



# THE HEARING

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# THE TASK

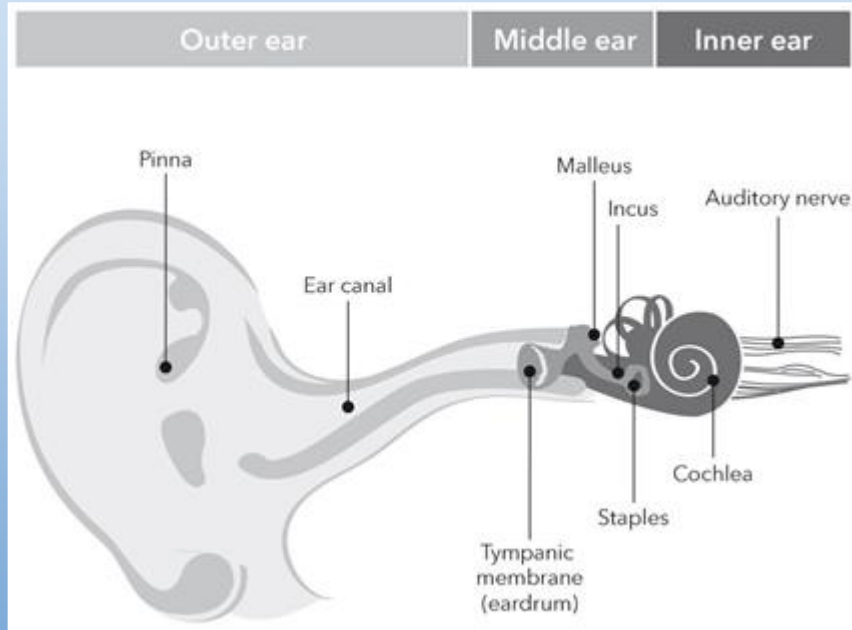
EACH SPEAKER CAN PRONOUNCE A VOWEL ON SEVERAL PITCHES, YET A LISTENER IS LIKELY TO RECOGNIZE THE PHONEME (E.G. /O:/ OR /U:/). ASTONISHING AUDITORY ILLUSIONS (E.G. YANNY AND LAUREL), SO CALLED MONDEGREENS, AND EXPERIENCES OF PERSONS WITH POOR HEARING DEMONSTRATE NEVERTHELESS THAT LISTENERS PERCEIVE SOUNDS, WORDS AND PHRASES DIFFERENTLY. PROPOSE A PROBLEM CONCERNING SPEECH PERCEPTION, MISHEARING, OR PHYSICAL DIFFERENCES BETWEEN SOUNDS OF SPOKEN LANGUAGE.



# THE ROLE OF HEARING IN OUR LIFE



# HOW WE HEAR: A LITTLE BIT ABOUT EAR

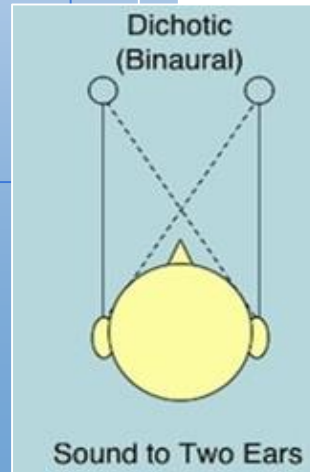
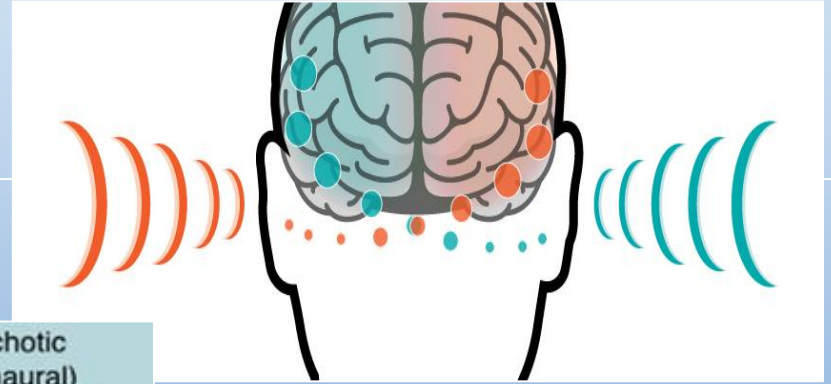


THE EAR IS AN AMAZING AND INCREDIBLY COMPLEX ORGAN THAT. THE HUMAN EAR HAS THREE PARTS - THE OUTER, MIDDLE, AND INNER EAR.



# BINAURAL HEARING: TWO EARS HEAR BETTER THAN ONE

NATURE GAVE US TWO EARS FOR ONE REASON: BINAURAL HEARING, OR HEARING WITH BOTH EARS, HELPS US TO LOCALIZE SOUNDS NO MATTER WHERE THEY COME FROM.



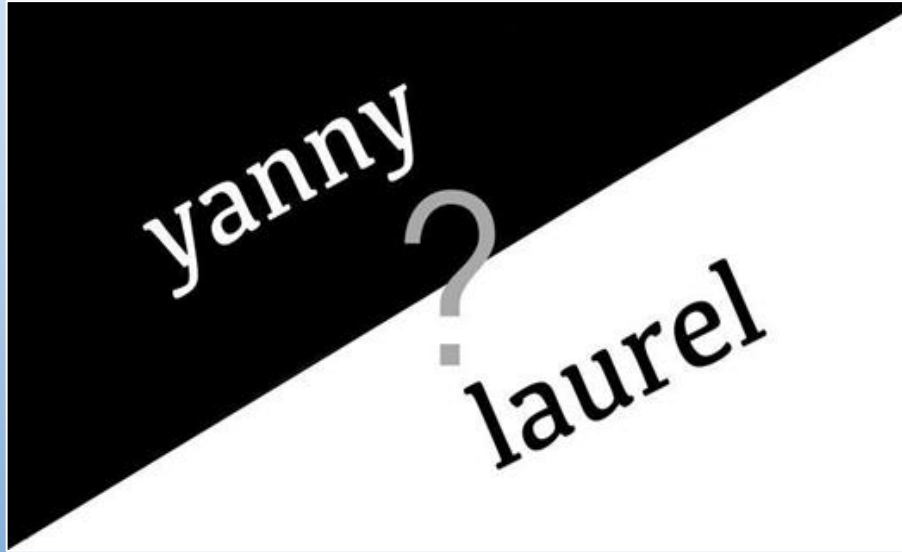
# INTERESTING FACTS ABOUT HEARING



1. THE EAR IS AN AMAZING AND INCREDIBLY COMPLEX ORGAN THAT PERFORMS A REMARKABLE TASK OF HEARING.
2. HEARING LOSS IS NOT LIMITED TO OLDER PEOPLE.
3. EARWAX IS REALLY GOOD FOR YOUR HEARING.
4. THE ORGAN OF HEARING ALWAYS WORKS, EVEN WHEN YOU SLEEP.
5. THE ORGAN OF HEARING IS ONE OF THE KEY COMPONENTS OF THE BODY'S BALANCE SYSTEM.



# THE ILLUSION OF HEARING



ONE OF THE MOST POPULAR VERSIONS IS THE ONE RELATED TO THE SOUND FREQUENCY.

AS A RESULT, PEOPLE WHO ARE MORE SENSITIVE TO HIGH-FREQUENCY SOUNDS HEAR "YANNY" AND OTHERS HEAR "LAUREL".

IT IS ALSO REPORTED THAT OLDER PEOPLE HEAR ONLY ONE VARIANT (USUALLY "YANNY"), AS HEARING DETERIORATES OVER TIME AND CAN NO LONGER INTERPRET SOUNDS AMBIGUOUSLY.





# HOW SOUNDS AFFECT PEOPLE



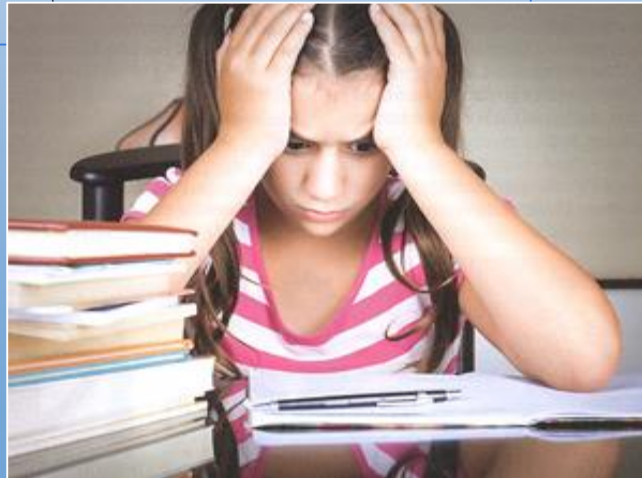
THE SOUNDS OR SETS OF SOUNDS THAT TRIGGER DIFFERENT REACTIONS IN THE BODY ARE WHAT WE CALL "AUDIO TRIGGERS". THE MOST TELLING EXAMPLE IS THE GRINDING OF A FORK ON A PLATE. MANY PEOPLE FROWN INVOLUNTARILY WHEN THEY HEAR THIS SOUND. THE OPPOSITE EFFECT IS BORNE BY THE MORNING SINGING OF BIRDS. IT OFTEN CAUSES PEACE.





# INVESTIGATION WITH EXTRANEOUS SOUND

ENVIRONMENTAL PSYCHOLOGIST ARLINE BRONZAFI CONDUCTED RESEARCH IN A NEW YORK SCHOOL IN THE 1970S. HE WATCHED THE GRADES OF STUDENTS FROM TWO CLASSES ON OPPOSITE SIDES OF THE BUILDING - IN ONE THE CHILDREN STUDIED IN SILENCE, WHILE THE OTHER WAS CONSTANTLY HEARD THE NOISE OF PASSING TRAINS. BY THE SIXTH GRADE, THE STUDENTS IN THE CLASSROOM NEAR THE RAILROAD WERE ALMOST A YEAR BEHIND THE CURRICULUM COMPARED TO THE CHILDREN IN THE "QUIET" CLASS.



# DIFFERENT RESEARCHES

A SIMILAR SITUATION IS DEVELOPING IN MODERN OPEN SPACES. ACCORDING TO A 2014 STUDY, WORKERS CAN LOSE UP TO 86 MINUTES A DAY DUE TO DISTRACTING NOISE. BUT THAT DOESN'T MEAN SILENCE IS A ONE-STOP SOLUTION FOR INCREASING PRODUCTIVITY. IN ANOTHER STUDY, ONE OF THE GROUPS OF PARTICIPANTS IN THE BACKGROUND OF A QUIET NOISE COPEL BETTER WITH SOLVING CREATIVE PROBLEMS THAN THE SUBJECTS IN COMPLETE SILENCE.

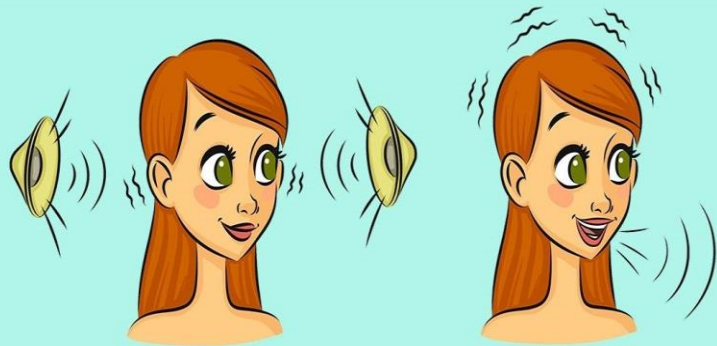


# WHY DO WE HEAR THE WORLD DIFFERENTLY

THERE ARE SEVERAL FACTORS THAT EXPLAIN THE DIFFERENCES IN OUR PERCEPTION.

1. PERSONAL EXPERIENCE
2. PHYSIOLOGY AND DISEASE
3. CONTEXT





## WHY DO WE HEAR OUR OWN VOICE DIFFERENTLY?

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### When you hear your voice when speaking:



- The internal bone vibrations resonate in your skull and change the perception of your voice.
- Your voice sounds softer and lower.

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### When you hear your voice on a recording:

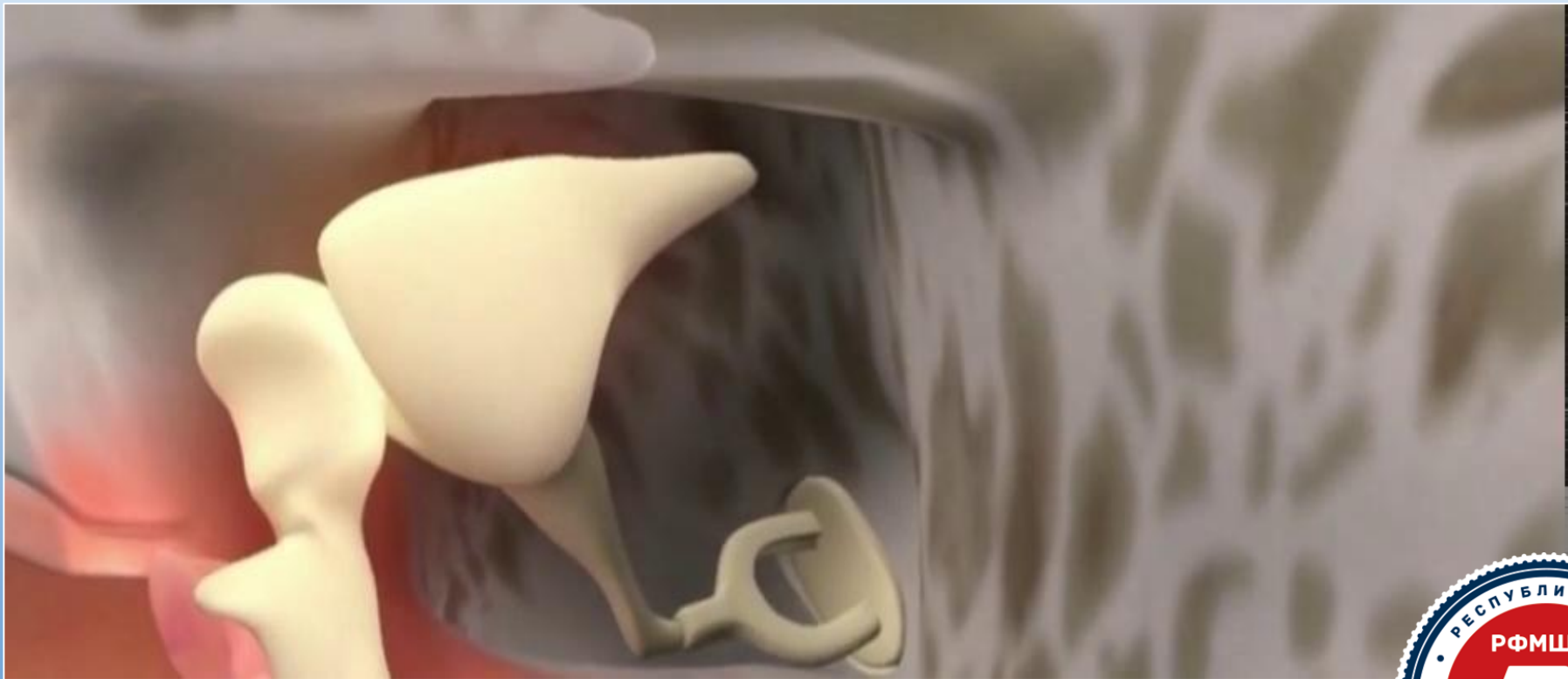


- The sound vibrations enter our ear and meet our ear drum.
- Your voice is sharp and strong.

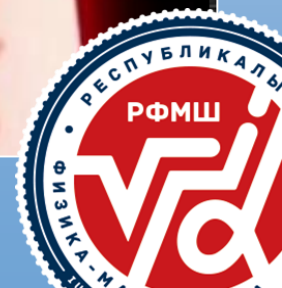
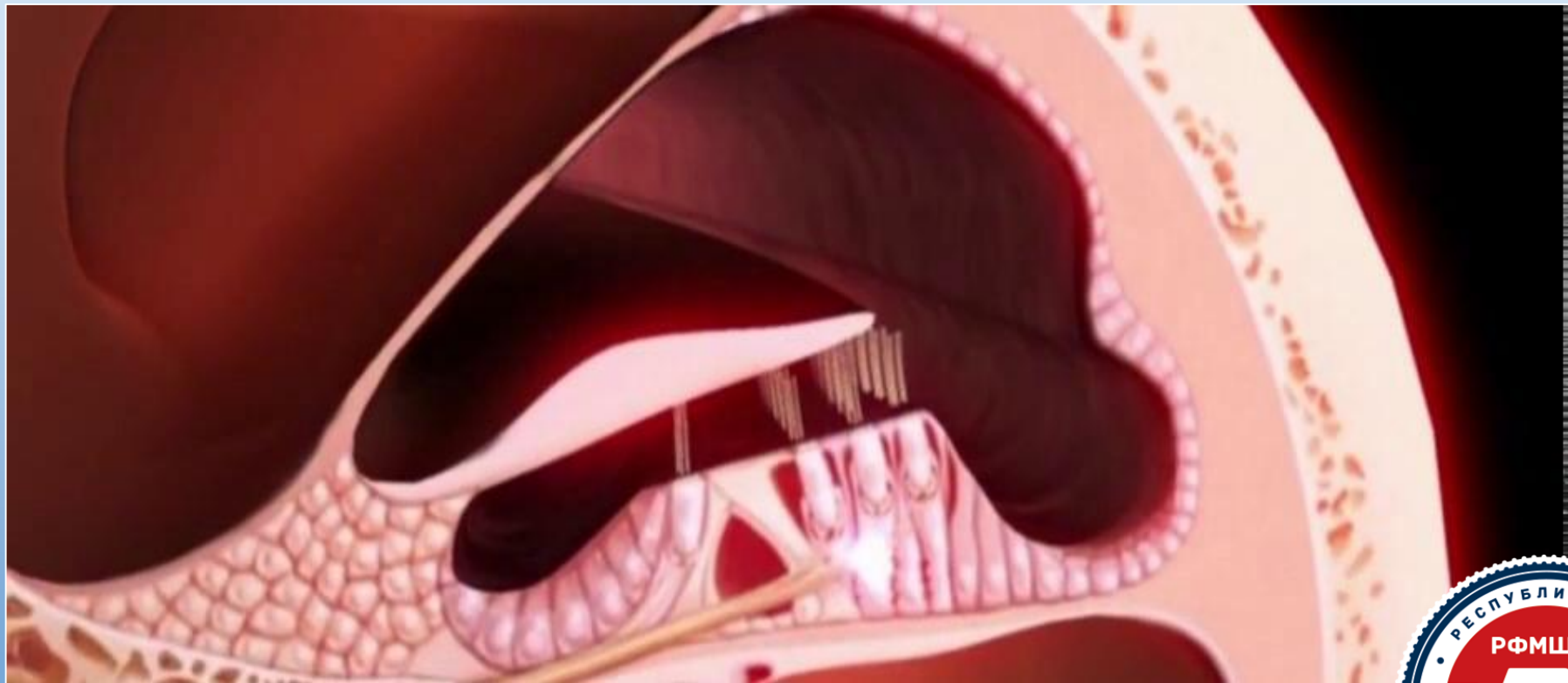




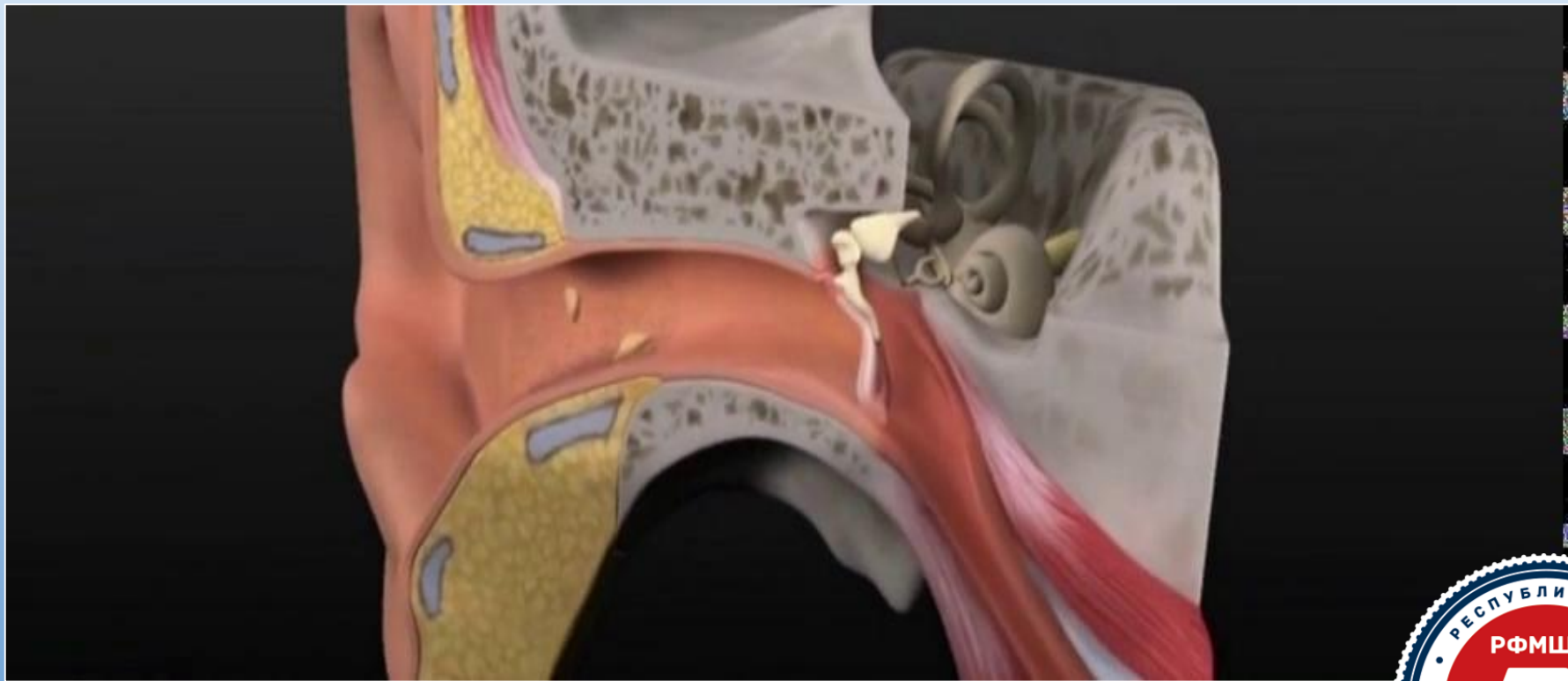
# HOW THE EARING WORKS











THANK YOU FOR YOUR ATTENTION!

“EVERYONE HEARS ONLY, WHAT HE UNDERSTANDS” - JOHANN WOLFGANG VON GOETHE

