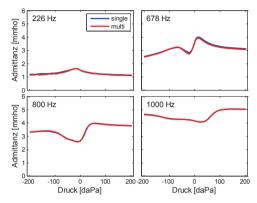
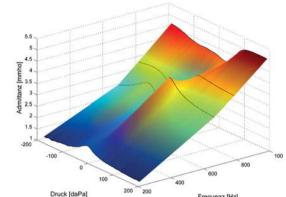
## **MULTIFREQUENCY TYMP**

INVENTED BY PATH MEDICAL





#### A FULL ASSESSMENT OF THE MIDDLE EARS REFLECTANCE AND CONDUCTANCE CAN BE MADE WITHOUT WIDEBAND REFLECTANCE DEVICES

The most common probe tone frequency used in tympanometry is 226 Hz. Using 226 Hz, well known and categorized tympanogram shapes can be obtained, especially in adult patients. When testing infants younger than four months, a probe tone frequency in the range 660-1000 Hz is recommended. In many cases though, the optimal probe tone frequency is not a well established value. Multi frequency tympanometry is said to improve on middle ear diagnostics but in practice the "standard" measurement is performed and analyzed later on. However, a subset of multifrequency information - based on the relevant and well established frequencies can help in daily practice to speed up and improve the diagnostics. Therefore PATH MEDICAL introduced the simultaneous stimulation of 226 Hz, 668 Hz, 800 Hz and 1000 Hz whilst testing Tympanometry. In one single recording four different traces are obtained - ready for immediate evaluation by the doctor. No need to spend more time or money for postprocessing of 3D graphs to receive the graphs which are used for diagnostics.

Read more on multifrequency tympanometry online:



## TYMPANOMETRY MODULES ARE AVAILABLE AS STANDARD OR UPGRADE ON THESE PLATFORMS:

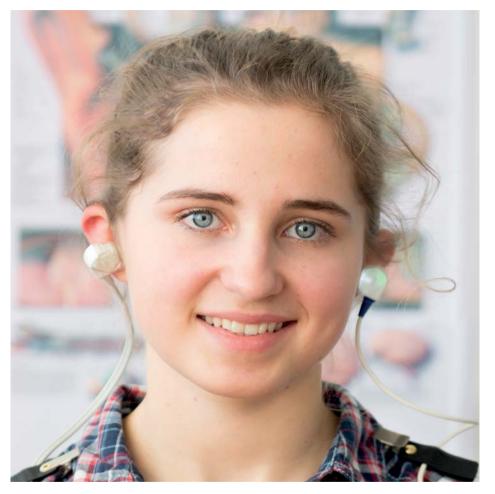


### **Made in Germany**



#### 100837-01\_MA\_TympanometryMF\_EN\_01, September 2016

# **MULTIFREQUENCY TYMPANOMETRY**



THE SOUND OF SCIENCE.



# **FACTS & ADVANTAGES**

// TYMP DIAGNOSTIC

## INTERACTIVE, ON-SCREEN CARTOONS ARE AVAILABLE FOR ALL OAE AND TYMPANOMETRY TESTS!



### THE DOWNSIDE OF WIDEBAND REFLECTANCE DEVICES

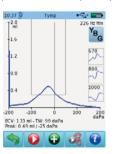
Other tympanometers on the market ad- SENTIERO uses multiple sine (pure) tones nical value in daily practice.

- The pump unit speed must be low or me- pump speed and no problem with unindium speed for this type of recording.

- The result screen which is interpre- SENTIERO is a powerful diagnostic deted by the specialist is derived in-vice with superb accuracy & speed. directly from the reflectance curve by cutting through the 3D image... - Since the acoustic reflex threshold is generally lower for broadband stimuli, there is an increased risk of triggering the acoustic reflex during measurement! This is not desired since it would influence the curves. In addition, acoustic reflex testing cannot be done with wide band tympanometry.

### THE ADVANTAGE OF MULTIFREQUENCY TYMPANOMETRY

vertise a "wideband tymp" by showing (simultaneously presented) to generate nice 3D graphs. However there is very the tympanogram. There is no confusing little research evidence that this has a cli- "extra information" and the results to be interpreted are displayed immedia-Additionally it has important downsides: tely. Also, there is no limit regarding the tended triggering of the acoustic reflex.





Engage the younger patients in a game where they pretend to be a pilot. Pilots are calm and concentrated to navigate. To support this game, hand over the flight badge (supplied by PATH) before the test and then begin.

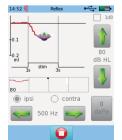
Automatically after the test or manually whilst testing (press the plane symbol) you can review

These are ready to print directly to pdf or label or to store in MIRA PC database. Note that the same tympanometry probe can be used for IPSI reflex as well as for DPOAE or TEOAE measurements. Speed up your examination by saving preparation time!

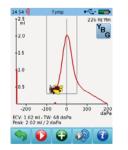




BEST FIT



RFFIFX



TYMP



IPSI & CONTRA

## **SENTIERO** //TYMP DIAGNOSTIC compared to //TYMP SCREENING

Impedance/Tympanometry/Reflex	Diagnostic	Screening
226 Hz tone	•	•
678, 800 Hz tones	•	
1000 Hz tone	•	optional upgrade
Multi frequency tympanometry (4 tones or 2 tones at once)	•	optional upgrade
Pressure range -300 to +300 daPa	•	•
Pressure range -600 to +400 daPa	•	
5 individually configurable presets	•	•
Y/B/G components view (admittance, susceptance, conductance)	•	
Auto Stop function (finish tympanogram recording if valid peak detected)	•	
ETF tests: (Non-) Perforated Eardrum, Patulous Eustachian Tube	•	
Tymp + Reflex automatic sequence	•	•
500, 1000, 2000, 3000, 4000 Hz, BB, HP, LP stimulus up to 105 dB HL	•	•
Ipsilateral reflex and automatic reflex threshold	•	•
Contralateral reflex	•	optional upgrade
Manual control and reflex decay testing	•	

### THE ONLY DEVICE WITH TYMP, OAE AND AUDIO

TEOAE	Selectable pass criteria and levels	Fixed pass criteria and levels
DPOAE	Selectable frequencies: 0.8 - 10 kHz Selectable pass criteria and levels	Fixed frequencies: 2, 3, 4, 5 kHz Fixed pass criteria and levels
FMDPOAE	•	•
DP THRESHOLD AUDIOGRAM	•	
AUDIO	Table or audiogram view Full frequency and level range 125 - 8kHz (HF option up to 16kHz with HDA300) Automatic, diagnostic and screening audiometry Optionally: speech and bone kit, freefield, inserts	Table format only 0.5, 1, 2, 4, 6 kHz Screening audiometry, air conduction only

Find the latest technical details online - https://pathme.de/downloads-2/#Further