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## Set up to run DPOAE analysis

Updated: 20 February 2024 - Fernando Aguilera de Alba Define the following variables according to your project  
ROOTdir = directory with your project  
CODEdir = directory with MATLAB files (Github)  
DATAdir = directory with data to analyze  
Chins2Run = list of subjects to analyze data  
Conds2Run = list of conditions to analyze data (baseline vs post)

Output: DPanalysis - analyzes RAW data to plot DPgram for Chins2Run and Conds2Run  
DPsummary - combines analyzed data to compare DPgrams between Cond2Run

```
close all;  
clear;
```

## User Defined:

```
Chins2Run={'Q438','Q445','Q446','Q447'};  
Conds2Run = {strcat('pre',filesep,'Baseline_1'),  
    strcat('pre',filesep,'Baseline_2'), strcat('post',filesep,'D2'),  
    strcat('post',filesep,'D7')};  
% Data and code directories  
EXPname = 'OAE';  
EXPname2 = 'DPOAE';  
if (ismac == 1) %MAC computer  
    ROOTdir =  
        strcat(filesep,'Users',filesep,'fernandoaguileradealba',filesep,'Desktop',filesep,  
            DATAdir = strcat(filesep,'Volumes',filesep,'FEFE',filesep,'DOD');  
else %if using WINDOWS computer..  
    ROOTdir =  
        strcat('C:',filesep,'Users',filesep,'aguiler1',filesep,'OneDrive -  
            purdue.edu',filesep,'Desktop',filesep,'DOD-Analysis',filesep,'Code  
            Archive');  
    DATAdir =  
        strcat('C:',filesep,'Users',filesep,'aguiler1',filesep,'OneDrive -  
            purdue.edu',filesep,'Desktop',filesep,'DOD-Analysis');  
end  
CODEdir = strcat(ROOTdir,filesep,EXPname,filesep,EXPname2);  
OUTdir = strcat(ROOTdir);
```

## Subjects and Conditions

```
%input1 = input('Would you like to perform DPOAE analysis (A) or  
    summary (S): ','s');  
input1 = 's';  
for ChinIND=1:length(Chins2Run)  
    for CondIND=1:length(Conds2Run)
```

---

```

        datapath =
strcat(DATAdir,filesep,'Data',filesep,Chins2Run{ChinIND},filesep,EXPname,filesep,
        calibpath = datapath;
        subj = Chins2Run{ChinIND};
        str = strsplit(Conds2Run{CondIND}, filesep);
        condition = strcat(str{1}, '-',str{2});
        % Check if MEMR analyzed data folder exist for selected chins
and time points
        outpath = strcat(OUTdir,filesep,'Analysis',filesep,EXPname);
        Outlist = dir(outpath);
        if isempty(Outlist) %create directory if it doesn't exist
            cd(OUTdir)
            mkdir('Analysis')
            cd(strcat(OUTdir,filesep,'Analysis'))
            mkdir(EXPname)
        end
        cd(outpath)
        Dlist=dir(Chins2Run{ChinIND});
        if isempty(Dlist) %create directory if it doesn't exist
            fprintf('Creating analysis folder for %s...
\n',Chins2Run{ChinIND})
            mkdir(Chins2Run{ChinIND})
            cd(Chins2Run{ChinIND})
            mkdir('pre')
            mkdir('post')
        end
        if input1 == 'A' || input1 == 'a'

            cd(strcat(outpath,filesep,Chins2Run{ChinIND},filesep,str{1}))
            list=dir(str{2});
            if isempty(list) %create directory if it doesn't exist
                fprintf('Creating analysis folder for %s...
\n',Chins2Run{ChinIND})
                mkdir(str{2});
            end
            cd(str{2})
            outpath = pwd;
            fprintf('\nSubject: %s (%s -
%s)\n',Chins2Run{ChinIND},str{1},str{2});
            cd(CODEdir)
            DPanalysis;
        end
        if input1 == 'S' || input1 == 's'
            outpath =
strcat(outpath,filesep,Chins2Run{ChinIND},filesep,str{1},filesep,str{2});
            fprintf('\nSubject: %s\nConditions: ',Chins2Run{ChinIND});
            fprintf('%s, ',Conds2Run{:}); fprintf('\n');
            cd(CODEdir)
            DPsummary;
        end
    end % Chin loop
end

```

---

---

Subject: Q438  
Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,  
Warning: Ignoring extra legend entries.  
Warning: Ignoring extra legend entries.  
Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1

Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1

Subject: Q438  
Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,  
Warning: Ignoring extra legend entries.  
Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1

Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2

Warning: Ignoring extra legend entries.  
Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1

Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2

Subject: Q438  
Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,  
Warning: Ignoring extra legend entries.  
Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1

Warning: Error updating Legend.

String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2

Warning: Error updating Legend.

---

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

*Warning: Ignoring extra legend entries.*  
*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

*Subject: Q438*  
*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*  
*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D7*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

---

*String scalar or character vector must have valid interpreter syntax:  
post\D2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
post\D7*

*Subject: Q445*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Subject: Q445*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2*

*Subject: Q445*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

---

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

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*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
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*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

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*String scalar or character vector must have valid interpreter syntax:*  
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*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

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*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

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*String scalar or character vector must have valid interpreter syntax:*  
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---

*String scalar or character vector must have valid interpreter syntax:*  
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*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

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*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
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*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Subject: Q446*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

---

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2*

*Subject: Q446*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
post\D2*

*Warning: Ignoring extra legend entries.*

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*String scalar or character vector must have valid interpreter syntax:  
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pre\Baseline\_2*

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*String scalar or character vector must have valid interpreter syntax:  
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*String scalar or character vector must have valid interpreter syntax:  
post\D7*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
post\D2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
post\D7*

*Subject: Q447*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Subject: Q447*

*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*

*Warning: Ignoring extra legend entries.*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:  
pre\Baseline\_1*

*Warning: Error updating Legend.*

---

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Ignoring extra legend entries.*  
*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Subject: Q447*  
*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*  
*Warning: Ignoring extra legend entries.*  
*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
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*Warning: Ignoring extra legend entries.*  
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*String scalar or character vector must have valid interpreter syntax:*  
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*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

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*Conditions: pre\Baseline\_1, pre\Baseline\_2, post\D2, post\D7,*  
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---

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*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D7*

*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_1*

*Warning: Error updating Legend.*

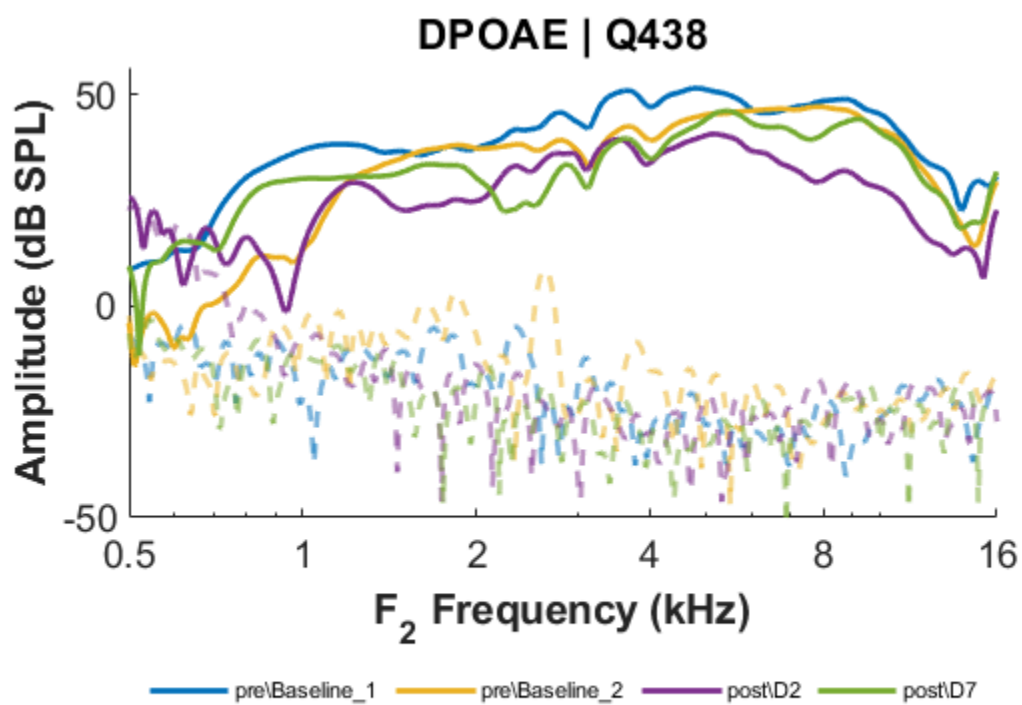
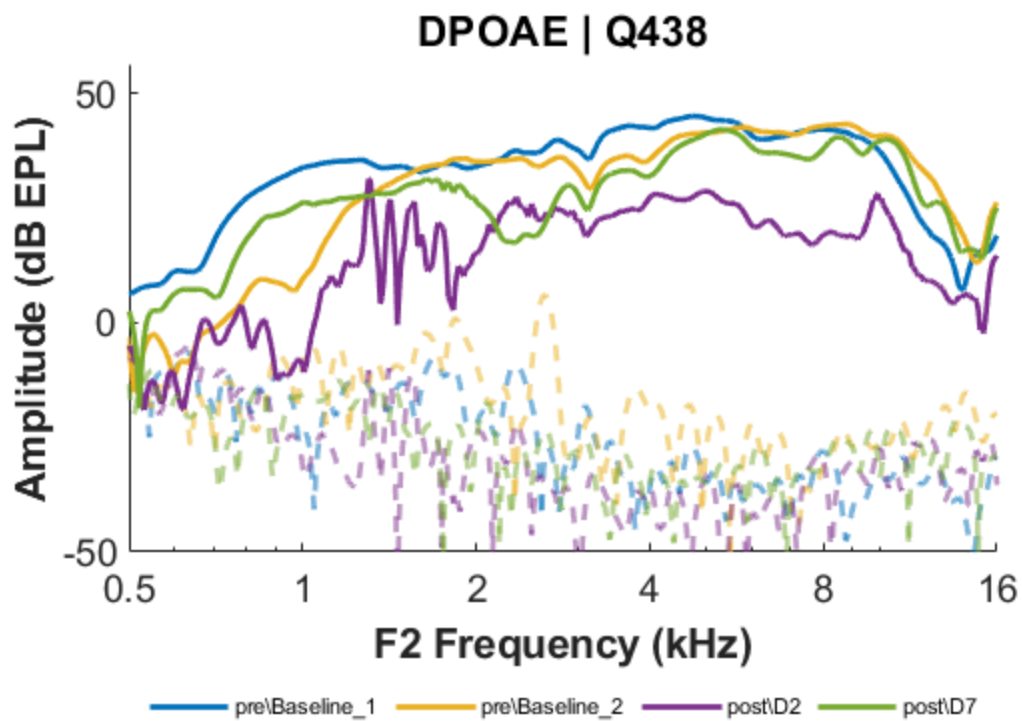
*String scalar or character vector must have valid interpreter syntax:*  
*pre\Baseline\_2*

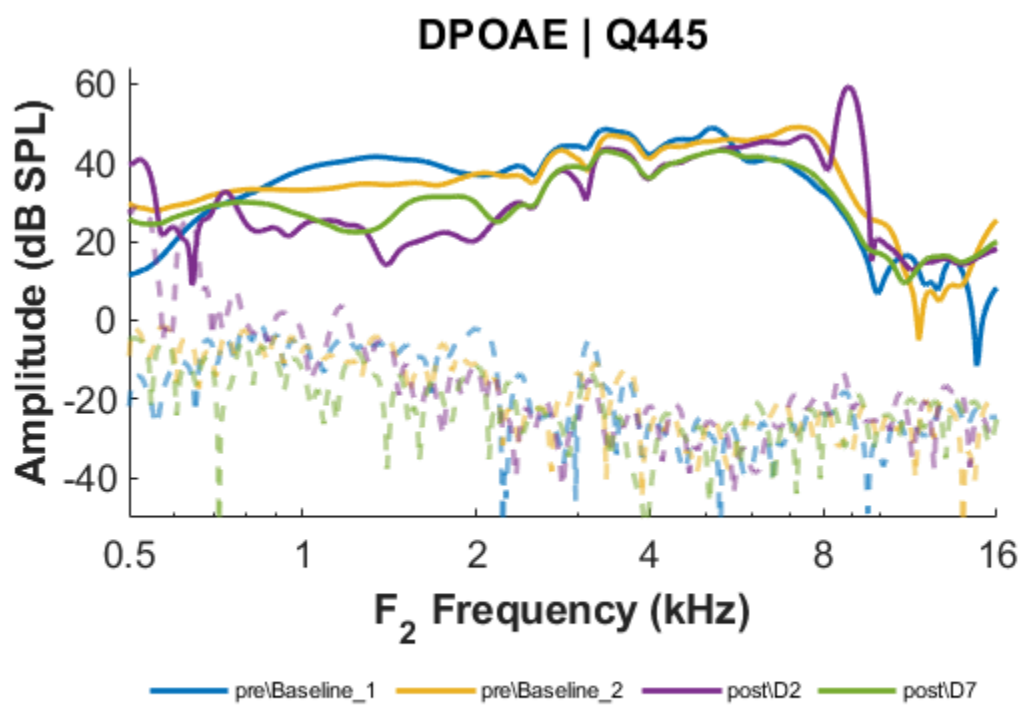
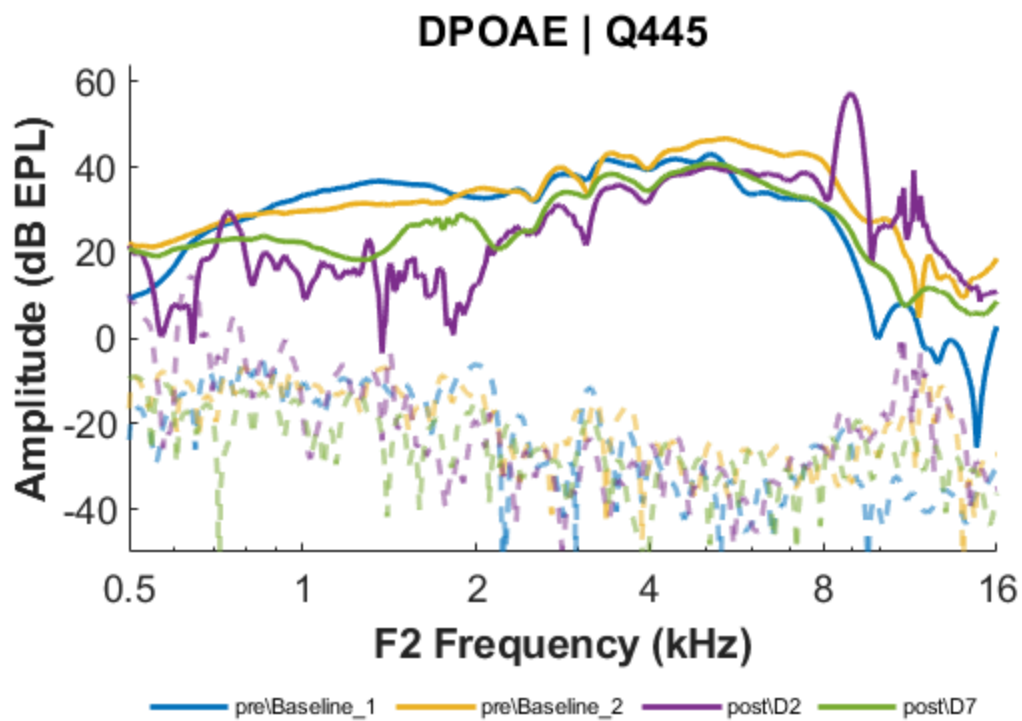
*Warning: Error updating Legend.*

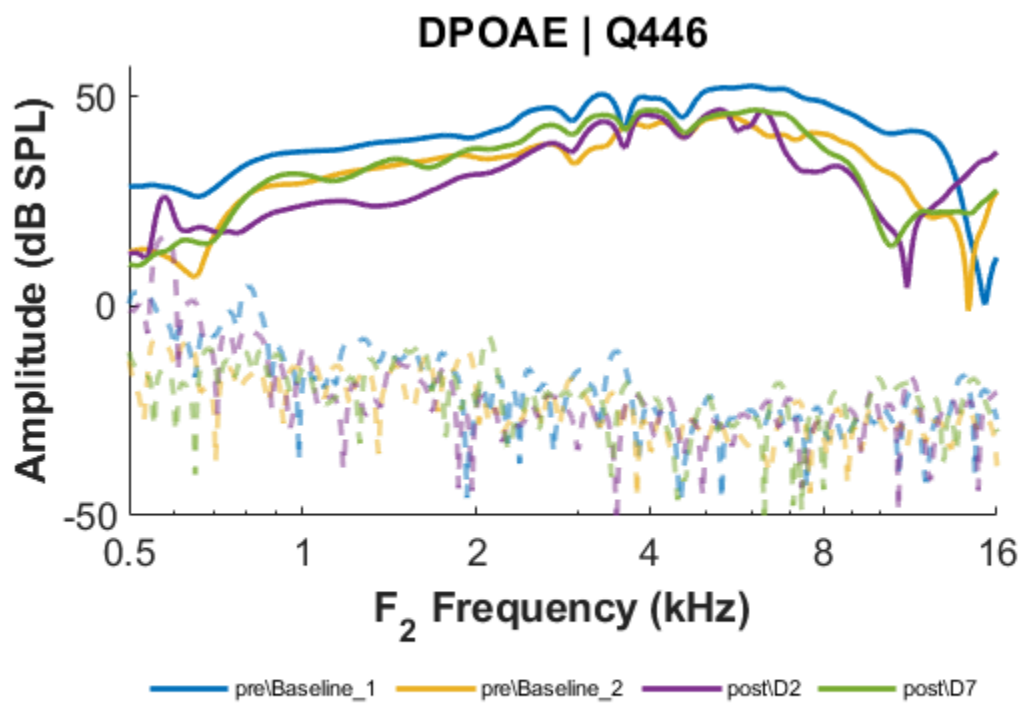
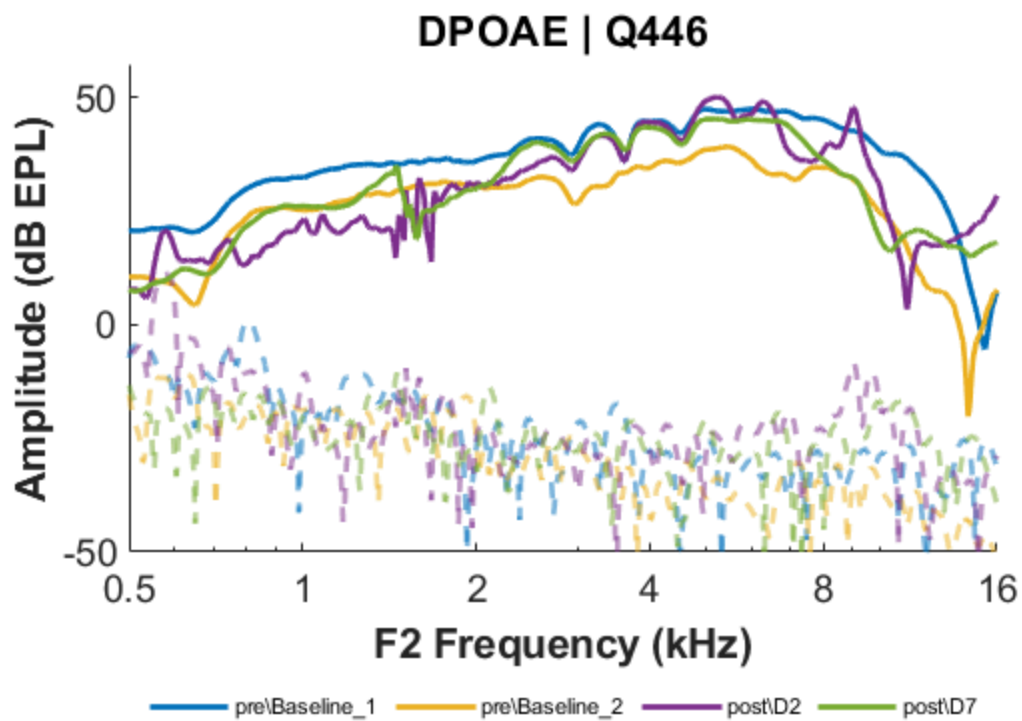
*String scalar or character vector must have valid interpreter syntax:*  
*post\D2*

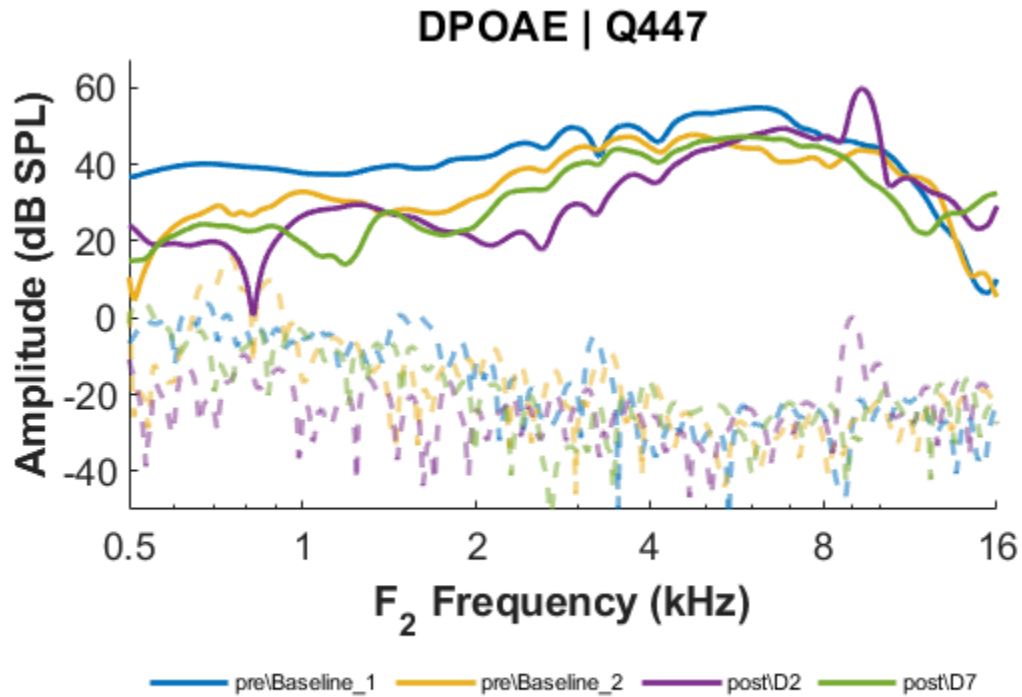
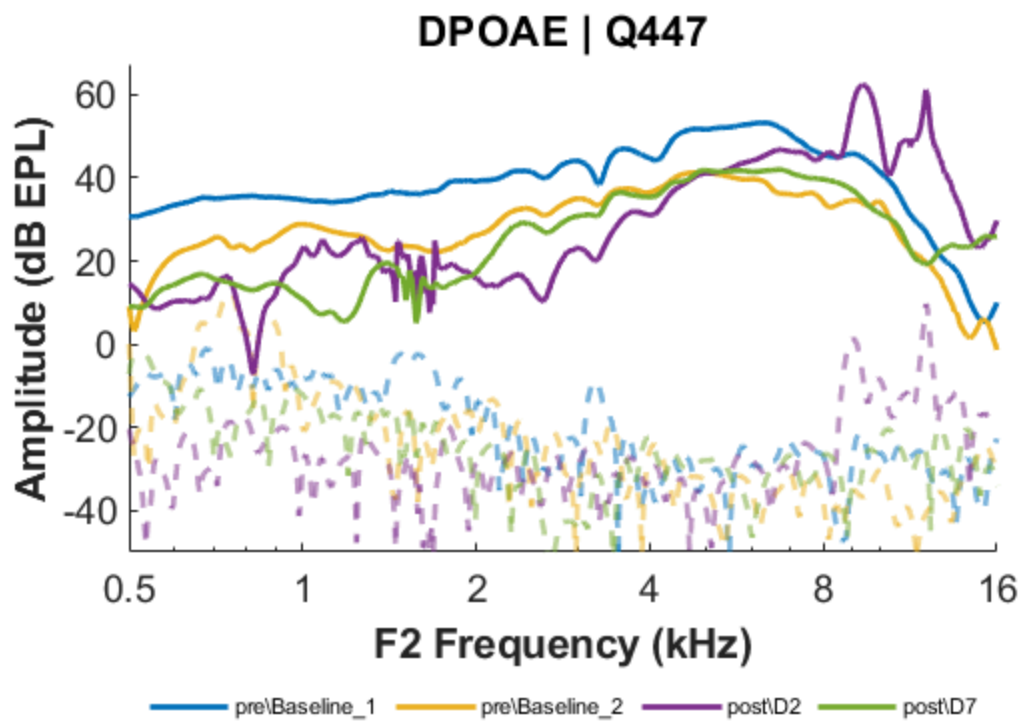
*Warning: Error updating Legend.*

*String scalar or character vector must have valid interpreter syntax:*  
*post\D7*









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