

Description of the Phonetograph: (described by Rune Sterling, student of music)

The purpose of a Phonetography examination is to chart the clients extent of voice: How loud or soft the patient can reproduce the note and the pitch.

We strap a microphone on a device that ensures that the distance from the patient's mouth to the microphone is 30 cm.

As a help for the client to reproduce the exact note, we have a speaker that produces the note as similar to the human voice as possible. The client needs to maintain the note for approximately 4 seconds after the sound from the speaker has ended. The phonetograph has a built in filter that makes sure that no false notes are measured.

First the patient sings the note as loud as possible, then as soft as possible. It is very important that the note is sung on the vowel "a" as in head. Male clients start at the note /a/ at 220 hz and women start at the note /a/ at 440 hz.

Then the client sings upwards for example on the notes /a/, /c/, /e/, /g/ and so forth until the client reaches the limit. Then the client sings downward from the original note (/a/ 220/440 hz) until he/she can go no further. (It is possible to use all notes.)

On the screen we have a co-ordinate system where the notes of a European C-major scale, that is c-d-e-f-g-a-b-c, is written along the x-axis, and decibels up the y-axis. When the patient has sung a note, a dot will emerge in the co-ordinate system at the point of the note sung at the right amount of decibel.

When you have finished the procedure, the computer will draw lines between the dots and a model will emerge on the computer screen. On this model you can clearly see the range of the clients voice.