Both the Weber and Rinne tests are most valuable in the patient with a documented hearing loss (see above). These tests are particularly focused on determining whether the loss is sensorineural or conductive. In the Weber test, the stem of a tuning fork is placed gently against a midline structure of the skull (i.e., the maxillary incisor teeth or vertex of the cranium or forehead) and the patient is asked where s/he hears the sound. Sound is transmitted to both ears through the air but particularly through the vibrations of the bones of the skull. If sound is transmitted to both sides equally, the sound is heard in the midline and it can be presumed that the conduction and neural apparatus is intact. With neural deafness, the sound transmits best to the normal side and the patient lateralizes the sound to that side. With conduction deafness, sound transmits best to the side of the deafness. This is thought to occur because ambient sound is prevented from getting to the cochlea on the blocked side. This causes the nervous system to amplify sounds on that side by sensitizing cochlear transduction. You can demonstrate this yourself by plugging an ear with your finger, causing conduction deafness, and then humming. The sound will be heard better on the occluded side. By the way, you notice the effects of ambient sound on hearing acuity when you must talk to a friend at the top of your voice in a noisy, crowded room and then continue talking and walk into a silent room where you find yourselves shouting at each other.

Rinne test