

11-3)

The human ear canal is about 2.5 cm long, open to the air on the outside, but sealed by the *tympanum* or *eardrum* in the inside. Hearing is therefor especially sensitive at frequencies around 3500 Hz.

- a) Explain why.
- b) At what other frequencies ($20 < f < 20,000$ Hz) might we expect improved hearing for the same reason?

Totally trivial: The only bones in your body without an actual Latin name are the *stirrups* in your ears; equine stirrups did not appear in Europe until the Middle Ages.