

# Package ‘AudioScatter’

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**Type** Package

**Title** Audiogram Scattergrams

**Version** 1.1.0

**Description** Creates pre- and post- intervention scattergrams based on audiometric data. These scattergrams are formatted for publication in Otology & Neurotology and other otolaryngology journals. For more details, see Gurgel et al (2012) <[doi:10.1177/0194599812458401](https://doi.org/10.1177/0194599812458401)>, Oghalai and Jackler (2016) <[doi:10.1177/0194599816638314](https://doi.org/10.1177/0194599816638314)>.

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**Encoding** UTF-8

**LazyData** true

**Imports** tidyverse, ggplot2, dplyr, scales, tibble, magrittr

**RoxygenNote** 7.3.2

**Suggests** testthat (>= 3.0.0)

**Config/testthat/edition** 3

**NeedsCompilation** no

**Author** Dorothy W. Pan [aut, cre],  
John S. Oghalai [aut]

**Maintainer** Dorothy W. Pan <[dorothy.pan@med.usc.edu](mailto:dorothy.pan@med.usc.edu)>

**Depends** R (>= 3.5.0)

**Repository** CRAN

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 AudioData

*AudioData*


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### Description

An example dataset containing the preop PTA, preop WRS, postop PTA, and postop WRS. You can load your own dataset containing the preop PTA, preop WRS, and potentially postop PTA and postop WRS. The variables are as follows:

### Usage

```
data(AudioData)
```

### Format

A data frame with rows and 4 columns

### Details

- PrePTA. preop pure tone average
- PreWRS. preop word recognition score
- PostPTA. postop pure tone average
- PostWRS. postop word recognition score

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 CalcChange

*CalcChange Calculate Change between Post and Pre PTA and WRS and put in appropriate column and row for scattergram.*


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### Description

Post-treatment change in PTA and WRS Calculate change in PTA Calculate change in WRS create new columns relating the change in WRS to the correct column for the scattergram. create new columns relating the change in PTA to the correct row for the scattergram.

### Usage

```
CalcChange(dTable)
```

### Arguments

dTable            table loaded from csv file including PrePTA, PreWRS, and possibly PostPTA, PostWRS.

### Value

new table with change in PTA and WRS and columns/rows they should go in for PostScattergram.

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dTable	<i>load dataset to dTable.</i>
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**Description**

load dataset to dTable.

**Usage**

dTable

**Format**

An object of class tbl\_df (inherits from tbl, data.frame) with 58 rows and 4 columns.

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dTablePost	<i>Calculate the audiogram changes and write to new table dTablePost</i>
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**Description**

Calculate the audiogram changes and write to new table dTablePost

**Usage**

dTablePost

**Format**

An object of class tbl\_df (inherits from tbl, data.frame) with 58 rows and 8 columns.

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SavePostScatter	<i>SavePostScatter</i>
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**Description**

SavePostScatter

**Usage**

SavePostScatter(dTablePost)

**Arguments**

dTablePost	table resulting from CalcChange with change in PTA and WRS, dPTA and dWRS, respectively, as well as the column and row dPTA and dWRS should go.
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**Value**

png file of postop scattergram

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SavePreScatter

*SavePreScatter*

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**Description**

SavePreScatter

**Usage**

SavePreScatter(dTable)

**Arguments**

dTable            table loaded from csv file including PrePTA, PreWRS, and possibly PostPTA, PostWRS.

**Value**

png file for preop scattergram.

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