Also assess the ears for hygiene. An otoscope is not necessary for looking into the external canal to note the presence of **cerumen**, a waxy substance produced by the ceruminous glands in the outer portion of the canal. Cerumen is usually yellow-brown and soft. If an otoscope is used and any discharge is visible, note its color and odor. Avoid transmitting potentially infectious material to the other ear or to another child through hand washing and using disposable specula or sterilizing reusable specula between each examination.

## Inspection of Internal Structures

The head of the otoscope permits visualization of the tympanic membrane by use of a bright light, a magnifying glass, and a speculum. Some otoscopes have an attachment for a pneumonic device to insert air into the canal to determine membrane compliance (movement). The speculum, which is inserted into the external canal, comes in a variety of sizes to accommodate different canal widths. The largest speculum that fits comfortably into the ear is used to achieve the greatest area of visualization. The lens, or magnifying glass, is movable, allowing the examiner to insert an object, such as a curette, into the ear canal through the speculum while still viewing the structures through the lens.

### Positioning the Child

Before beginning the otoscopic examination, position the child properly and gently restrain (sit on parent's lap and hold parent's hands) if necessary. Older children usually cooperate and do not need restraint. However, prepare them for the procedure by allowing them to play with the instrument, demonstrating how it works, and stressing the importance of remaining still. A helpful suggestion is to let them observe you examining the parent's ear. Restraint is needed for younger children, because the ear examination upsets them (see Atraumatic Care box).

### Atraumatic Care

#### Reducing Distress from Otoscopy in Young Children

Make examining the ear a game by explaining that you are looking