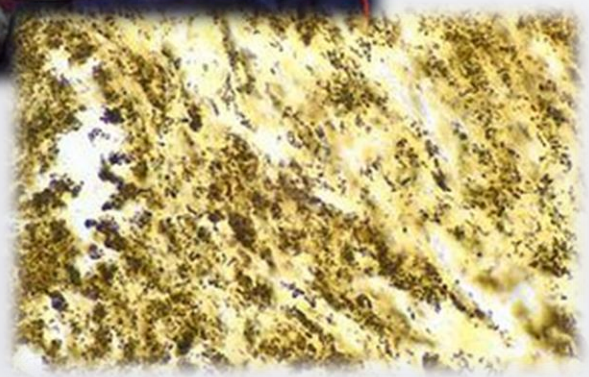




Osler’s nodes

Osler's nodes are raised tender nodules on the pulps of fingertips or toes, suggestive of subacute bacterial endocarditis. Osler described them as "ephemeral spots of a painful nodular erythema, chiefly in the skin of the hands and feet." Osler nodes are usually painful.

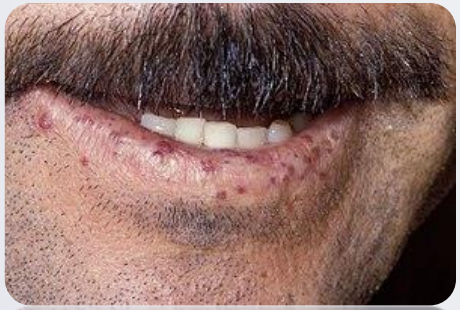
Osler's nodes result from the deposition of immune complexes. The resulting inflammatory response leads to swelling, redness, and pain that characterize these lesions.



Endocarditis is an inflammation of the inner layer of the heart, the endocardium. It usually involves the heart valves. Other structures that may be involved include the interventricular septum, or the surfaces of intracardiac devices.

Osler-Weber-Rendu

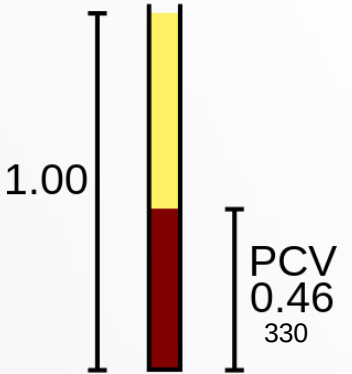
Osler–Weber–Rendu disease (also known as hereditary haemorrhagic telangiectasia) is a syndrome of multiple vascular malformations on the skin, in the nasal and oral mucosa, in the lungs and elsewhere



Osler–Vaquez disease

(also known as Polycythemia vera)

Polycythemia (also known as polycythaemia or polyglobulia) is a disease state in which the haematocrit (the volume percentage of red blood cells in the blood) is elevated.



Influence on medical school

- Osler's greatest influence on medicine was to insist that students learn from seeing and talking to patients and the establishment of the medical residency.

- At Hopkins, Osler established the full-time, sleep-in residency system whereby staff physicians lived in the administration building of the hospital.

- He believed that students learned best by doing and clinical instruction should therefore begin with the patient and end with the patient. Books and lectures were supportive tools to this end.

"He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all."

A prolific writer

- William Osler enjoyed writing and collecting medical texts, having published over 1300 original articles during his career

- One of Osler's most famous essays, *Aequanimitas*, was first delivered to newly minted doctors in 1889 as a valedictory address at the Pennsylvania School of Medicine.

- His most famous work, 'The Principles and Practice of Medicine' quickly became a key text to students and clinicians alike. It continued to be published in many editions until 2001 and was translated into many languages.

"A library … is a great catalyser, accelerating the nutrition and rate of progress in a profession."

What makes a good doctor?

- Osler urges his young audience to “consider but two of the score of elements which may make or mark your lives.”

- The first is **imperturbability**, which refers to “calmness amid storm, clearness of judgement in moments of grave peril.”

- The second, related element – **equanimity** – has been the subject of some debate among Osler scholars. Osler recommends a tolerant, somewhat non-judgmental attitude towards our fellow humans.

“The good physician treats the disease; the great physician treats the patient who has the disease.”

The importance of optimism and humor

- Osler also advises us “not to seek certainty when it cannot be found but to be satisfied with fragments of the truth and to be ready for the inevitable struggles and disappointments ahead.”

- When he was in his fifties he gave a controversial speech about old age, describing a college where men retired at 67 and would be “peacefully extinguished by chloroform”, a joke that was taken literally by the press.

- In the 3rd edition of his Textbook, he also coined the description of pneumonia as "the friend of the aged" since it allowed elderly individuals a quick, comparatively painless death.

“The effective, moving, vitalizing work of the world is done between the ages of twenty-five and forty."

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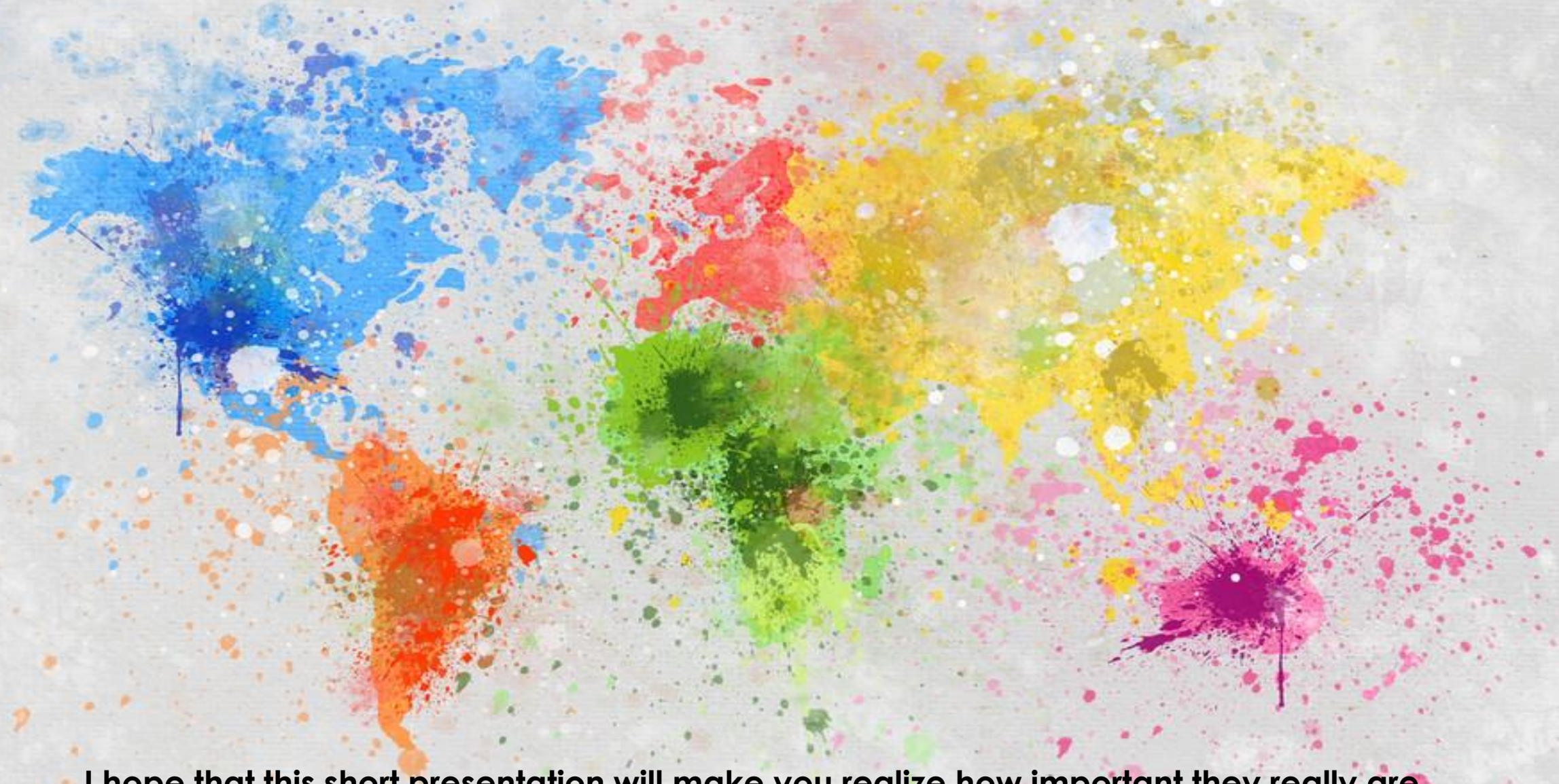
Thank you !

A COLOURFUL JOURNEY

Janet-Camelia Drimuș

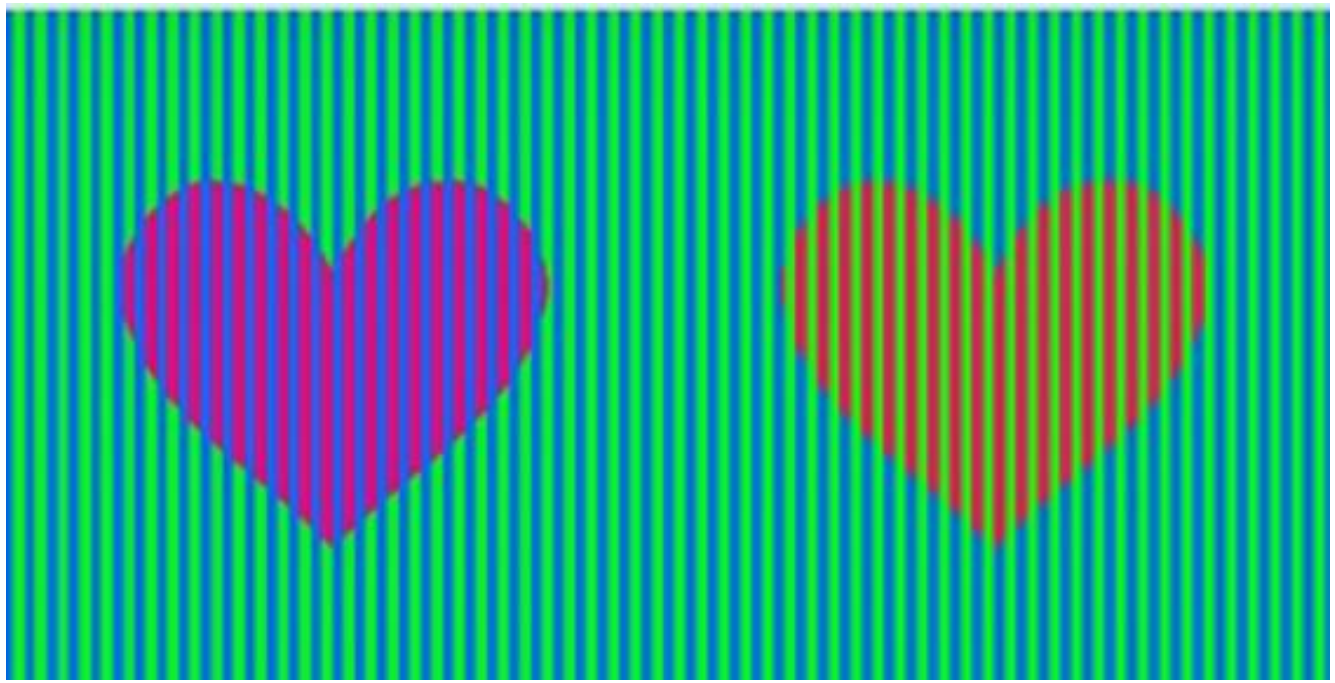
"Victor Babeș" University of Medicine and Pharmacy Timișoara, Romania

We live in a colourful world, but we hardly notice the colours in our everyday life



I hope that this short presentation will make you realize how important they really are

By the end of my presentation, I will have convinced you that these two colours are the same



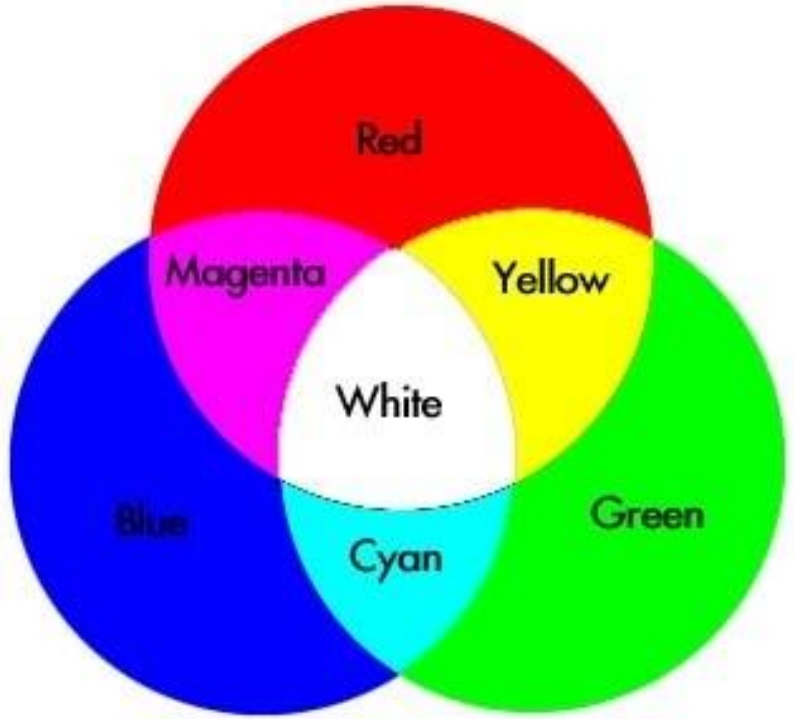
What is a colour?

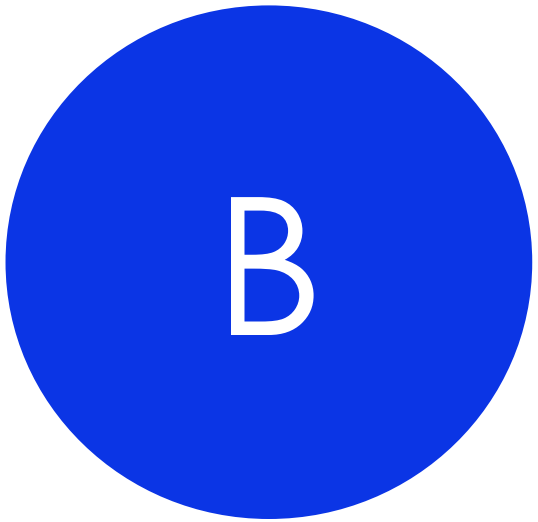
A colour is a property possessed by an object of producing different sensations on the eye, as a result of the way it reflects or emits light

There are 3 primary colours:

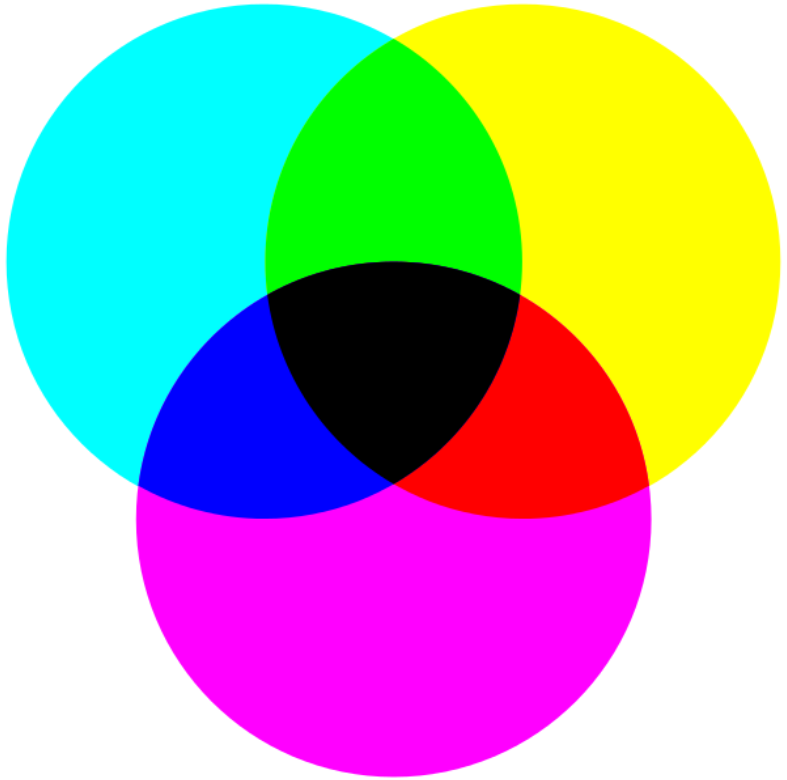
Red, Green and Blue (The RGB system)

If we mix it all together we get white and in different combinations we get: Magenta, Cyan and Yellow, which are secondary colours





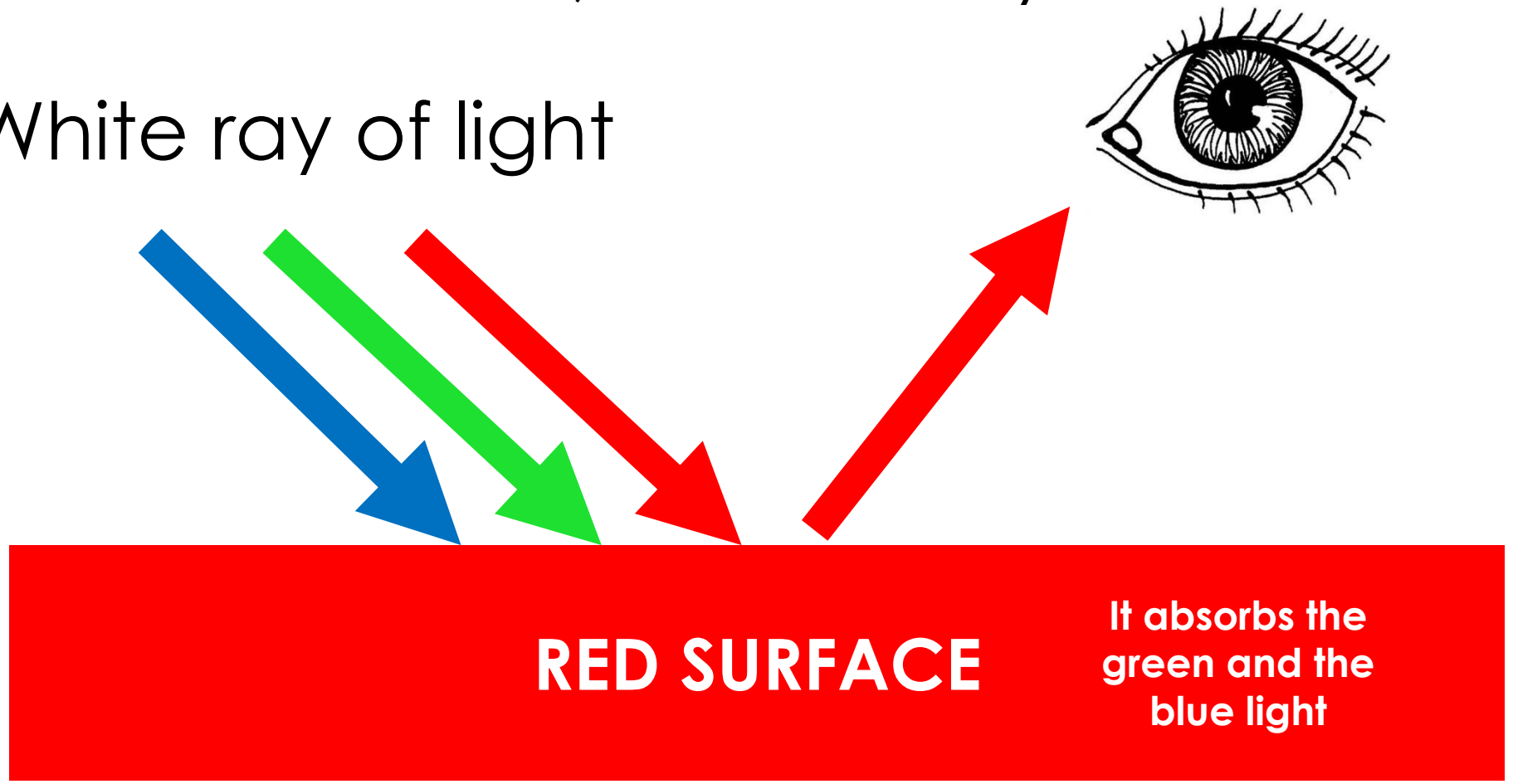
But what happens when we mix the secondary colours together? We get the colour black



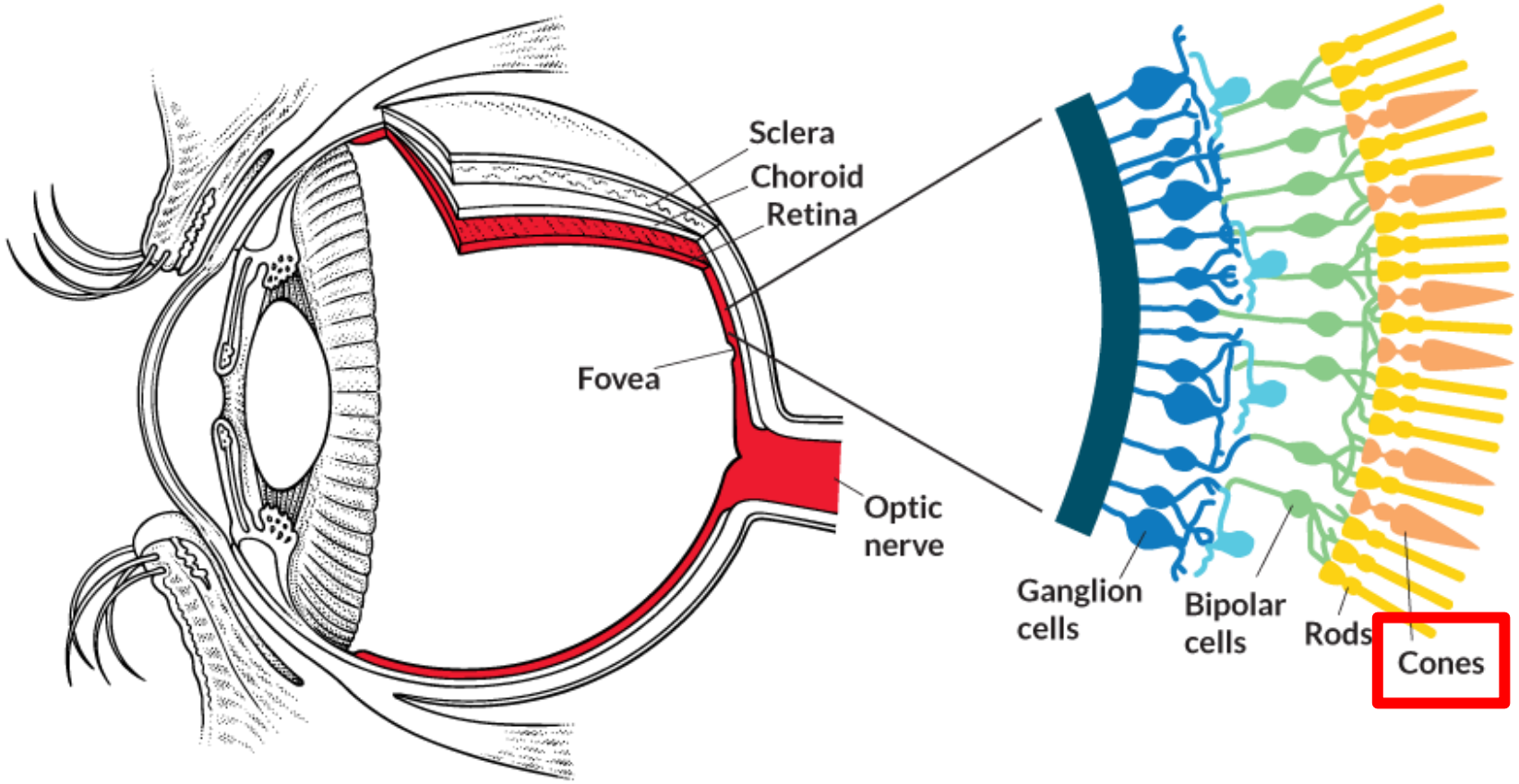
How do we see a certain colour?

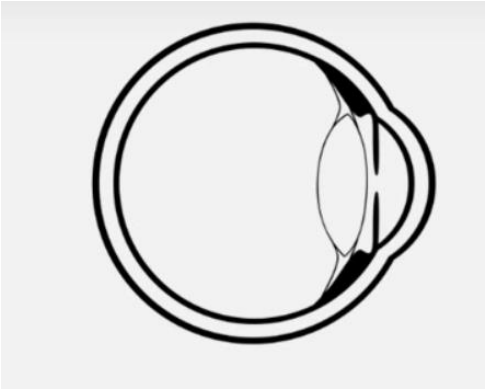
Let's say we have a red surface and a white ray of light reaching it. The surface will absorb the blue and the green light and it will reflect the red one, which will reach our eyes.

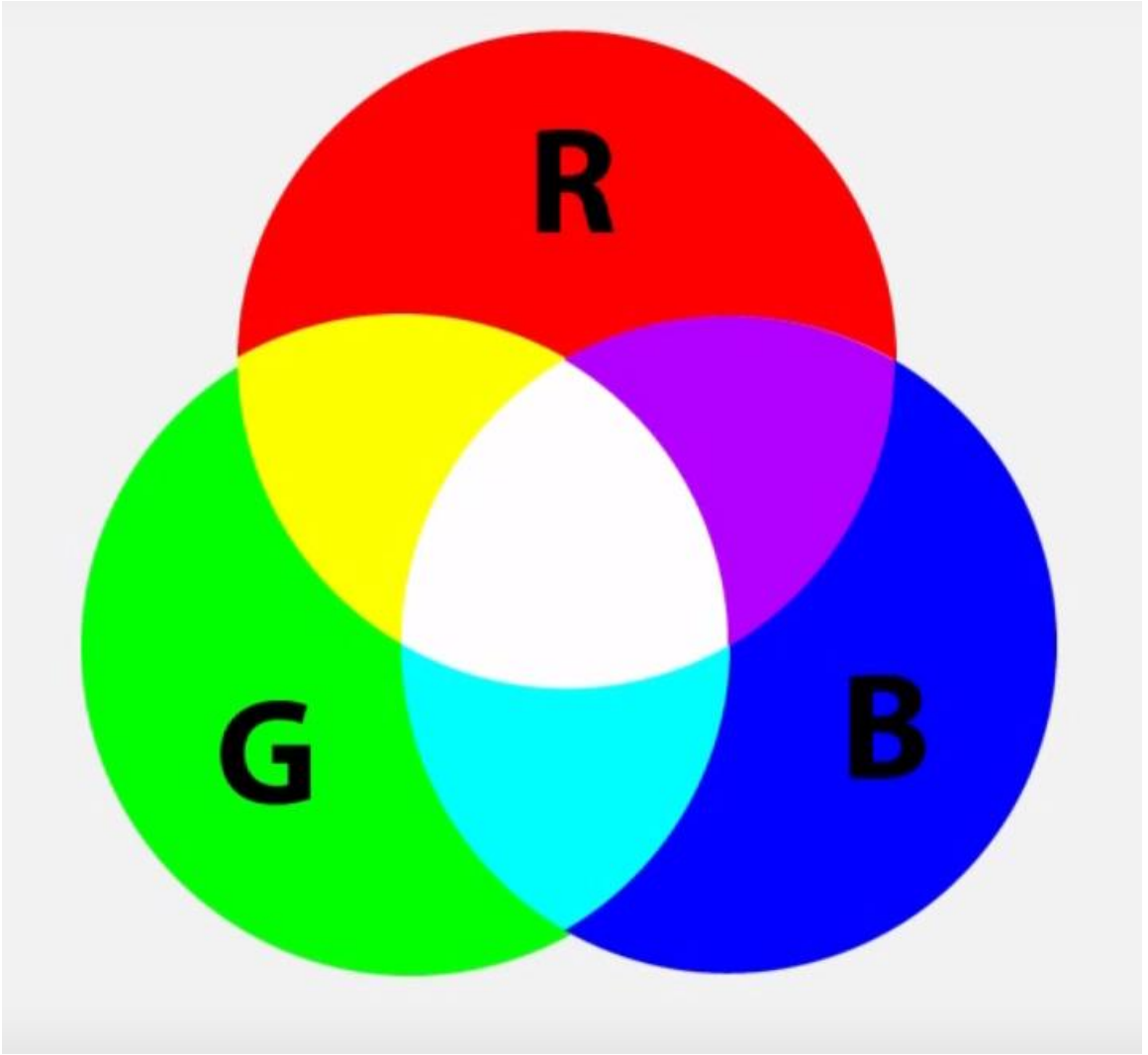
White ray of light



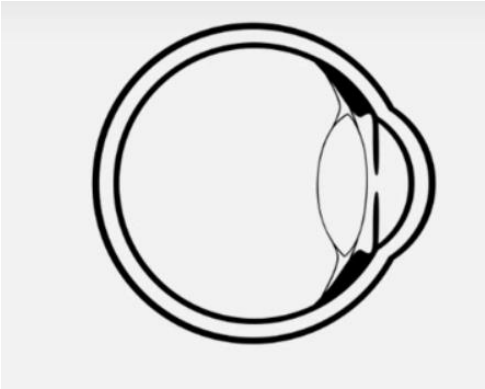
In our eyes we have colour receptors called cones that detect red, blue and green light

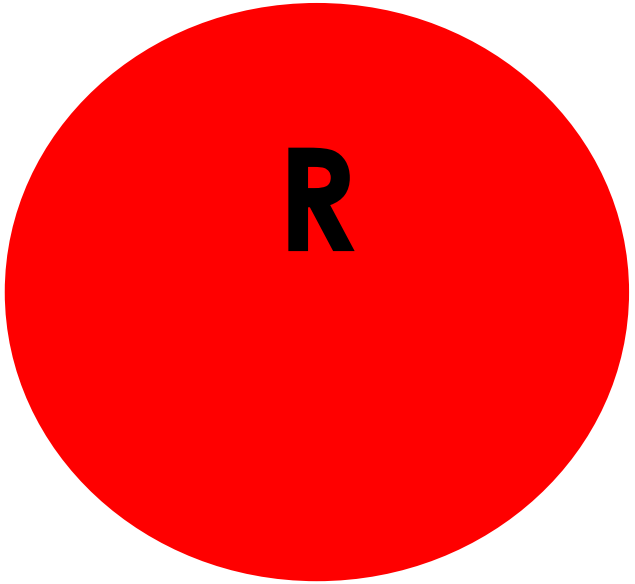




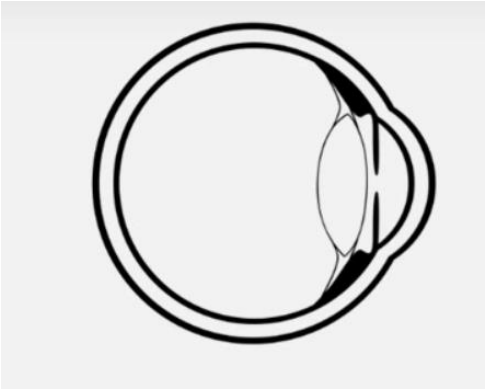


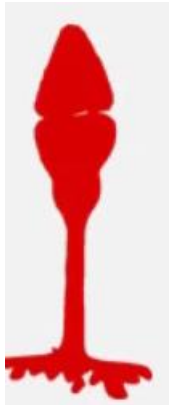
We see colours based on the different level of activity across these cones

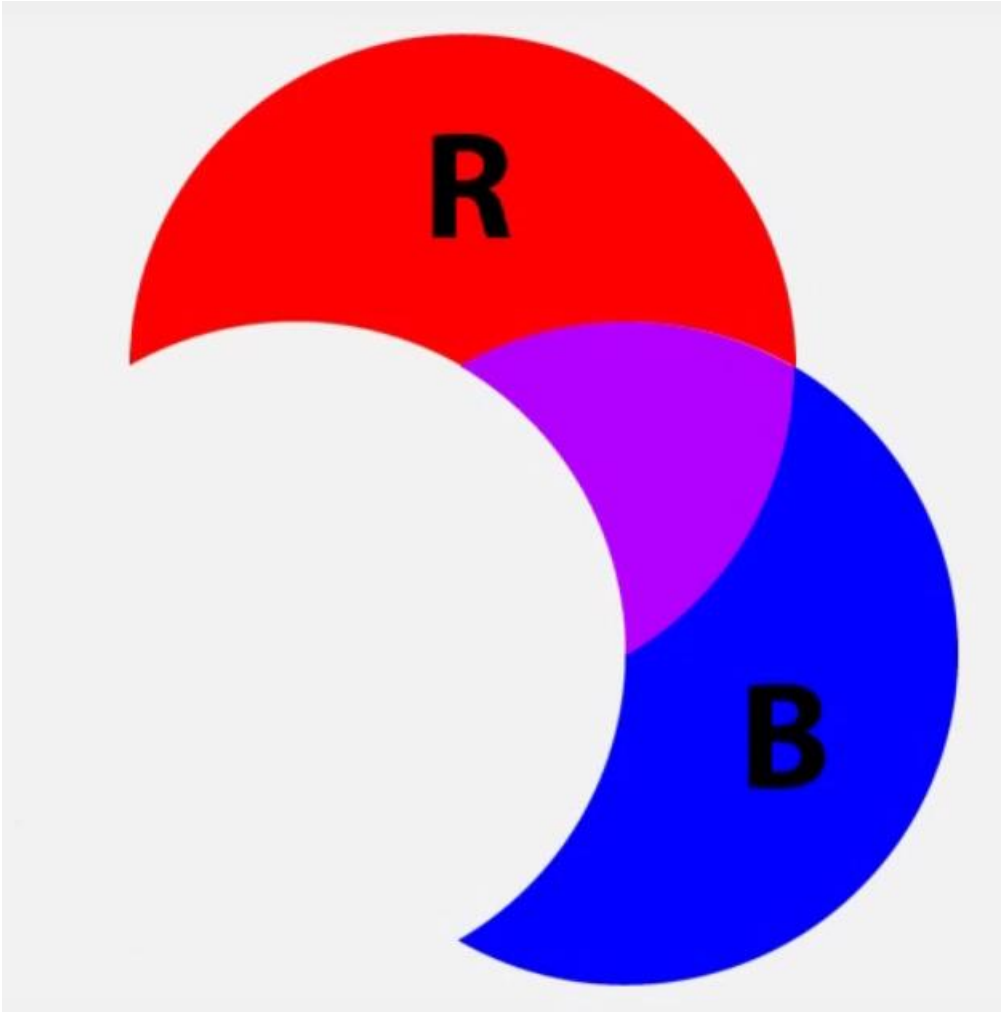




For example, if we stimulate the red cone cells we see red

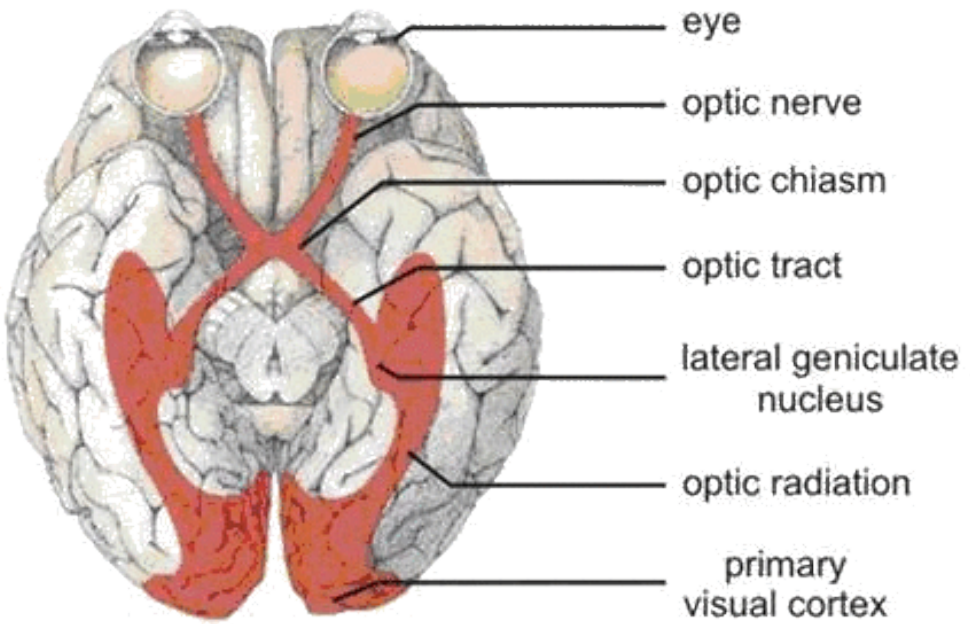






But if we stimulate the red and the blue ones, we see purple

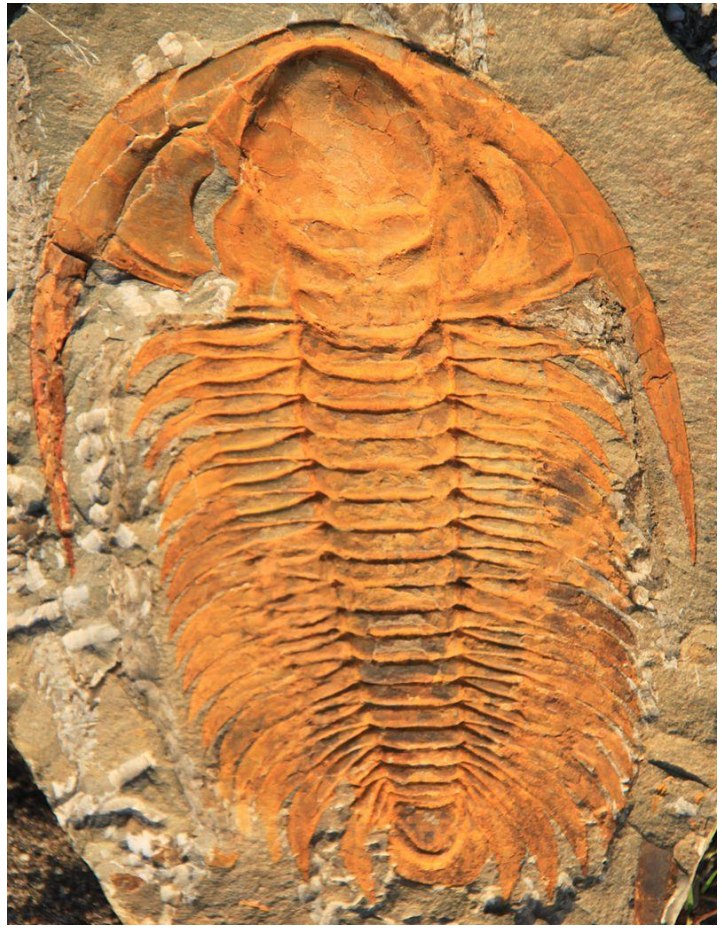
They will convert the light to electrochemical impulses which are transferred along the optic nerve to the brain, in the primary visual cortex which is located in and around the calcarine fissure in the occipital lobe

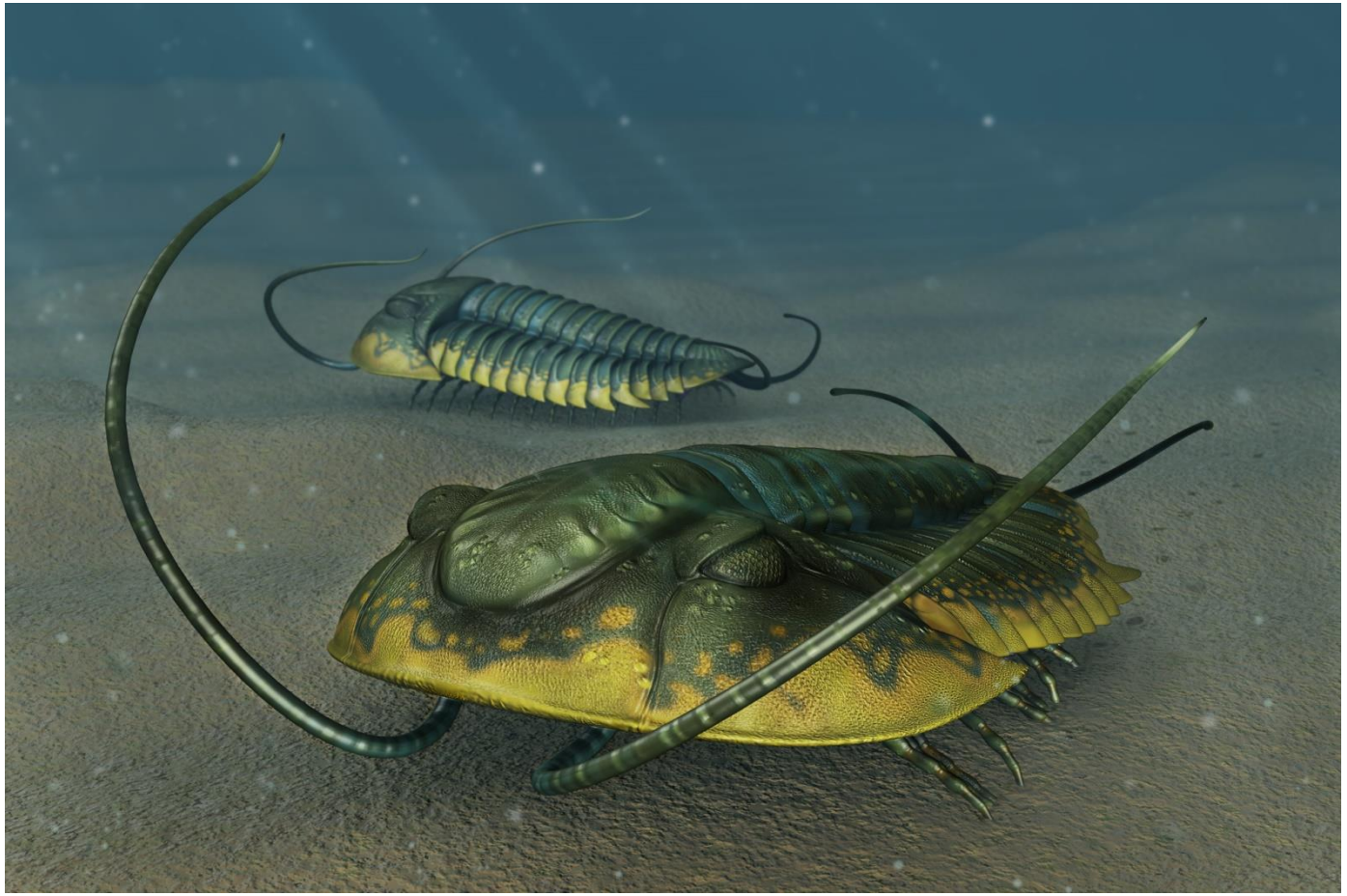


A colour = a human perception

When did colour first begin on earth?

We need to look back at the very first eye that existed and it belongs to a Trilobite, and it could produce images just as well as we can today. But this arthropod lived 521 million years ago. Before that there was no vision, and colour didn't really matter.





But now it does. Everywhere we look we are surrounded by colours.

They are a major part of our lives, but they also affect our way of living.

They can make us happy, sad, angry or melancholic.

For example: we have here 5 candies that are different colours

Can you taste them based on their colour?

They are physically exactly the same, apart from the colour

Green = Apples

Yellow = Lemons

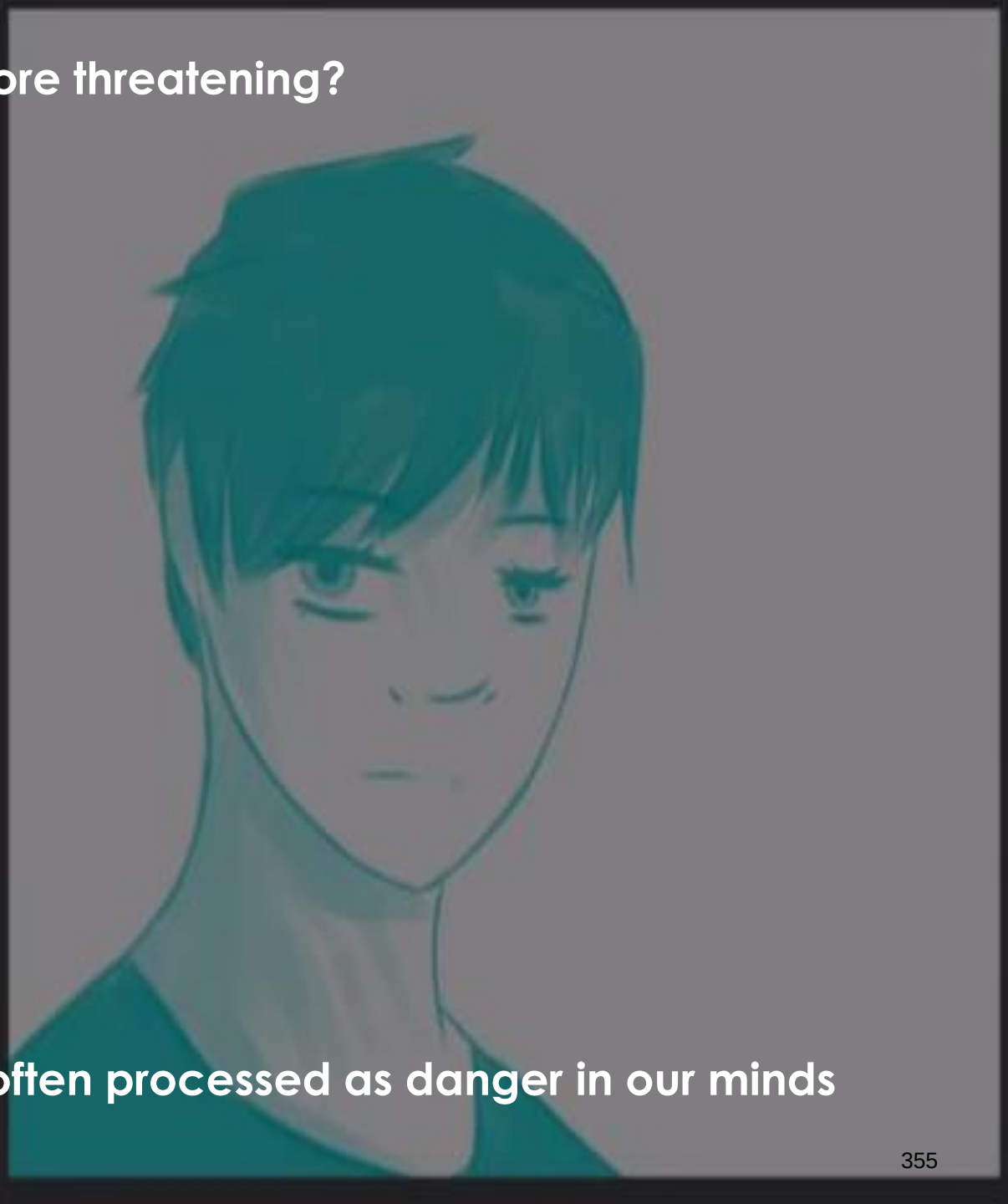
Orange = Oranges

Red = Strawberries

Purple = Blueberries

You associate the colour with the things you experienced in the past

Which person looks more threatening?



Most people will pick red, because red is often processed as danger in our minds

But if colours are part of human experience, how do I know that your orange is not my blue?

Do we all see colours the same way?

There are some examples in which we cannot agree on which colours we see

Some people will see this dress blue & black and others will see it yellow & white

Blue & Black?

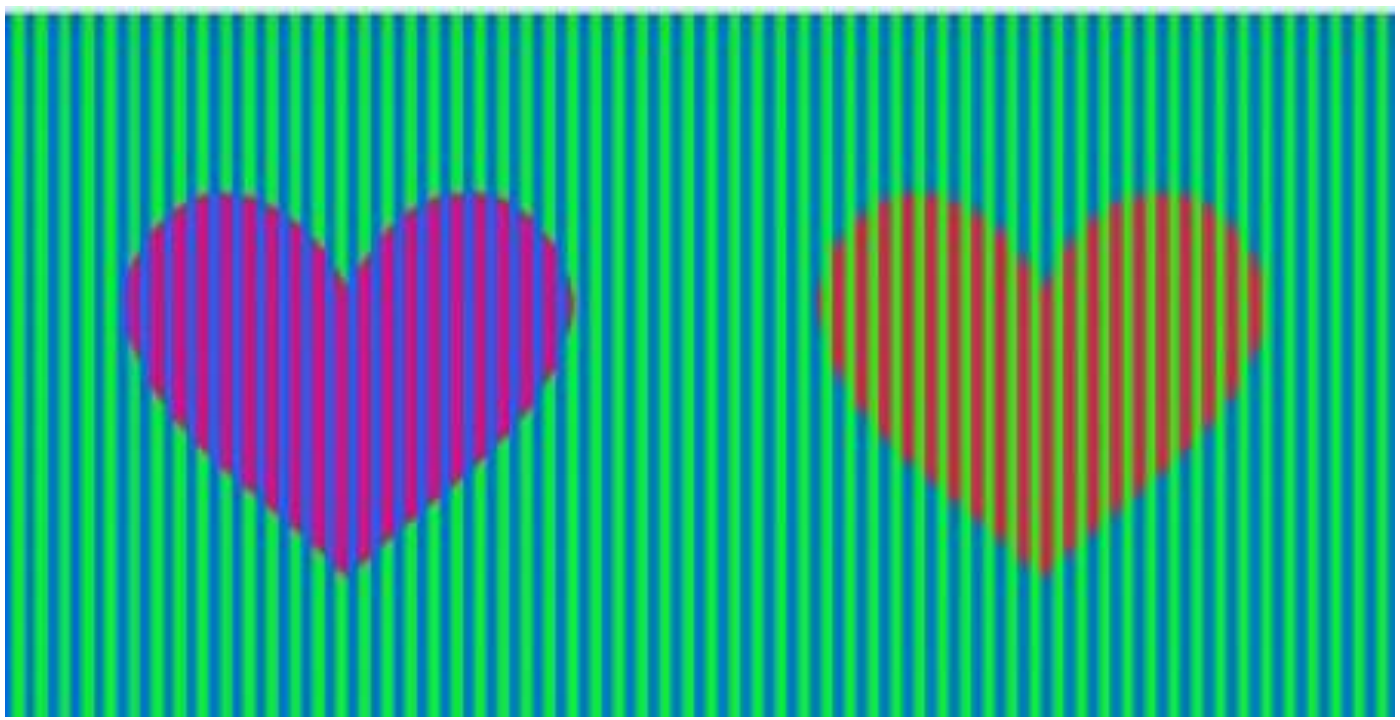
Yellow & White?

We can't really explain if we see the same colours and no one can prove it

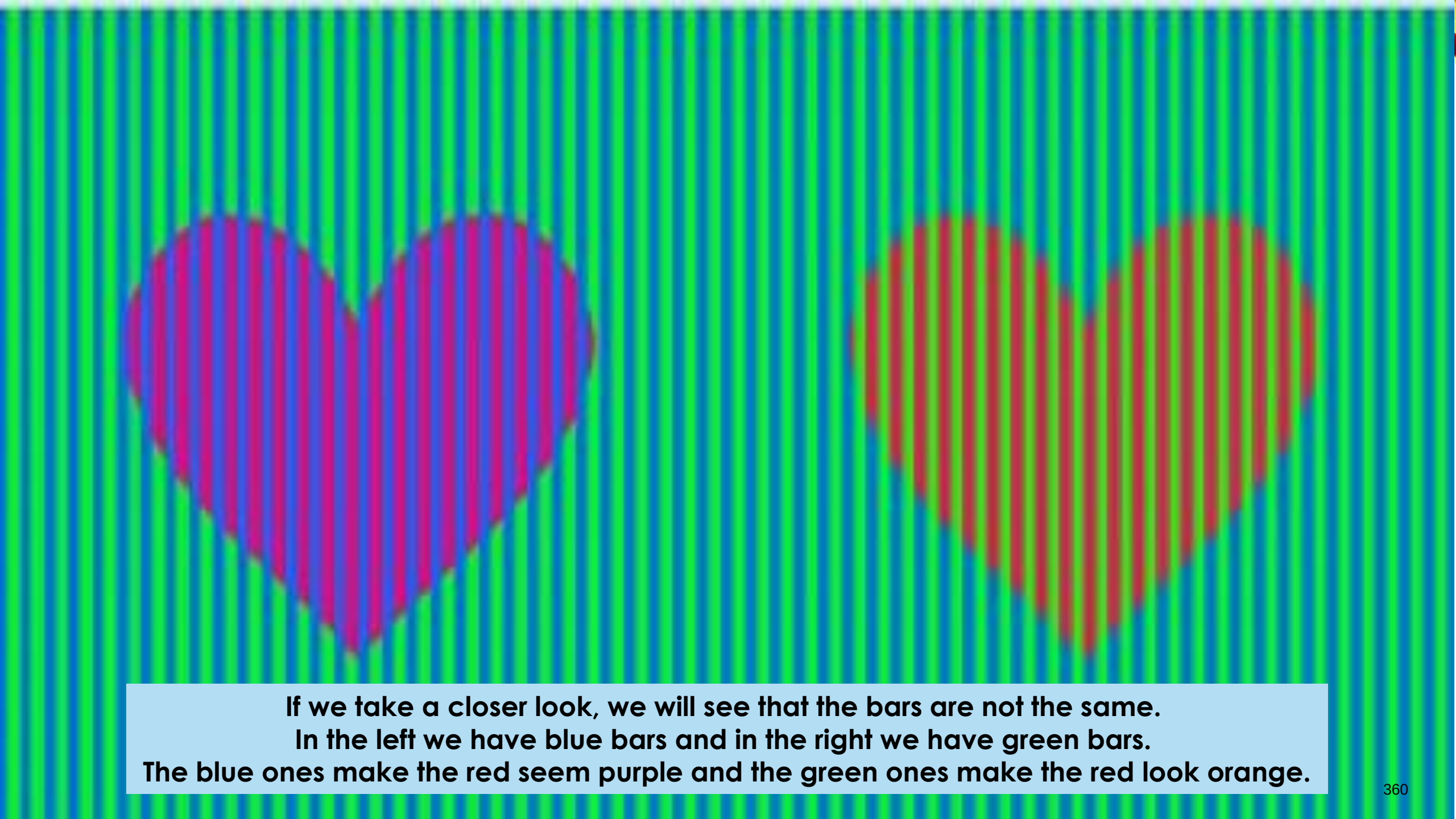
In the end, I promised to convince you that these two colours are the same.

We saw that colours affect us, but besides that, they affect each other.

We don't see an object based on its actual colour, but on how it compares to the surrounding colours.



If I take the bars away, you will see that these two are the same colour. How did it happen?



If we take a closer look, we will see that the bars are not the same.
In the left we have blue bars and in the right we have green bars.
The blue ones make the red seem purple and the green ones make the red look orange.

In conclusion, colours do play a significant role in our lives and our societies and I hope that you will look at colours from a different perspective from now on

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Thank you for your attention !

The voice
should belong to us!

Janet-Camelia Drimuș

“Victor Babeș” University of Medicine and Pharmacy
Timișoara, Romania

The purpose of this presentation is not to convince you that vaccines are good or bad. What I am actually trying to do here is to make you more responsive to this subject.

Let's talk about vaccines!

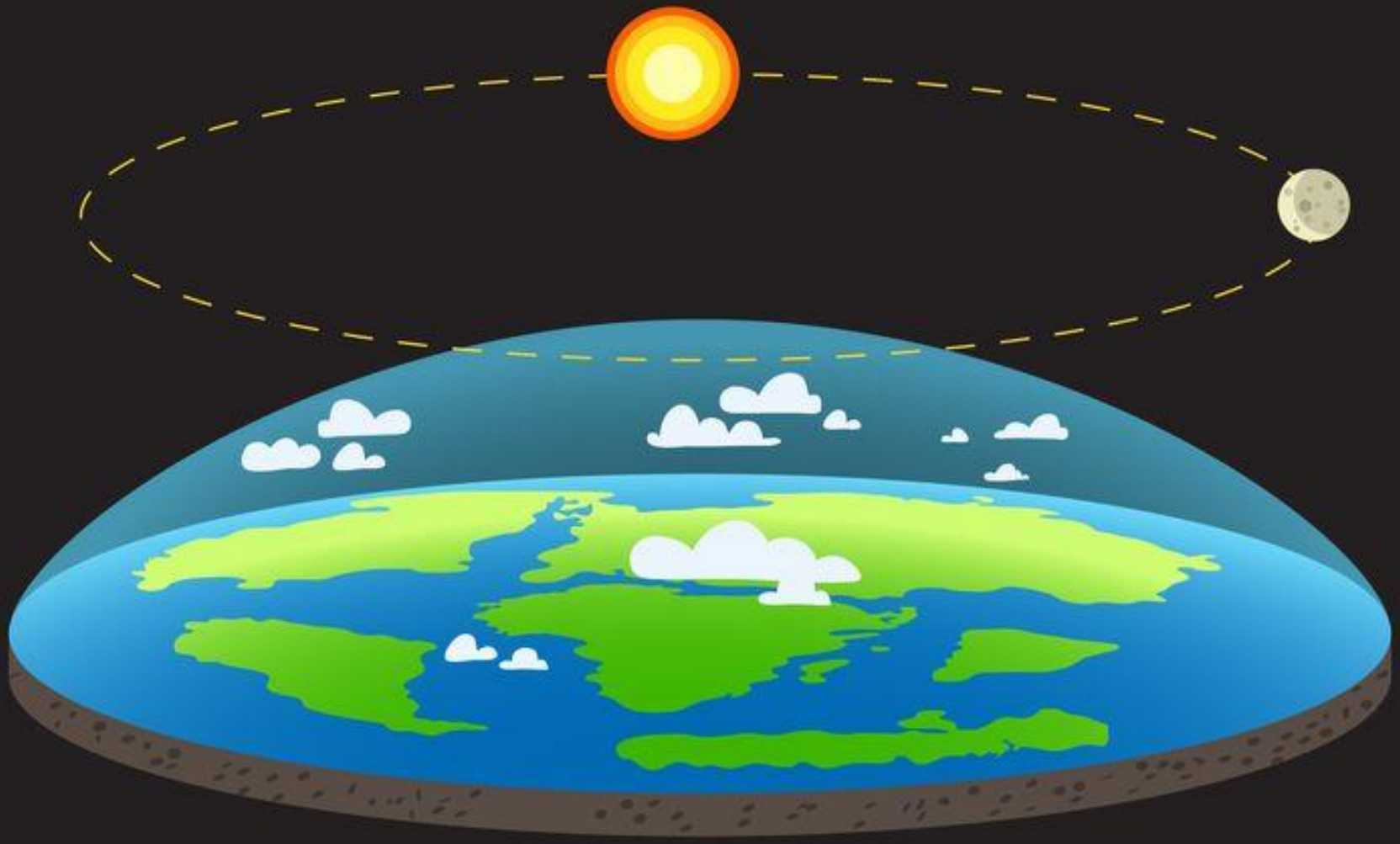
The world has changed for the past century!

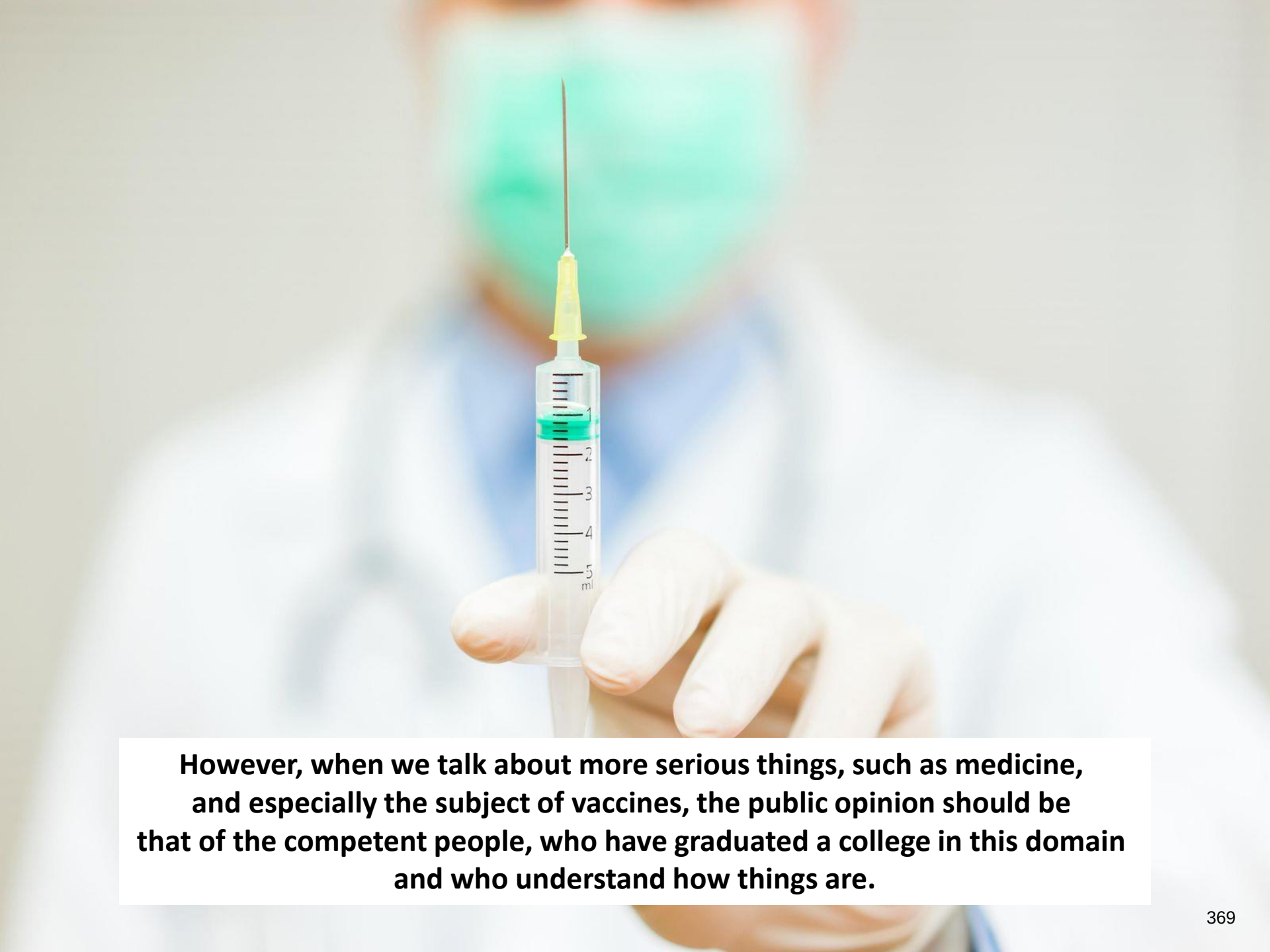
In the present, almost everyone has access to a lot of information, and everyone can express themselves freely and have an opinion they can share with the others.

Free information!

I believe this is a double-edged blade: yes, it is good to be able to be informed about anything with just a click, but not every source is necessarily a valid one, and therefore we risk ending up forming incorrect opinions.

Obviously, every person has the right to an opinion. But this should be accepted only in cases where that opinion does not affect anyone else but themselves. For example, people who believe the Earth is flat.





However, when we talk about more serious things, such as medicine, and especially the subject of vaccines, the public opinion should be that of the competent people, who have graduated a college in this domain and who understand how things are.

From where we stand, we have the moral duty of educating as many people as we can, those who seek the answer to the question:
"Should I vaccinate my child?"

To be able to do that, we must be able to address some of the myths that have appeared through misinformation.

As such, I wish to present to you three main issues that people have when it comes to vaccines.

A

B

C

Myths

Facts

Do vaccines cause autism?

- In 1998, **Andrew Wakefield** published an article in the prestigious medical journal called "Lancet", which suggested that the measles, mumps, and rubella vaccines may predispose to autism
- The doctor was found guilty by the British General Medical Council (GMC) of 36 charges, including dishonesty and abuse of children
- He picked and chose data that suited his case and practically falsified facts
- Therefore Andrew Wakefield lost his medical license

36 charges

Dishonesty

Falsified facts

→ **There is no connection between VACCINES and AUTISM.**

A

Do Vaccines contain aluminium?

- Sometimes the mention of aluminum in vaccines makes parents uneasy
- There has been some evidence that long-term exposure to high amounts of aluminum can contribute to brain and bone disease
- Aluminum has only been shown to harm people if absorbed in very high amounts
- The amount of aluminum in vaccines is negligible, its quantity is so small that it does not cause any noticeable increase in the base amount already found in the blood, even immediately after an injection

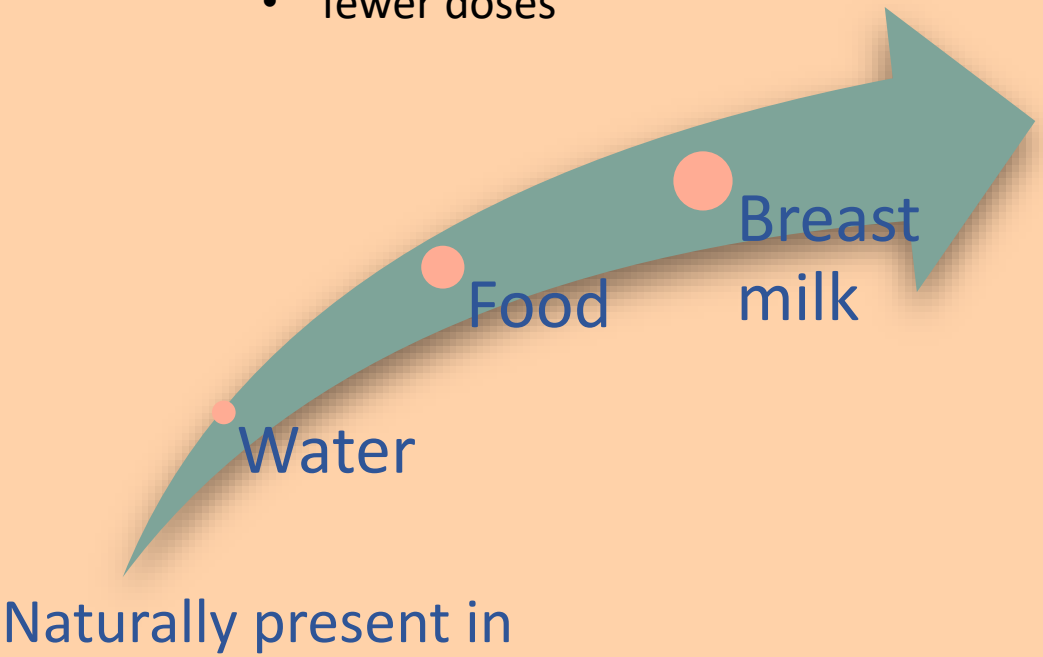
- adjuvant in vaccines

↓

- it makes them more effective by strengthening the immune system response

↓

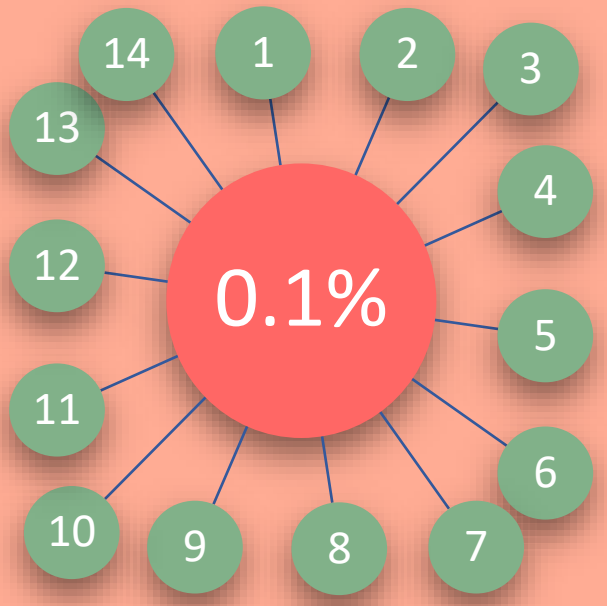
- fewer doses



B

The infant immune systems can't handle so many vaccines ...

The infant immune systems are stronger than you might think. Based on the number of antibodies present in the blood, a baby would theoretically have the ability to respond to around **10,000 vaccines** at a time.



Even if all 14 scheduled vaccines were given at once, it would only use up slightly more than 0.1% of a baby's immune capacity.

C


So, in conclusion, I want to remind you how important it is to make people understand that vaccines are essential. In the end, we all want the same thing: we want to take care of the people we love and we want to protect them from anything that could harm them.

Speak up when your voice is needed!

Thank you!

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Robert-Cristian Duma

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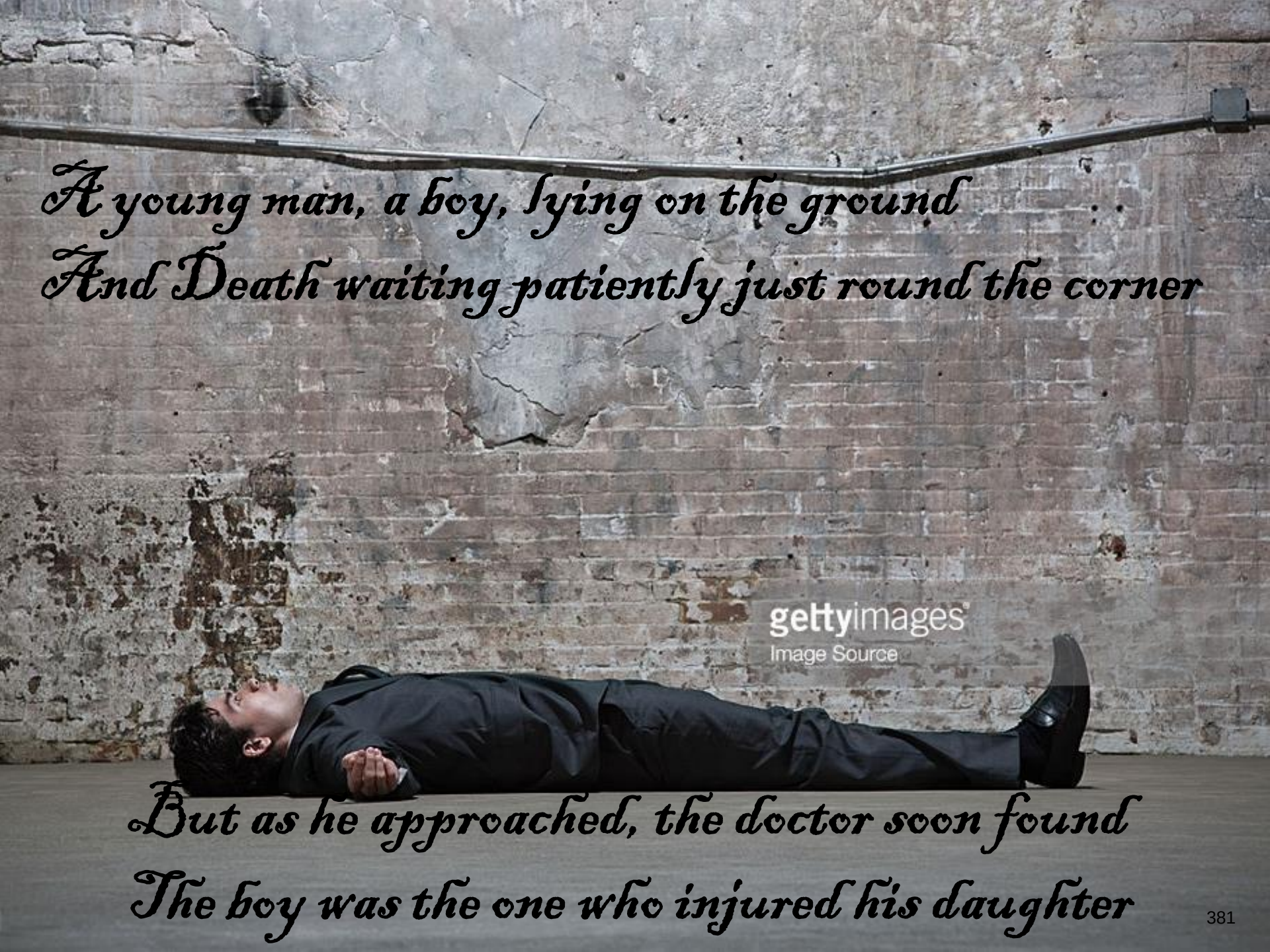
Timişoara, Romania

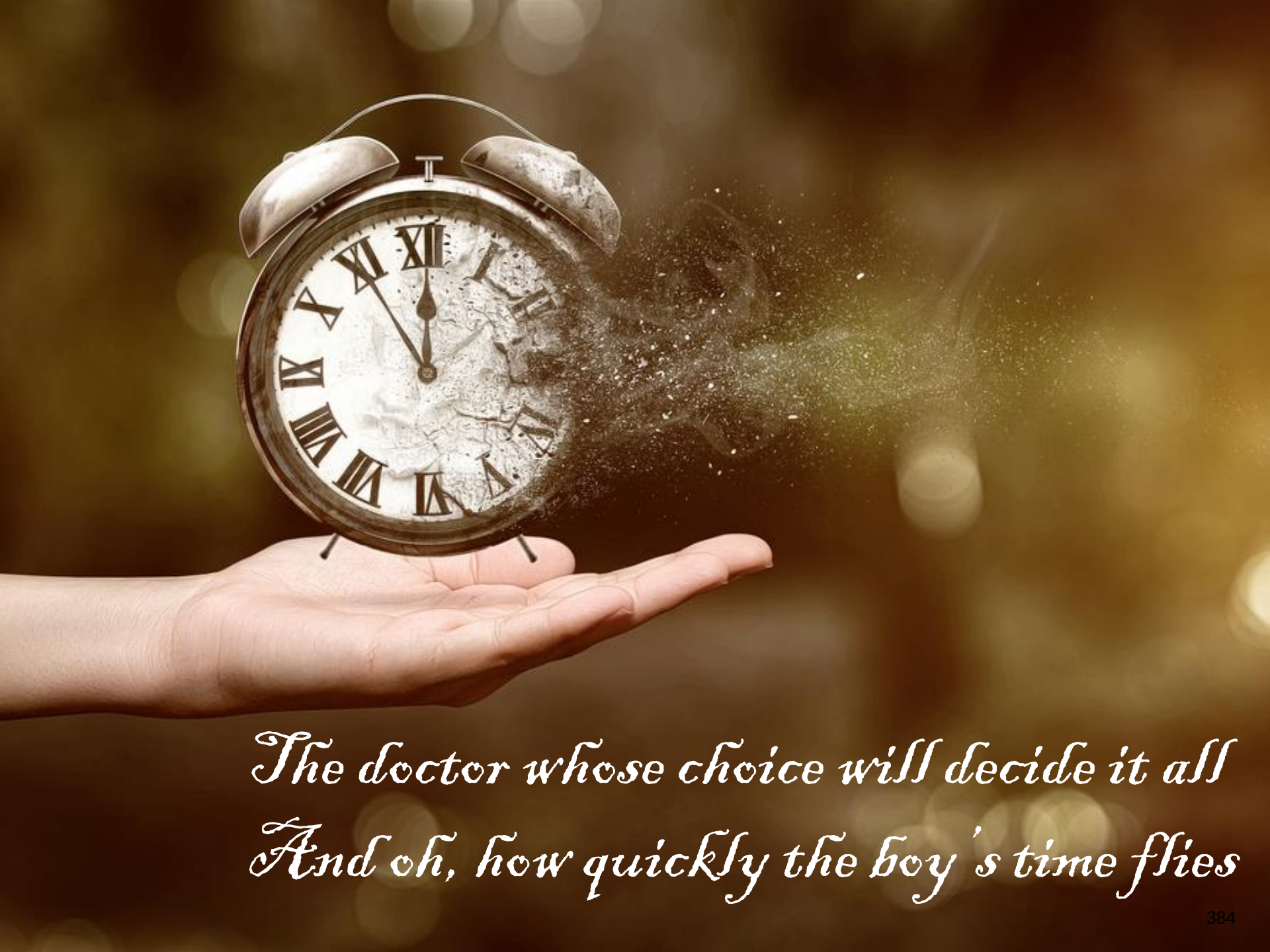

Once upon a night, late, on a street
An oathsworn man is on his way home;
SUPPLY CO.
FOR LEASE
BLOCK 16
UNION
№16


A doctor he is, and he's about to meet
A case that he must confront on his own.


A young man, a boy, lying on the ground
And Death waiting patiently just round the corner
gettyimages
Image Source
But as he approached, the doctor soon found
The boy was the one who injured his daughter


Driving one night, with blood in alcohol


Now in hospital the doctor's daughter lies


The doctor whose choice will decide it all
And oh, how quickly the boy's time flies

But the conclusion of the story will be unravelled at the end

When we will see if rules are enough for heart mend.


I would like to begin with an imagination exercise:
pretend we are all made of Lego Bricks.

Everyone has their unique bricks which build them.
They basically represent our traits, our dreams, hopes,
memories, everything that makes us who we are.
In a way or another, even if sometimes our components
seem to contradict, they are bound together, and they
complete each other.

Our traits also determine our
characters, our actions. The way we are.

And this is
where integrity comes in.

In our case, integrity is the harmony between our components.

It means that we don't do things that contradict with our beliefs, and that we keep our minds clean from the stains of our consciences.


Our traits come from our ancestors,
from our parents, but we are partly
shaped by our surroundings too.
We take Lego Bricks from everywhere
we can, to build ourselves. To finish
the puzzles which are. . . us.

This is our gift of choosing who we want to be, and once our puzzles are strong and steady, we are responsible for our actions. We are no longer shaped by the world as much, and we start to shape it ourselves, instead.

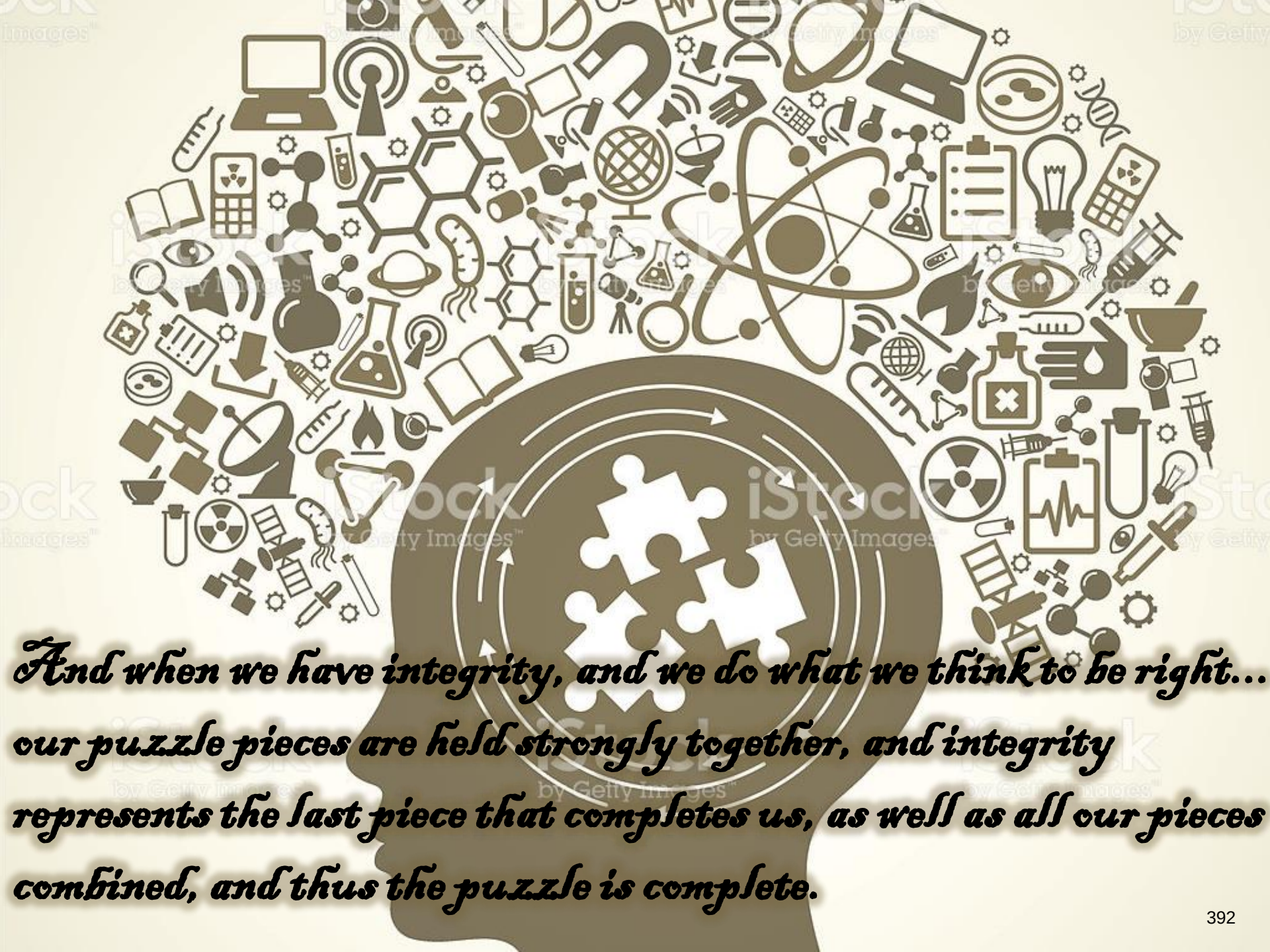
George Bernard Shaw once said "Better keep yourself clean and bright; you are the window through which you must see the world."

So what we see in ourselves is what is reflected in our surroundings.

By helping others, we help the world change for the better.

Not because someone says we have to, or because of some oath that we take as doctors, but because we feel the need to help others, and to be helped back.

Thus, we are only bound by the rules of our souls.



And when we have integrity, and we do what we think to be right… our puzzle pieces are held strongly together, and integrity represents the last piece that completes us, as well as all our pieces combined, and thus the puzzle is complete.

Now. . . allow me to reveal the ending of the tale,

The choice of our protagonist, the lifting of the veil,

At last, the boy's life was in safe hands

As the doctor fought against Death's plans,

Not because he swore to save any life,

But, as a human, he couldn't just stand by.

His choices were affected by the rules of his soul

And you, never forget. . . you are what makes you whole.


I'LL DO IT

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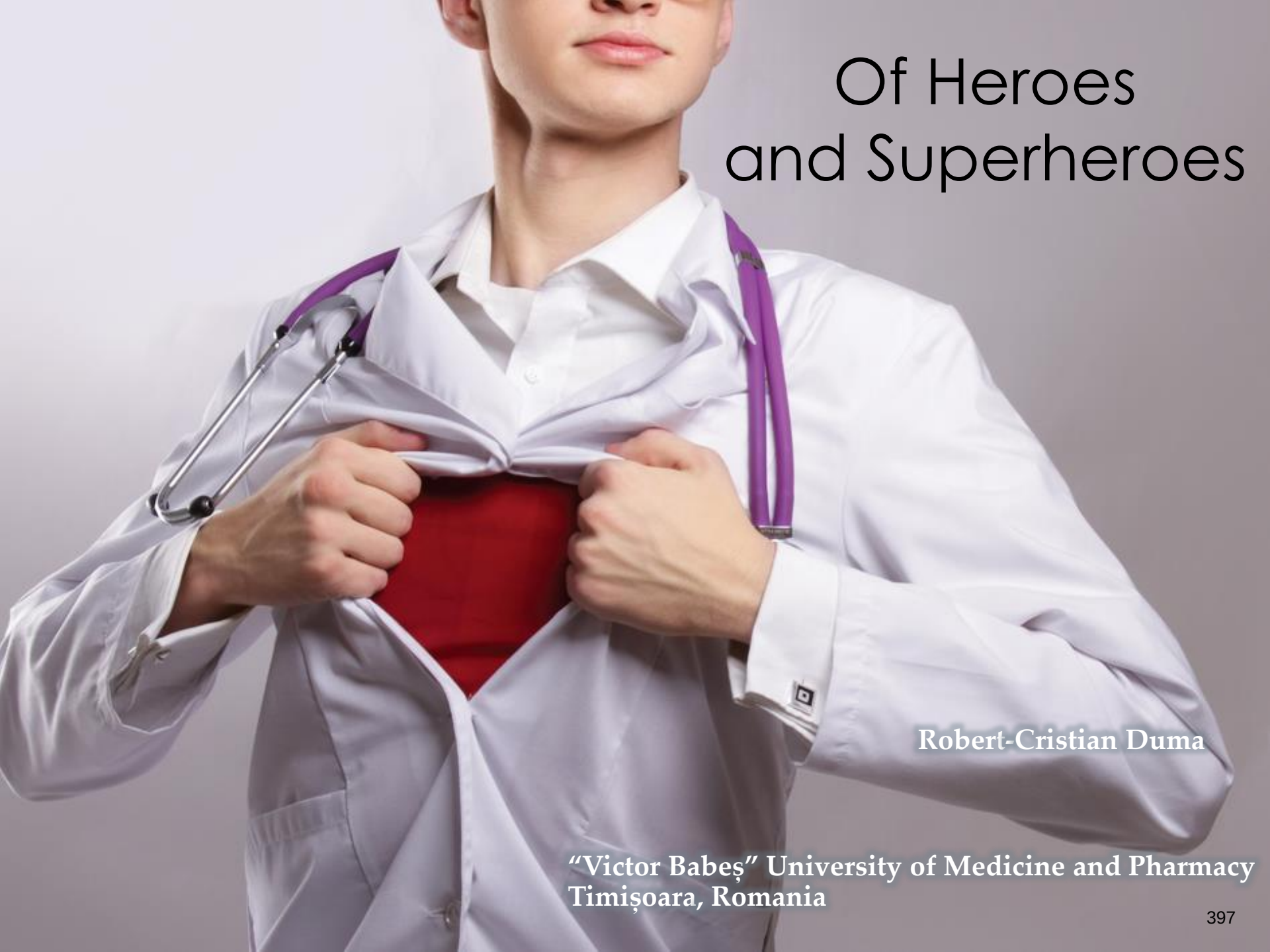
Of Heroes and Superheroes



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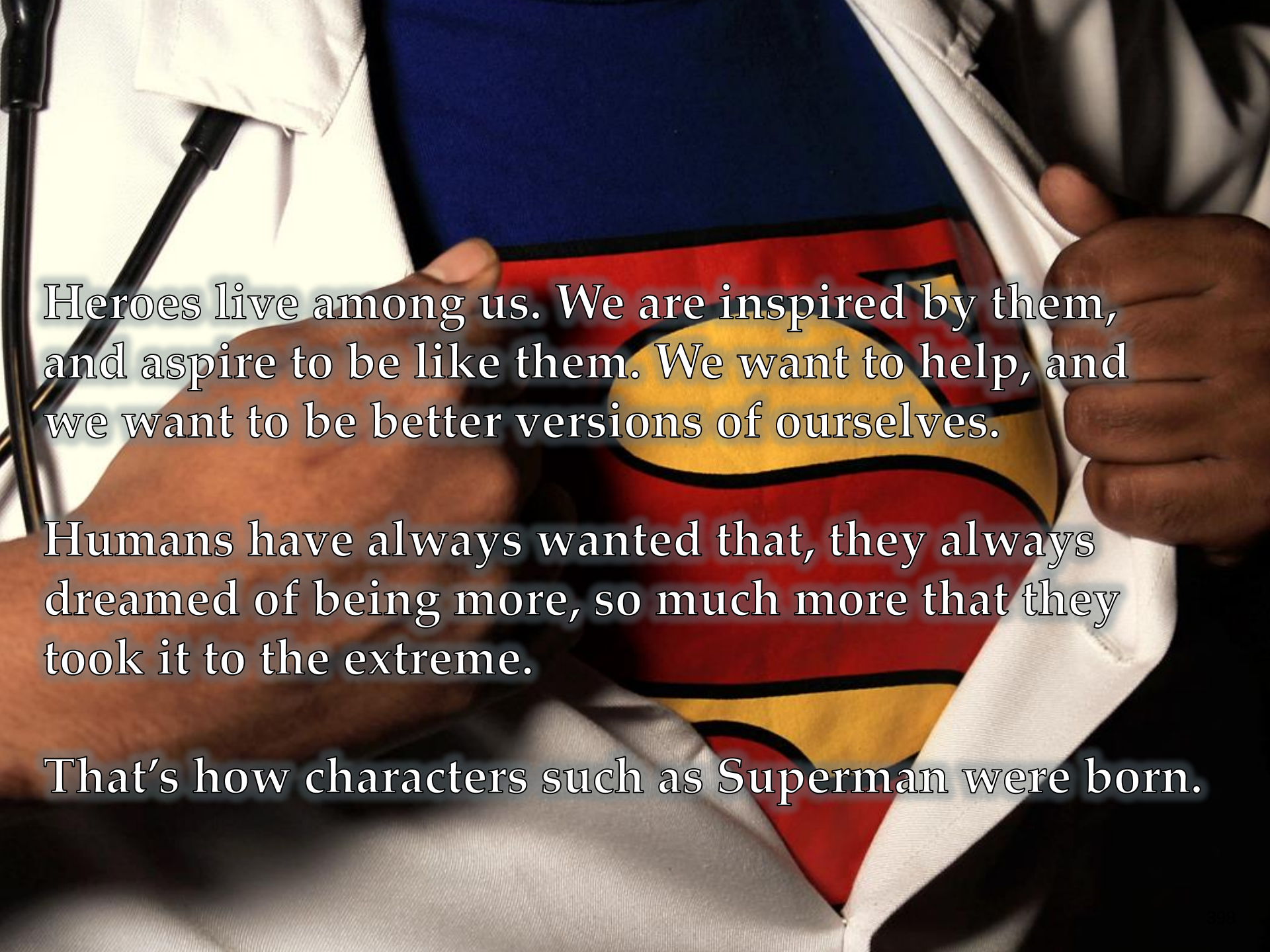
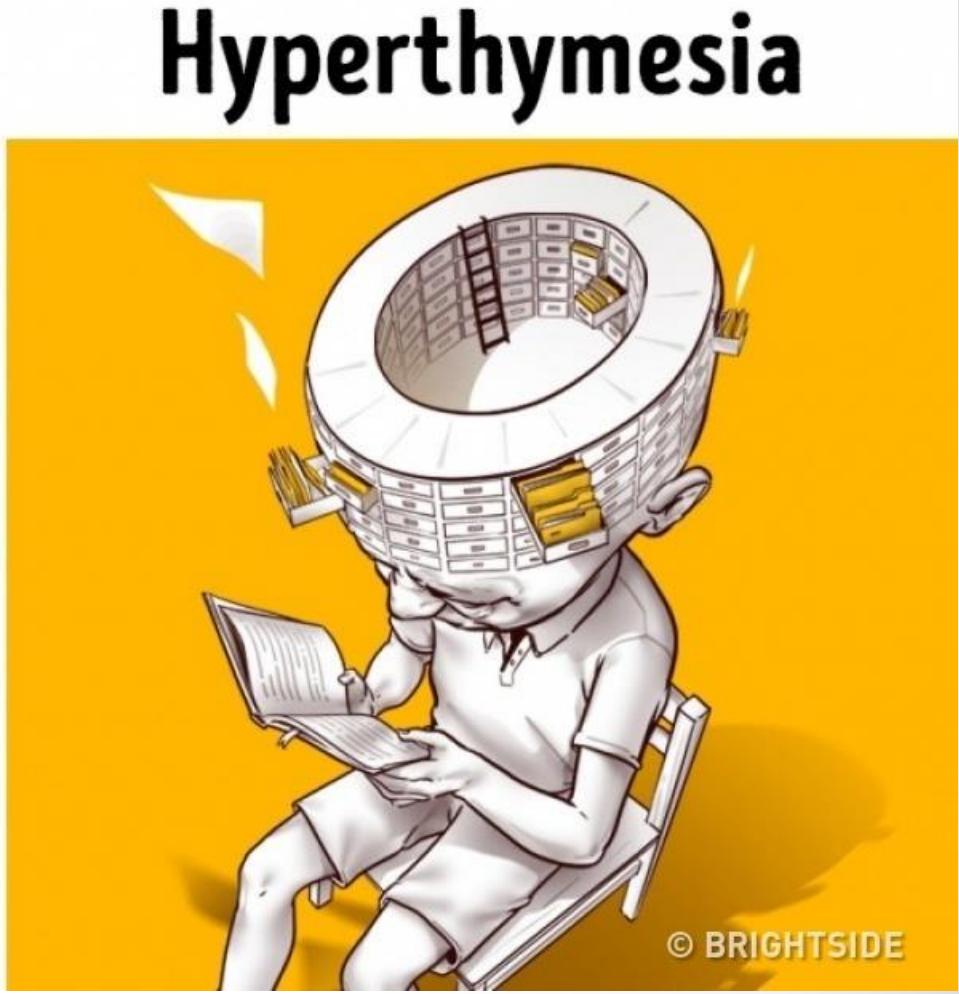

Heroes live among us. We are inspired by them, and aspire to be like them. We want to help, and we want to be better versions of ourselves.
Humans have always wanted that, they always dreamed of being more, so much more that they took it to the extreme.
That's how characters such as Superman were born.

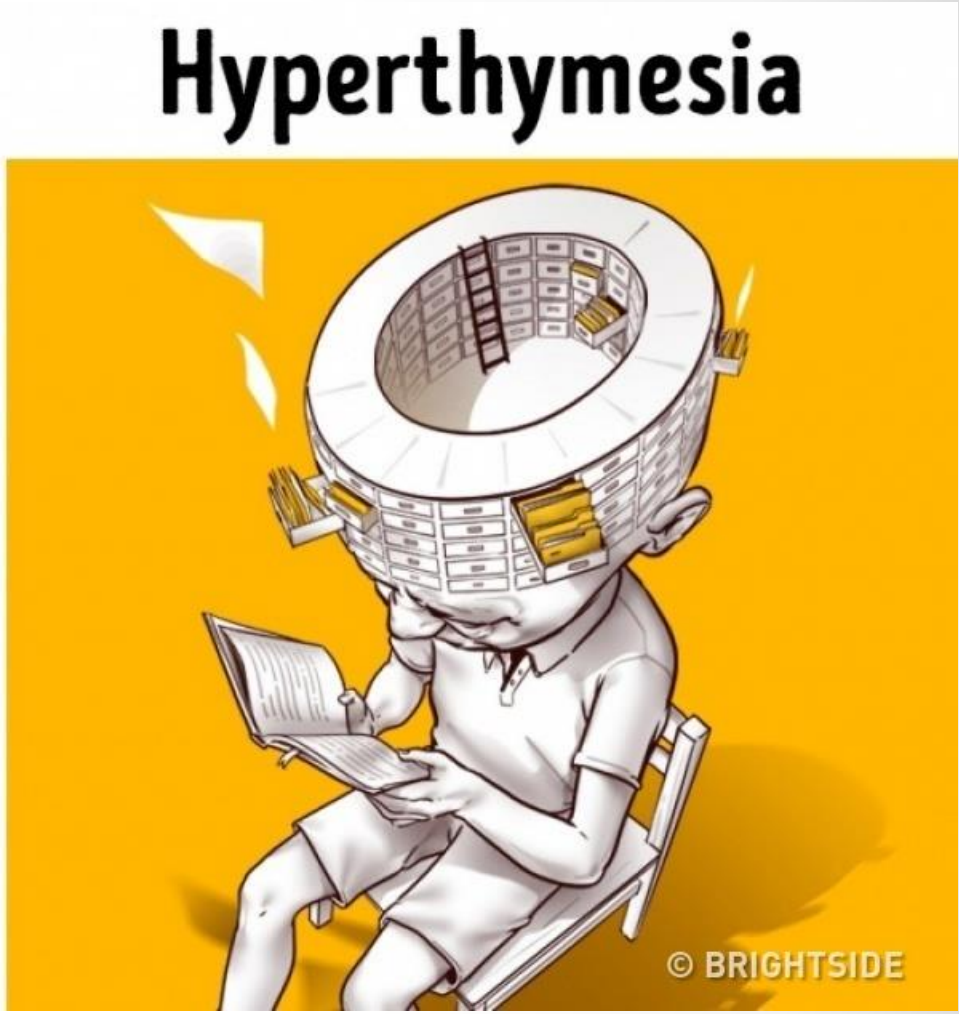
But superheroes live among us as well. Surprisingly, the very things we wish to cure can enhance us.

There are some diseases, that cause humans to become somewhat ... superhuman.

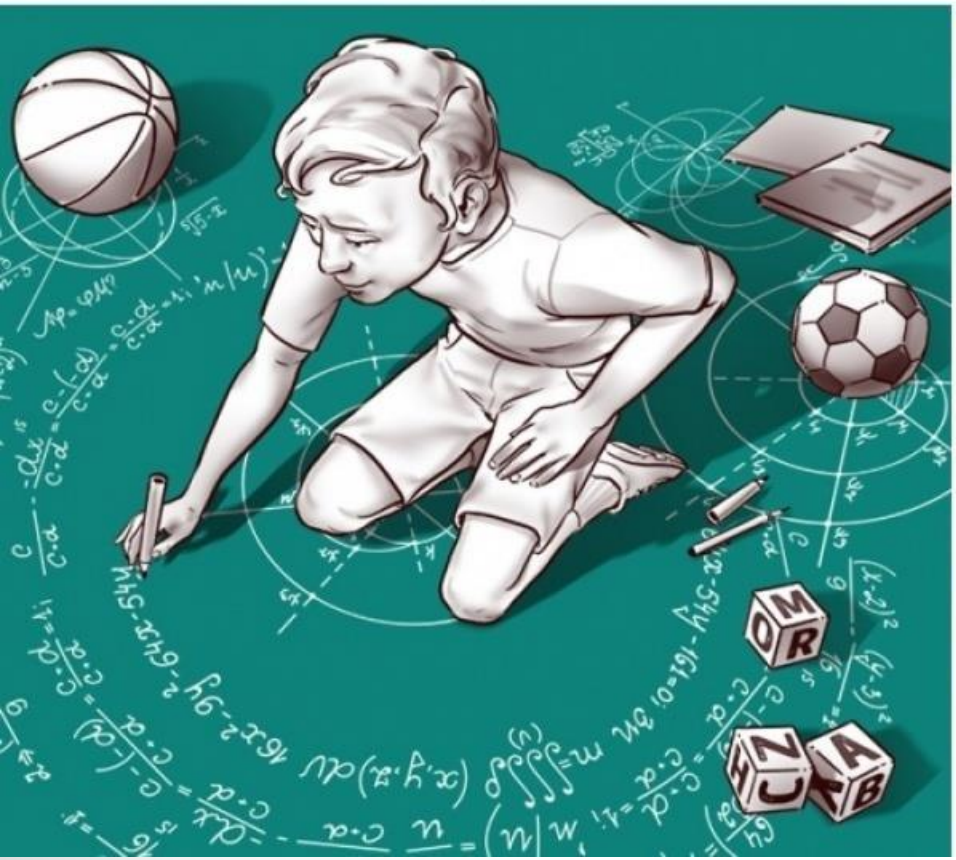
- Medicine requires us to remember lots of information. There is a disease which allows people to do just that – hyperthymesia
- People can recall any moment of their lives in almost perfect detail
- They can remember whole books easily, or personal events from young ages
- All you have to do is give them a date and they would be able to tell you what day of the week it was, what they ate, wore, who they spent time with.



- The cause of this condition is unknown, although some differences in the brains of those who suffer from it were found via MRI
- As useful as it may sound, these people cannot forget anything, they cannot „turn it off". They cannot let go of moments that they wish would have never happened
- They are basically stuck in the past, always recalling memories, and that can be exhaustive for them, causing headaches and insomnia.



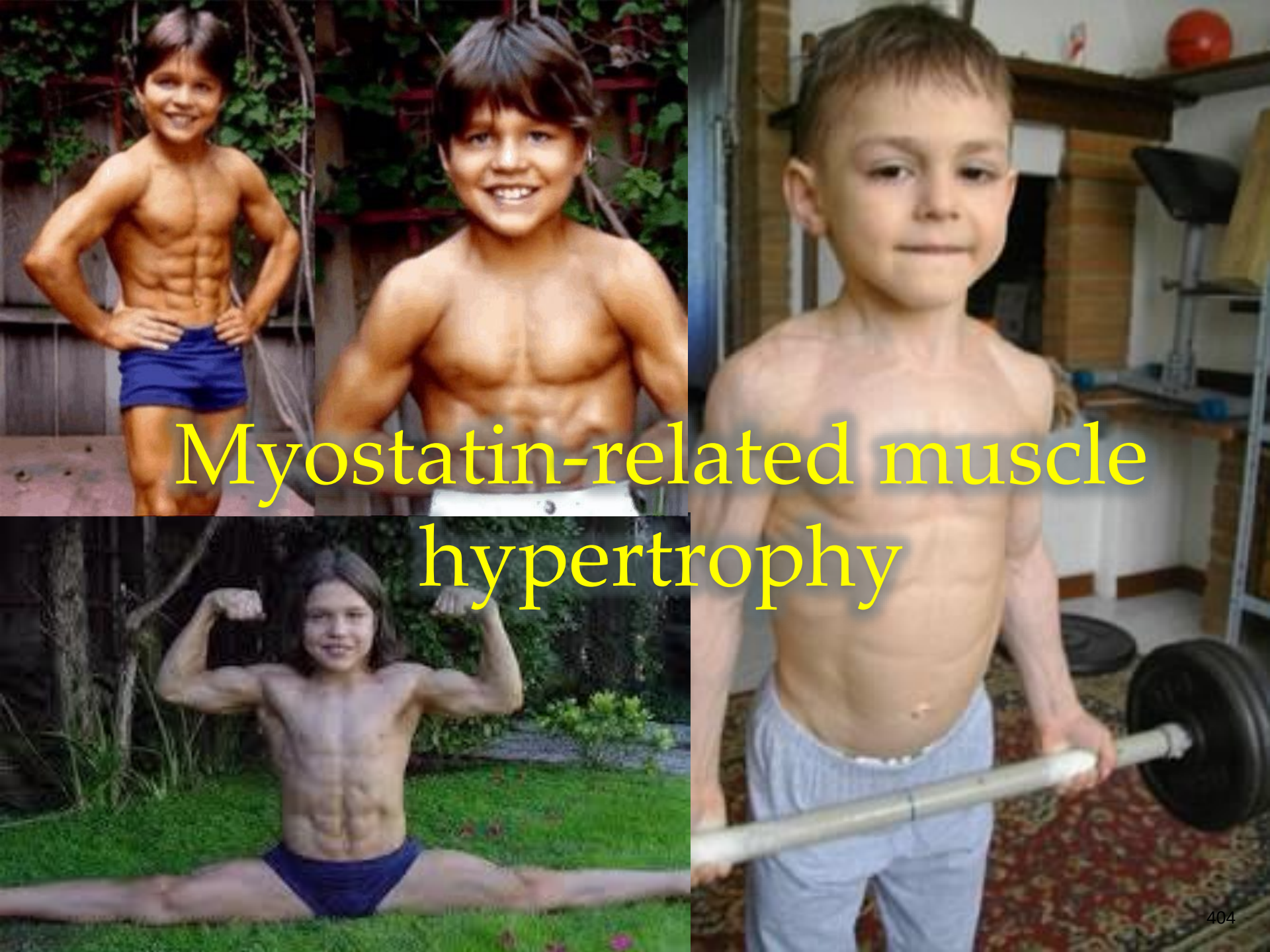
Savant syndrome



- A similar condition to this is **the savant syndrome**
- People who suffer from this disease have incredible memory capacity, or excel in art, music, calculus or spatial skills
- Some of them can calculate what day of the week it would be for any given date, almost instantly
- Despite such capabilities, usually they are antisocial, and half of them suffer from autism, while the other half often has some sort of injury or disease of the nervous system.

- **On the other hand, there is a disease which can give you super strength.** ***Myostatin-related muscle hypertrophy*** **results from a mutation of a gene, which normally codes myostatin, that restrains muscle growth, so that the muscles do not grow too large.**

- **The result? The muscle mass is almost twice the normal, with increased strength too. The intellect is not affected, and there does not seem to be any downside to this so far, but the disease is pretty new.**


Myostatin-related muscle hypertrophy

- So far we have super intellect and strength, but superheroes sometimes have incredible regeneration capacities as well. And this exists in the real world too.

- It is called the *fibrodysplasia ossificans progressiva* or stone man syndrome, for a good reason. They regenerate from any damage quickly, but not in a good way.

- They become living statues, as any injury is ossified. The joints eventually become frozen in place, muscles are replaced and any movement is limited, while the body seemingly creates a second skeleton. Not only that, but any surgical removal of the ossified tissue is replaced by more of the same.

Fibrodysplasia ossificans progressiva

- There are other diseases as well.
- Some people cannot feel pain, which is incredibly useful, except they can accidentally bite their tongues off or fail to realize they have any injury.
- Others cannot feel fear, either due to a genetic disease or theoretically due to the removal of the adrenal glands.
- Once again, only advantages until they fail to recognize a threat.

IN CONCLUSION…

Sometimes diseases can enhance us, but maybe superpowers aren't what we should seek. Usually there is a downside to them, and when we see that, we realize that we were perfectly built, imperfect as we are.

We shouldn't even aspire to be superheroes. We can be heroes everyday, through the little things we do for others, which we might not even always realize.

So let's be just what we are best at … let's be simply … humans.

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Photos from https://images.google.com/

MUSIC – A THERAPIST

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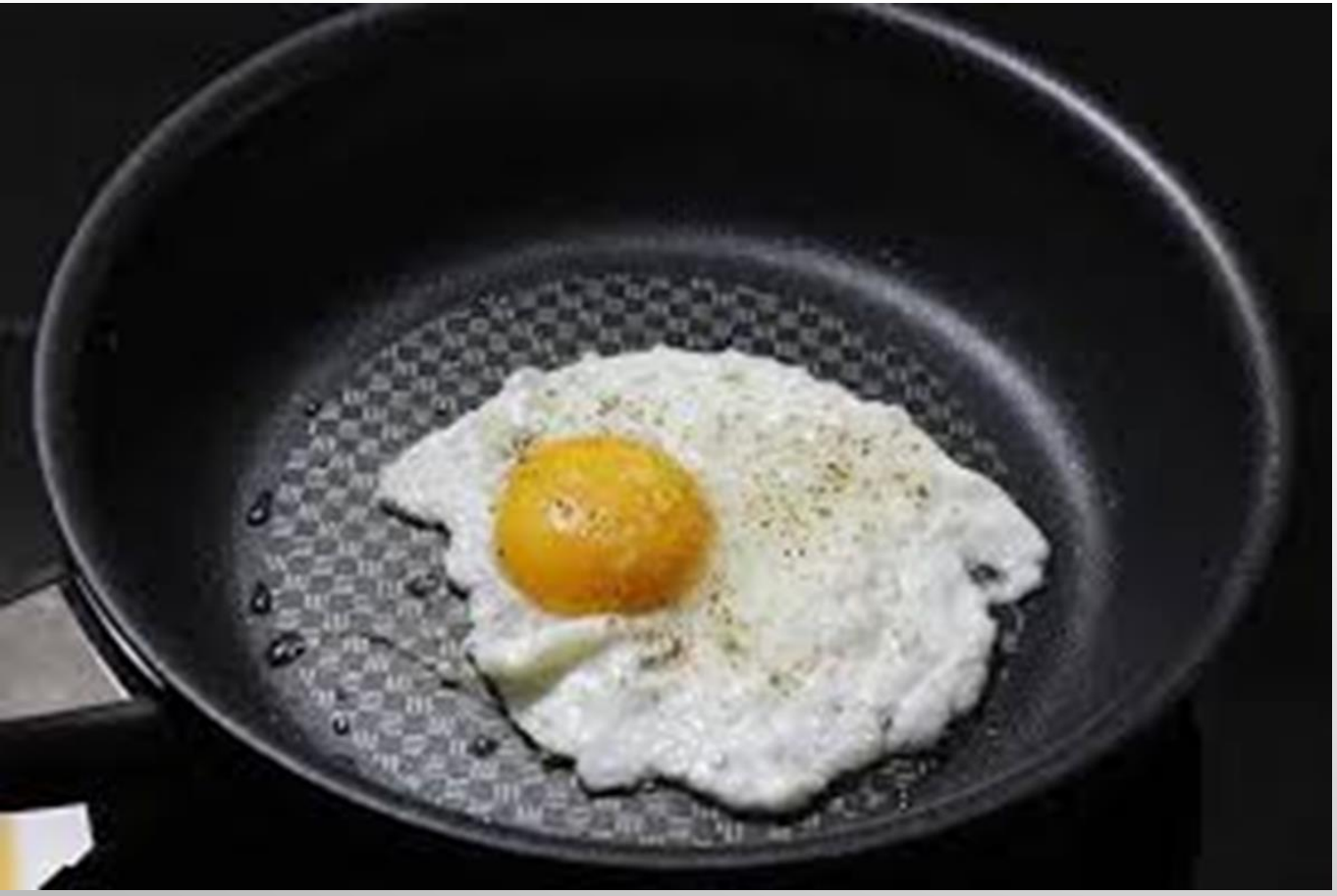
TOPICS

- HOW MUSIC AFFECTS OUR BRAIN
- HOW MUSIC CAN HELP YOU TO LIVE LONGER
- THE MOZART EFFECT FOR THE UNBORN BABIES
- HOW TO IMPROVE YOUR LEARNING SKILLS
- HOW MUSIC CAN AFFECT OUR BODY PHYSIOLOGY
- MUSIC, AN EFFICIENT THERAPY

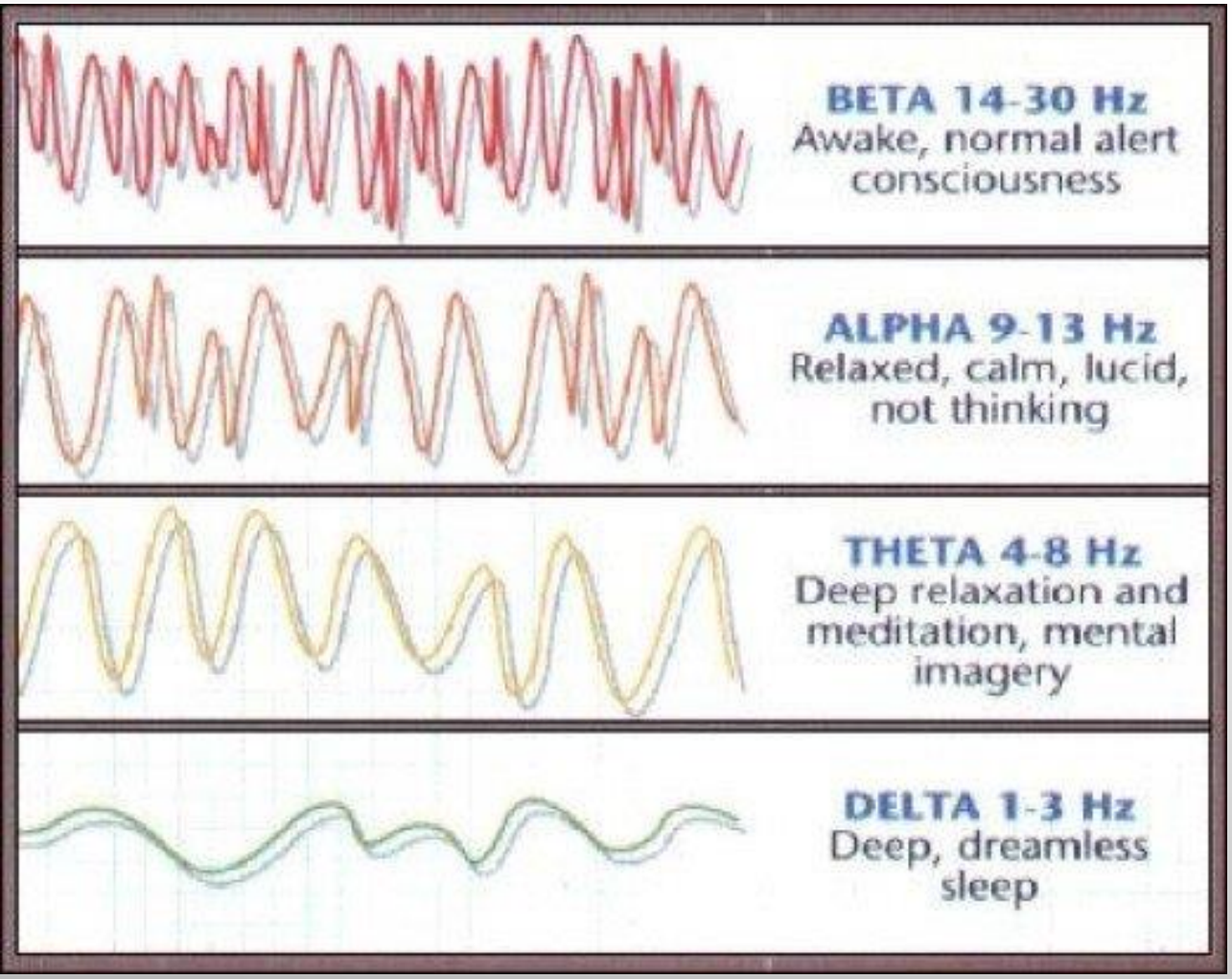
HOW MUSIC AFFECTS OUR BRAIN



Brain responses to music

- **RIGHT HEMISPHERE OF THE BRAIN**
  - ACTIVATED WHEN YOU *HEAR MELODIES WITH A VARIETY OF PITCH AND TIMBRE*
- **LEFT HEMISPHERE OF THE BRAIN**
  - "LIGHTS UP" WHEN YOU LEARN TO *READ MUSIC, UNDERSTAND KEY SIGNATURE AND NOTATION, AND FOLLOW THE SEQUENCE OF NOTES*

Music can equalize your brain waves



Beta waves activate in your frontal lobe area of rational thinking, analyzying, and other cognitive processes.

When we listen to music with higher frequency and lower frequency, our brain activates alpha waves and our frontal lobe inactivates the area of rationality and the unclear thinking takes control.

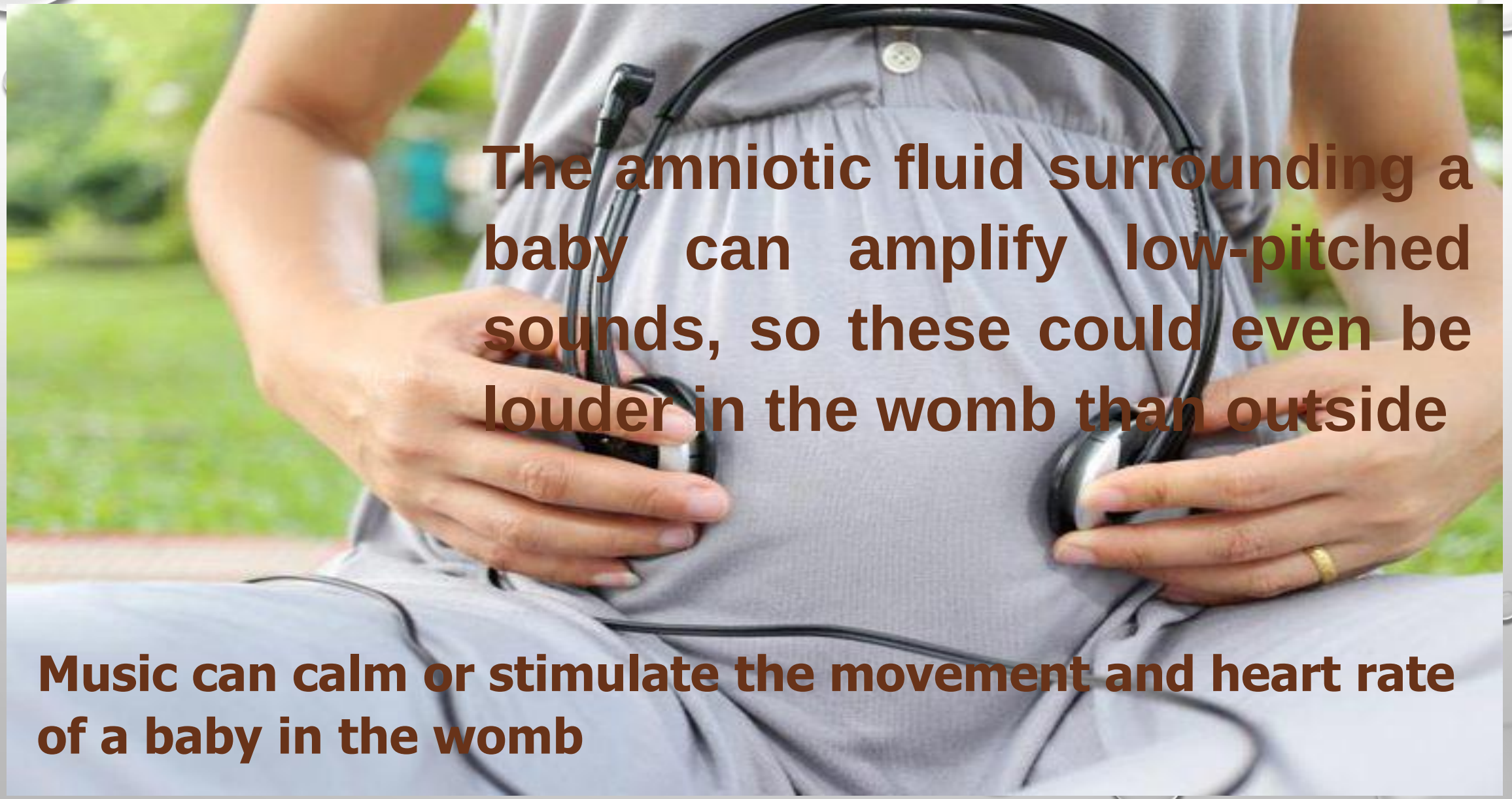
HOW MUSIC CAN AFFECT OUR LONGEVITY

Not Cindy's Auntie, but it's never the less!

HERE'S HOW MUSIC TO YOUR EARS CAN ADD ON YEARS

- IN THE PAST FEW DECADES, RESEARCHERS HAVE FOUND THAT SLOW, SOOTHING MUSIC IS GENERALLY BENEFICIAL.
- ANESTHESIOLOGISTS REPORT THAT THE LEVEL OF STRESS HORMONES IN THE BLOOD *DECLINES SIGNIFICANTLY IN THOSE LISTENING TO RELAXING, AMBIENT MUSIC* – IN SOME CASES REPLACING THE NEED FOR MEDICATION. THOSE HORMONES INCLUDE ADRENOCORTICOTROPHIC (ACTH), PROLACTIN, AND HUMAN GROWTH (HGH) HORMONE. POLITICAL LEADERS, TRIAL LAWYERS, SURGEONS, MOMS AND OTHER PEOPLE WHO OPERATE UNDER GREAT STRESS INTUITIVELY SENSE THE POWER OF MUSIC TO CALM AND RELAX.

HOW MUSIC IMPACTS BABIES



The amniotic fluid surrounding a baby can amplify low-pitched sounds, so these could even be louder in the womb than outside

Music can calm or stimulate the movement and heart rate of a baby in the womb

A baby can begin to hear sounds at about 17 weeks gestation, typically around the point when the mother begins to feel the first tiny flutters of movement and before the baby's sex is clearly identifiable. By 26 weeks, the baby's heartbeat will speed up in response to sounds, including music, that come from outside the womb. At 33 weeks gestation, babies have been observed breathing in time to music, indicating an awareness of the beat. By 38 weeks, a baby in the womb reacts differently to various types of music, showing different rates of fetal movement.

Mozart effect

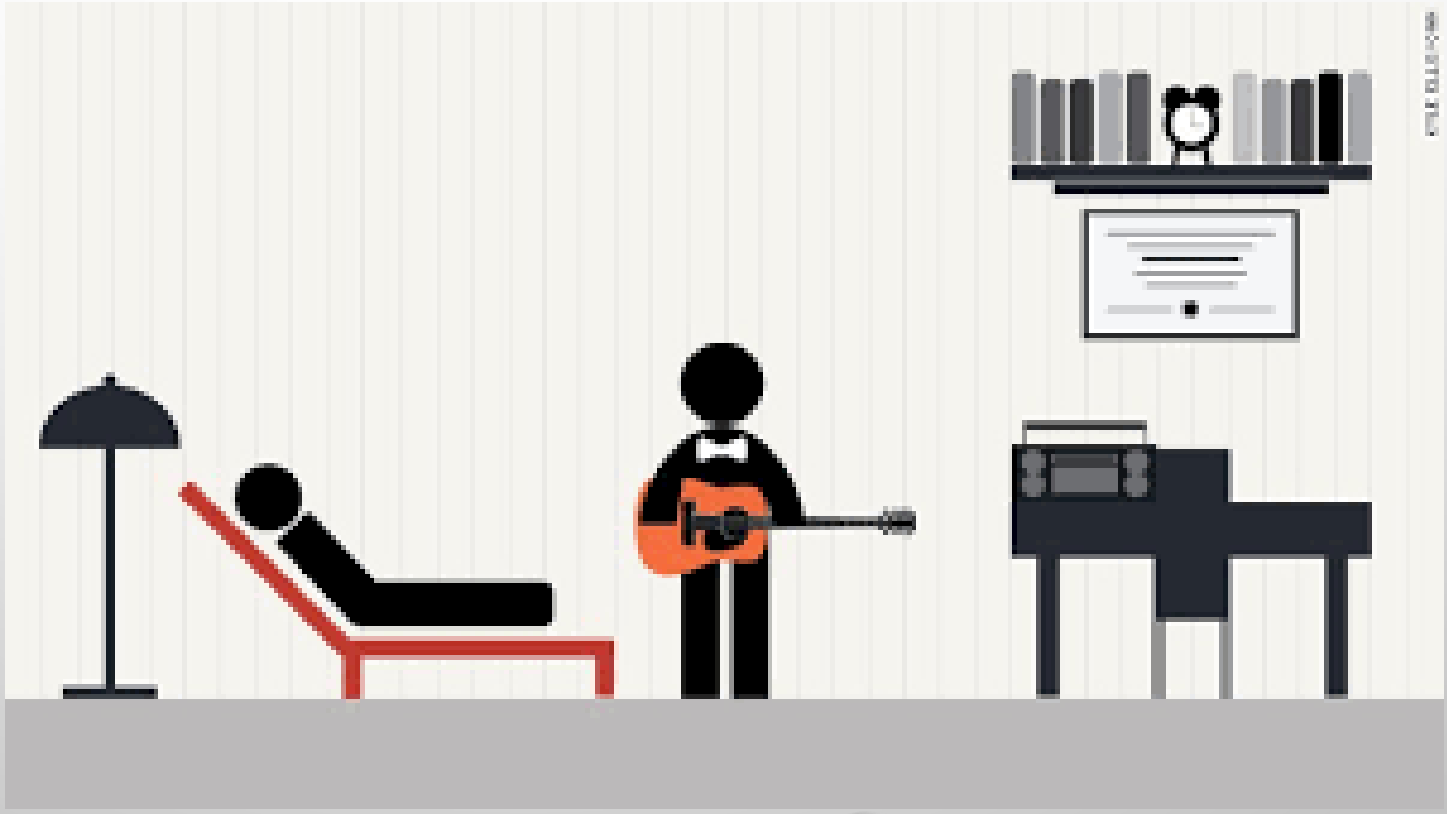
- Mozart's concerto from the "baroque" period has positive effects on the amplitude and frequency of brain waves

Premature infants who listen to classical music in their intensive care units gain more weight, leave the hospital earlier, and have a better chance of survival.

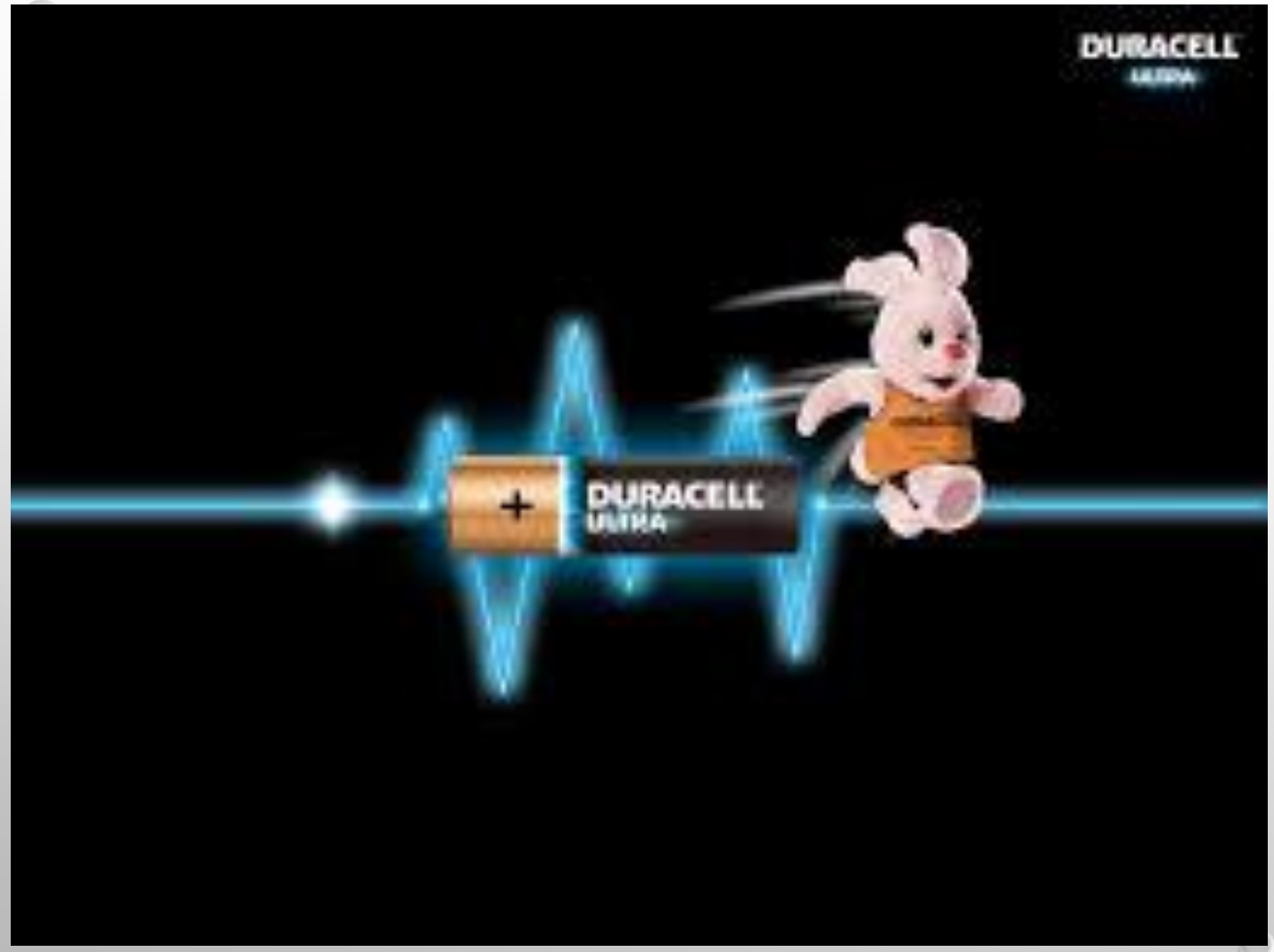
PLAYING A MUSICAL INSTRUMENT

When you learn new things, you give your brain a workout, so why not learn a new instrument? Studies have found that students who take music lessons have increased IQ levels, and even show improvement in their nonmusical abilities. And when you play a wind instrument, such as the saxophone, flute, trumpet, trombone, clarinet or even a penny whistle, you get the added benefit of improved lung capacity.

MUSIC THERAPY



Music is a natural energizer



The faster the music, the faster the heart will beat; the slower the music, the slower the heart beats, all within a moderate range.

As with breathing rates, a lower heartbeat creates less physical tension and stress, calms the mind, and helps the body heal itself.

Music recall memories, it improves cognitive functions for patients with Alzheimer's disease.

Music, a painkiller

Music is an effective therapy for pain management; it speeds up post-stroke recovery, chronic headaches and migraines remedy.

Oh Danny boy, the pipes, the pipes are calling
From glen to glen, and down the mountain side.
The summer's gone, and all the roses falling,
Tis you, Tis you must go and I must bide.

But come ye back when summer's in the meadow,
Or when the valley's hushed and white with snow,
And I'll be here in sunshine or in shadow,
Oh Danny boy, oh Danny boy, I love you so.

But when ye come, and all the flowers are dying,
If I am dead, as dead I well may be,
You'll come and find the place where I am lying,
And kneel and say an Avé there for me.

And I shall hear, though soft you tread above me,
And all my grave will warmer, sweeter be,
For you will bend and tell me that you love me,
And I shall sleep in peace until you come to me!

Frederic Weatherly – Danny Boy

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