

## TEST INSTRUCTIONS FOR THE WELCH ALLYN MICROTYPMP®3

### SELECT A TIP

1. Select a large enough tip to seal the entrance to the ear canal.
2. Push the tip onto the probe. Make sure it is fully seated.

### TEST

3. Pick up the handle and press **TEST** →. Either "OPEN 226" or "OPEN 1000" will display.
4. To switch to the other frequency, press both the **R** Right memory and **L** Left memory buttons on the handle simultaneously until the desired frequency displays. Press **TEST** → to confirm the frequency.
5. Grasp the patient's pinna. Pull gently back to straighten the ear canal. Both you and the patient should be motionless during the test.
6. Press the tip firmly against the ear canal opening. Once you achieve a seal, the TEST message displays. The test is complete when the last data point (226 Hz) or when a "Quick-Interpretation" message (1000 Hz) displays.

### STORE/RECORD

7. 226 Hz: Store test data in the handle by pressing the memory button for the tested ear: **R** or **L**.
- 1000 Hz: Record the "Quick-Interpretation" message and value on the MicroTympanometer Screening Results card.

### PRINT (226 HZ)

8. Place the handle in the Printer/Charger. The green CHARGE indicator illuminates.
9. Press .

### TIPS FOR SUCCESS

#### BIGGER IS BETTER

When using a tympanometric device with a probe designed for an external seal, such as the MicroTympanometer, a bigger tip is generally better since the seal is obtained from outside the external auditory canal, not inside.

#### USE THE "SCOOP" METHOD

Attain best result by "scooping" the probe in behind the tragus.

#### TRY A FAMILIAR ANGLE

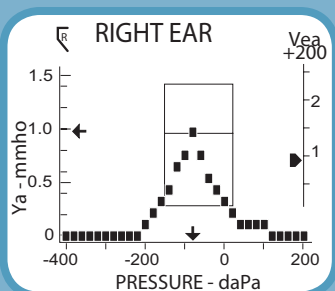
The head of the MicroTympanometer handle is angled at 15°—the same angle as a Welch Allyn otoscope. Try holding the MicroTympanometer at the same angle required for an otoscopic view.

#### PRACTICE, PRACTICE, PRACTICE

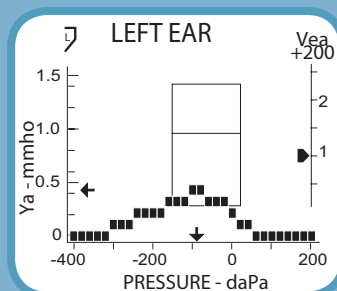
For those who are new to tympanometry, or to this type of hand-held device, there are benefits to practicing the technique a few times. This builds confidence and skill, and makes getting a seal quite easy.



## INTERPRETING 226-HZ RESULTS (tympanograms and associated clinical conditions)

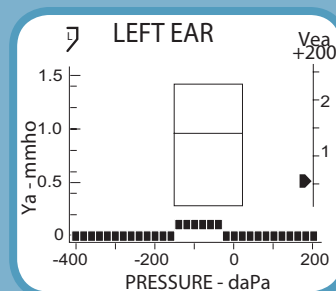


**Normal middle ear**



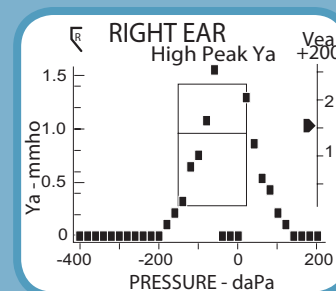
**Low admittance—Normal peak Ya, abnormal gradient**

- Otitis media with effusion
- Tympanosclerosis



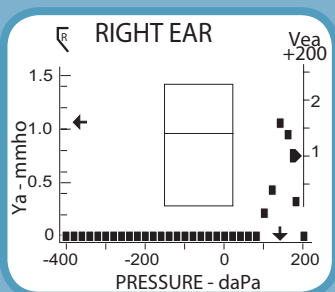
**Low admittance—Low peak Ya**

- Otitis media with effusion
- Tympanosclerosis
- Cholesteatoma
- Middle ear tumor



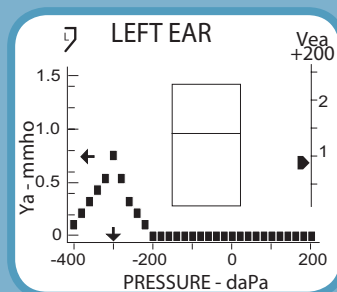
**High admittance—High peak Ya**

- Tympanic membrane abnormalities
- Ossicular disruption



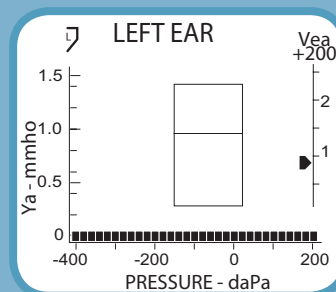
**Positive middle ear pressure**

- Acute otitis media



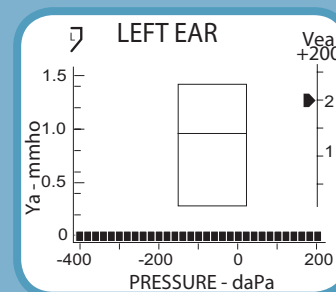
**Negative middle ear pressure**

- Eustachian tube dysfunction
- Cold, allergies or vigorous sniffing



**Flat tympanogram—Normal ear canal volume**

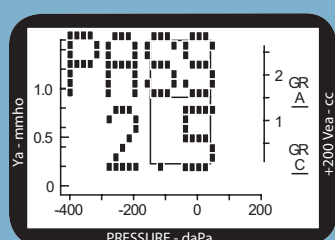
- Middle ear effusion



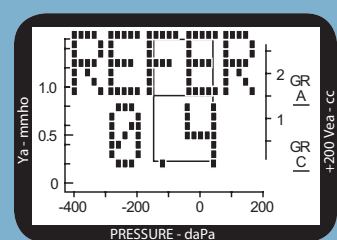
**Flat tympanogram—Increased ear canal volume**

- Patent tympanostomy tube
- Perforated tympanic membrane

## INTERPRETING 1000-HZ RESULTS

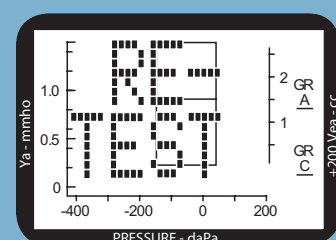


**PASS—Peak Ya ≥ 0.6 mmho**



**REFER—Peak Ya < 0.6 mmho**

- Middle ear effusion



**RETEST—Try again!**

**NOTE:** Multiple RETEST results can be considered a REFER.

**Welch Allyn®**