

4 Georg BÉKÉSY or the mechanism of hearing

- In this lecture the 3 main tasks of the human auditory system will be investigated: The ear as a sound localizer, a passive receiver and an active completer.
- The localization of sound, i.e. the directional hearing is explained by the interaural time difference between traveling sound paths.
- The overall passive hearing mechanism consists of sound waves in the outer ear causing mechanical vibrations in the middle ear, and eventually nerve impulses that travel to the brain to be interpreted as sound.
- The ear with its neural networking of haircells with the brain is an active organ, not only in the sense of interpretation but also in the sense of: insufficient data can be completed.